


ACCIDENT FREE

# Safety Manual

JULY 2026

**Be Accident Free**
Team Fishel's culture is based on the premise that excellence is attainable and sustainable. In safety, that means we believe we can be Accident Free and our daily efforts begin and end with that vision in mind. Being committed to Accident Free is our number one core value.

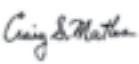
At Team Fishel nothing is more important to the over success of our Team than the health, welfare, and safety of our Teammates. There is no task so pressing or need so urgent that the safety of any of our Teammates should ever be compromised. Our leaders and our Teammates are fully committed to our value to Be Accident Free.

**Empowerment and Accountability**
To be Accident Free each of our Teammates is empowered to make safe choices for themselves and to hold each other accountable for safe behavior. When it comes to safety every Teammate is a leader who has not only the right to make safe choices he/she has the responsibility to choose the path that will ensure that safety is uncompromised. To help ensure safe choices or Teammates are trained to understand the nature of the work they will be engaged in, to recognize the risks that are inherent in that work, and to choose the safest possible option to eliminate them.

**Safety Action Plan and Safety Manual**
Another way we promote a safety-driven culture is through the development of an annual safety action plan (SAP) and safety manual review. The SAP is developed to help us target areas of concern and halt unwanted trends from becoming ingrained habits. It's a tactical plan for ensuring each component of the plan has a roadmap to success. Action plans are a key to the growth of a positive culture and ensure our overall goals and the steps each of us must continue to take to reach them are fully understood.

Team Fishel dedicates selected committee's based on levels of expertise to review the safety manual and update any changes or additions to new policies. These are reviewed by the Vice President of Safety and reinforced with training, tailgates, 411's and communicated at every level of our organization.

**Safe Behavior is Recognized**
Our safety record has allowed us to work for some of the best customers in our business. The best reward we can have as a company is the opportunity to maintain an excellent customer relationship because of our safety record. Our customers, the general public around whom we work every day, as well as other utility owners have every expectation that we will work safely and treat their facilities with respect. The best of our Teammates are recognized and rewarded for their contributions to our safety culture. They understand that we will never be truly productive if we are not safe.



VP of Safety and Human Resources Date: 02/06/2023

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## Rule 101 . . . . . Teammate Safety Guide

Teammates should study the Teammate Safety Guide and familiarize themselves with the contents that apply to their work. If any part of the Teammate policy is not clear, the Teammate should stop and ask their Supervisor or Area Manager for further clarification. The Teammate Safety Guide must be continually used as a reference manual for safe working practices and procedures.

1.0 Process of Safety Program Review:

1) Management performs an annual trend analysis
2) The trend analysis is turned into an annual report for review.
3) After review, management will share the report with the entire management team that will then introduce improvements.
4) After improvement strategies have been placed, management will develop a Safety Action Plan that focuses on revisions or added safety rules.
5) Results: The Safety Action Plan is a way Team Fishel can stay up to date with regulations and enhance the effects safety has on our Teammates.

2.0 It is the responsibility of management to perform regular reviews and audits of the effectiveness of the safety program. The Safety Director, Area Manager and Safety Coordinator are responsible for working together to gain an understanding of the incidents that are occurring and the outcomes, as well as to review what activities (i.e. inspections, audits, training, etc.) are being performed in order to create a low-risk work environment for all.

3.0 The controls that have been put in place and must be followed to create a low-risk work environment include, but are not limited to, the following:

**At the Area Level:**

- At least once monthly the Area Manager reviews the results and activities tracked in the category of “Accident Free” in the Area Scorecard.
- At least once monthly the Area Manager meets with the management team, including the Safety Coordinator, to review incidents and issues that have occurred in the last 30 days, to discuss any necessary corrective actions, including Teammate disciplinary action, and to forecast training needs for the next 30 days.
- The Area Manager is responsible for scheduling and ensuring that an “All Hands” meeting is conducted monthly with the entire team to train or communicate appropriate information and expectations associated with any necessary corrective actions that may lead to a low-risk work environment.

**Company-wide:**

- Safety Reports, including key measurements and an active claim detail, are distributed to the areas on a monthly basis.
- The Safety Director completes and distributes a detailed review of the safety results in an Annual Report.
- The Safety Team, which includes the Safety Director, Safety Manager, Safety Support, and Safety Coordinators, as well as selected members of management, will participate in an annual strategic planning process. This process includes reviewing, revising, and developing a tactical action plan focused in the areas of greatest need and value, with the goal of improving the effectiveness of our safety culture.
- The Annual Safety Action Plan is presented and approved by the Officers of the Company, and the final plan is effective at the start of our Safety Year (January 1).

## Rule 102 . . . . . Rules and Disciplinary Action Policy

1.0 Rules

1.1 Each rule and safety practice must be followed. Ignorance of the rules or practices is not an accepted excuse for a Teammate's neglect or failure.

2.0 Personal conduct

2.1 Teammates should be courteous and considerate to the public and to each other at all times.

2.2 Displays of temper and ill feelings will not be tolerated.

2.3 Practical jokes, horseplay, fighting and wrestling while on duty and at any time on a Team Fishel job are strictly prohibited.

2.4 The use of alcohol and/or drugs is prohibited. Refer to Section 3 of this manual (Substance Abuse Policy) for complete details of Team Fishel's Anti-Drug and Alcohol Misuse Prevention Programs.

2.5 Possession of and/or use of firearms while on duty or at a Team Fishel job site is prohibited.

2.6 Teammates shall refrain from social media use and postings that could result in or pose a safety hazard.

3.0 Corrective action

3.1 Team Fishel maintains a high standard for the conduct of its Teammates. Team Fishel will not tolerate these standards being jeopardized by the actions or behavior of any Teammate. Team Fishel will take prompt and appropriate action, including termination, when any of the following would occur:

- reporting to work under the influence of any alcoholic beverage, illegal or controlled substance,
- the consumption or use of any alcoholic beverage, illegal or controlled substance on work premises,
- inefficiency or neglect of duty,
- dishonesty or theft, including falsification of records,
- destruction of property,
- indecent or immoral conduct,
- insubordination or unheeded reprimands
- unsatisfactory work performance or attendance, and
- acts which interfere with the work and safety of all Teammates.

This list of possible reasons for termination is not all-inclusive, and Team Fishel reserves the right to discipline and/or terminate a Teammate for conduct other than what is described here.

Teammates who fail to meet Team Fishel's expectations or commonly understood standards of acceptable work behavior, or who violate Team Fishel or industry policies or procedures, will be given verbal and/or written notices. Discipline for violations of performance standards or Team Fishel policies may range from reprimand to discharge. The degree of discipline will be determined according to Team Fishel's view of the seriousness of the offense and the circumstances surrounding the matter. However, no such notices are required prior to any disciplinary act, including termination.

3.2 If a Teammate feels that he or she was not treated fairly, he or she may follow Team Fishel's Complaint Procedure (section 1.8 of the Teammate Policy Manual).

3.3 Refer to Section 2, Rule 202 of this manual for a listing of Team Fishel's disciplinary policies for safety rule infractions.

## Rule 103 . . . . . Safety Meetings

1.0 All Teammates are required to attend and participate in safety meetings and training sessions scheduled by the Supervisor or Safety Coordinator.

2.0 The Safety Coordinator, Foreman, or other approved representative shall hold a Tailgate training session at each job site each week. The Corporate Safety Director is responsible for providing relevant training topics each month.

3.0 Upon the completion of this training session, each Teammate is required to sign the training documentation sheet, which must be returned to the office on a weekly basis.

4.0 It is the Safety Coordinator's responsibility to:

4.1 ensure that Tailgates are completed timely and in an effective manner,

4.2 ensure that Tailgates are tracked and retained (scanned into onbase) to ensure internal and external requirements are met, and

4.3 ensure that the safety suggestions submitted by the Teammates are sent to the Corporate Safety Director for use in future Tailgates.

## Rule 104 . . . . . Job Hazard Analysis

1.0 Prior to the start of a job, the Teammate in charge shall ensure a Job Hazard Analysis has been conducted on the job site with all involved Teammates to discuss such subjects as:

- hazards of the job and the job site,
- emergency numbers and location of the closest hospital/medical facility,
- location of first aid kits and fire extinguishers,
- work procedures and equipment to be used, and
- lockout/tag-out procedures as necessary.
- Refer to the Life Saving Commitment book

2.0 Individual job assignments

2.1 It is important for all Teammates to know the exact location of the job. In the event of an emergency, all Teammates should be able to direct emergency vehicles to the job site. If additional Teammates arrive while the job is in progress, the Teammate in charge is responsible for covering the Job Hazard Analysis with them. If significant changes are made to the original plan, another Job Hazard Analysis session shall be conducted.

2.2 The Job Hazard Analysis should also include any subcontractor employees working for Team Fishel at the job site.

3.0 All Teammates are required to participate in a Job Hazard Analysis. All Teammates on the job are required to acknowledge their understanding of the tasks, hazards, equip., etc (by signing the written JHA/Job Safety Briefing)

**Rule 105 . . . . . Individual Responsibility for Safety**

1.0 All work shall be done in accordance with approved safe work practices while following Team Fishels Life Saving Commitments.

2.0 Before starting a job, Teammates must take time to determine if dangerous conditions exist. Teammates working in or around hazardous places, or near energized equipment, must consider the consequences of each act and shall do nothing that might endanger themselves or others.

3.0 Every Teammate should understand the procedures to be followed and the required PPE that must be used for the task.

4.0 Every Teammate should check job site conditions for him/herself and not rely solely upon precautions taken by others for protection.

5.0 Haste at the expense of safety is prohibited.

6.0 All teammates have the authority to stop work.

**Rule 106 . . . . . .Housekeeping**

1.0 Good housekeeping helps to promote safety and efficiency. Accidents can be caused by carelessly placing tools and other objects in places other than their proper storage areas.

2.0 Objects can fall from elevated locations if improperly stored. Teammates shall correct or report to their Supervisors any unsafe condition that may exist in the work place. The following precautions must be followed.

- 2.1 Teammates should maintain good housekeeping in and around office areas, shops and equipment. Loose tools and debris cause accidents.
- 2.2 Teammates should keep electrical panel rooms or areas clean and free of debris, and never use these rooms as storage areas.
- 2.3 Walkways, stairways, fire escapes and aisles shall be kept clean and clear of all debris and material.
- 2.4 Tools and equipment shall be stored in their proper place in trucks, shops, and storerooms. Refer to manufacturers specifications.
- 2.5 Truck cabs should be kept clean and free of trash. Teammates should not transport anything on the dashboards.
- 2.6 Truck bins shall be kept clean and organized
  - 2.6.1 Aerosol cans must be stored in a designated bin to avoid damage, and shall be stored upright with the lids/caps secured.
  - 2.6.2 Slings shall be stored properly according to manufacturer's specifications in a designated bin to avoid damage from chemicals or tools.
  - 2.6.3 Battery tools shall be stored properly away from other tools with the batteries removed.
- 2.7 All spoil piles, materials, and equipment should remain a minimum of two feet from the edge of any trench or excavation.
- 2.8 Truck beds and trailers will be kept neat and in good repair. All wire and other materials or equipment should be stored in the proper bins or racks.
- 2.9 All exposed nails, staples and other sharp objects should be bradded or removed from all boards, packing crates and barrels.

2.10 To prevent slips and falls, all leaks and spills of water, oil or other liquids should be cleaned up immediately.

2.11 Aisles and walkways in storerooms and shops must be properly marked and maintained.

2.12 Teammates are responsible for cleanup after the job is completed.

## Rule 107 . . . . . Suitable Clothing

1.0 All Teammates shall wear clothing that is suitable for the particular type of work he or she is doing and for the weather conditions in which he or she must work.

2.0 When Teammates are exposed to flames or electrical arcs, clothing made of flame-retardant material or 100% cotton with long sleeves must be worn. The sleeves must be rolled down and buttoned.

3.0 Long sleeves shall be worn when there is a potential exposure to poisonous plants or chemically treated poles.

4.0 All shirts will have sleeves that cover the shoulder. Tank tops are prohibited.

5.0 If a customer has additional requirements not stated here or if they are more stringent than Team Fishel's policies, Teammates shall comply with all customer-imposed safety requirements.

## Rule 108 . . . . . Personal Protective Equipment

1.0 General requirements

1.1 Team Fishel will assess each workplace environment to determine if hazards are present or are likely to be present that require the use of personal protective equipment. If such hazards exist or are likely to exist, Team Fishel shall:

- Select and provide the appropriate PPE for each affected Teammate
- Communicate the selection decisions
- Train each Teammate in all aspects related to the PPE (see Rule 108 part 8.0)

1.2 All necessary and essential PPE (as determined by a hazard assessment) will be purchased by Team Fishel and provided to the Teammate at no cost with exceptions and exclusions of preference type or brand that is not purchased through Team Fishel. Where appropriate, PPE will be purchased with consideration to the size of the affected Teammate (traffic vests).

1.3 When the Teammate provides his or her own PPE it shall be with the understanding that Team Fishel is responsible for ensuring it is adequate, properly used, and maintained in a sanitary condition. PPE not deemed to meet this requirement will be removed from service. Teammate furnished PPE must be approved by the Area Manager.

1.4 PPE will be maintained in a sanitary and reliable condition and be replaced routinely as called for by either the manufacturer's replacement schedule or the condition of the item.

1.5 Teammates shall inspect PPE daily prior to its use to insure the integrity and effectiveness of each item. Teammates should look for worn or cracked hardhats, broken glasses, worn protective gloves, faded vests, etc. Items deemed unsatisfactory shall be replaced as soon as possible prior to use in the field or shop.

1.6 Failure to use required PPE is a serious breach of Team Fishel's safety policy and will result in appropriate discipline and/or termination. See section 2 appendix A disciplinary Matrix.

2.0 Head protection

2.1 Helmets SHALL BE WORN AT ALL TIMES ON THE JOB SITE!

2.2 Helmets will be issued by Team Fishel and will meet American National Standards Institute (ANSI) specifications as to dielectric strength and impact resistance.

2.3 Helmets shall not be altered in any manner that would affect the strength or impact resistance. Teammates should never drill holes in or apply paint to a hard hat.

2.4 Hard hats shall be worn by all authorized visitors and subcontractors on the job site.

2.5 Damaged helmets must be replaced immediately. Teammates are responsible for replacing helmets damaged through neglect or vandalism at their own cost.

2.6 A helmet should never have any type of clothing layer underneath it that would compromise the suspension system installed in the helmet (i.e. Beanies or Hoodies). Only approved helmet gear shall be worn on or under the helmet.

2.7 A helmet should never be worn backwards. This defeats the suspension system installed in the helmet and provides little protection.

2.8 Helmets will be worn at service center yards and storage areas in Team Fishel yards, warehouses where posted, and when Teammates are loading and unloading materials.

2.9 Helmets shall be worn while occupying forklifts, backhoes, excavators, trenchers, or any other material-handling equipment. This applies regardless of the cab type.

2.10 Helmets will be worn when installing, testing, removing, or working on all installations.

2.11 Chin straps shall be worn at all times and adjusted properly, allowing no more than 2 finger widths underneath the chin.

2.12 Placement of approved safety stickers shall be on the left side of the helmet only.

3.0 Hand protection

3.1 Suitable cut level 4 work gloves must be worn when there is a risk of hand injuries.

3.2 Dielectric rubber gloves shall be available and within reach at the operator's station when operating drills that have additional grounding protection. See Section 19 for more specific information.

3.3 Dielectric rubber gloves will be issued by Team Fishel when required.

3.4 Cut level 4 work gloves must be worn following the hand protection chart – Best practices for helpful suggestions for preventing hand injuries (See appendix C).

4.0 Cut Resistant Gloves

4.1 Eliminate cut injuries by providing all Teammates with a minimum level 4 cut resistant gloves. All divisions will be required to provide level 4 cut resistant gloves for all field, and shop Teammates. A4 ANSI/ISEA 105 standard Cut Level - 1500 - 2199 grams to cut. Medium cut hazards.

4.2 Positions required for glove policy.

- All field Teammates performing construction work.
- All mechanics working in the shop and yard. (see appendix C)

4.3 Equipment

- 2 types of summer gloves, and 2 types of winter gloves will be provided and available for all Teammates.
- Nitrile coated level 4 cut resistant. (jobs that require dexterity with the hands. (mechanic work) Summer / Winter
- Driver glove with a level 4 cut resistant for harsh manual work. (Handling a shovel, other tooling) Summer / Winter

4.4 Procedures

As of June 1, 2019 all divisions will be required to transition over to hand protection that meets a minimum ANSI Level 4 cut resistant gloves for all Teammates, unless a customer requires a higher cut rating per glove. All field and mechanic Teammates will be provided level 4 cut resistant gloves to eliminate cuts from the field. Different styles of gloves will be available for all divisions to purchase through an approved vendor.

4.5 Hand and Finger Hazards

The following are common hand and finger hazards that contribute to injuries at Team Fishel:

4.5.1 Mechanical hazards are equipment that shear, spin, pound, crush, pinch, puncture and cut.

- Pinch Points - avoid placing your hand between moving objects.
- Automated Machine - relays, remote controllers, delay timers and robotics can cause machinery to start up suddenly.
- Rotating Machine - rotating devices such as drill bits, saw blades can be very hazardous.
- Machine Guards - do not remove machine guards or shields.

4.5.2 Environmental hazards like heat, vibration, sparks, cold, rough materials, electricity and heavy or sharp objects may present a problem in any work activity. Appropriate hand protection must always be identified prior to starting any activity in your JHA. Refer to appendix C in section 1 General rules.

- Cut resistant gloves are required and should be used for tasks requiring hand cutting or trimming with sharp blades. They should also be used when working around sharp-edged steel pieces, etc.

5.0 All Rubber goods testing must be completed by a 3rd party testing facility. (See Rule 708)

5.1 Rubber gloves shall be given an air test daily before use and immediately following any incident that could have caused damage. The manual glove inflator is the preferred testing method. Test gloves by rolling the cuff tightly to compress the air within the glove if a manual glove inflator is not available.

5.2 Rubber gloves with defects shall not be used. Defective gloves shall be immediately taken out of service; all fingertips cut off and disposed of.

5.3 Rubber gloves shall be dielectrically tested every six months. When tested, the rubber gloves shall be stamped with an expiration date that will allow for six month usage. Areas that wish to advance the testing schedule are free to do so.

5.4 Rubber sleeves shall be dielectrically tested every twelve months. Areas that choose to advance this testing schedule are free to do so.

5.5 When tested, the rubber sleeves shall be stamped with an expiration date that will allow twelve (12) months usage.

5.6 ANSI F696-24 This specification covers leather protector gloves and leather protector mittens to be worn over electrical workers' rubber insulating gloves and rubber insulating mittens. It is intended that the gloves specified herein shall fit snugly and without undue wrinkles over rubber insulating gloves and rubber insulating mittens specified in Specification D120. The gloves of this specification are intended to prevent mechanical and thermal harm to rubber insulated gloves when working on live parts or conductors.

6.0 Foot protection

6.1 Appropriate, well-constructed footwear must be worn.

6.2 For all Teammates, except office support, suitable footwear shall:

- be a good grade of construction type work boot,

- be made primarily of leather, and not made of plastic, vinyl, cloth or canvas, and
- be tall enough to cover the top of the ankle.

* Safety toed work boots are required to be worn at all times while on field job sites, active yards, outside designated walking paths in mechanic shops/warehouses, and other work locations where a foot injury could be reasonably anticipated. Work boots shall be constructed with a sturdy upper leather section that extends above the ankle, a sole designed with anti-slip and multi-terrain tread, reinforced toe-box (metal or composite) that meet the impact and compression requirements, ANSI Z41–1999 or ASTM F2413-05, with the code printed, stamped, or stitched, etc. on at least one boot. The leather covering over metal reinforcement (steel-toe) must be intact with no bare metal exposed.

6.3 During required work activities where there is a toe impact hazard, when required by a customer, or at the discretion of Team Fishel management, safety shoes may be required.

6.4 Team Fishel may provide temporary, slip-on safety caps in situations where safety caps are an appropriate substitution for safety shoes.

6.5 All footwear shall be furnished by the Teammates, except for dielectric rubber boots, which will be issued by Team Fishel when required.

6.6 Boots with loose or worn-through soles or worn down heels shall not be worn.

6.7 Footwear worn while climbing ladders, towers, poles, etc. shall have a defined heel. Footwear used when climbing shall be constructed in such a manner as to prevent the climber from slipping.

6.8 Tennis shoes, athletic shoes, hiking boots and sandals are prohibited when working in a hazardous working environment.

6.9 Rubber boots or rubber overshoes will be worn when working in fresh concrete.

6.10 Dielectric rubber boots or EH-rated work boots shall be worn at all times when operating a directional drill, or when performing locating tasks with directional drill operations.

7.0 Eye protection

7.1 Approved safety glasses with side shields and/or face shields will be issued by Team Fishel and shall be worn anytime an eye risk is present such as:

- while mowing or performing other landscape or restoration operations, and
- when using chainsaws, cut-off saws, grinding, cutting, and polishing equipment, jackhammers, tampers, etc.

7.2 Approved safety goggles and/or face shields shall be worn where there is reasonable probability of eye injury such as, but not limited to, the following examples:

- breaking of concrete, brick or plaster, including chipping, chiseling, grinding, steam cleaning, power buffing, sanding, tamping, or drilling of metal,
- observing or helping in welding of any type,
- blowing out equipment or cleaning with compressed air,
- working in high dust areas,
- handling chemicals when there is a possibility of splashing,
- applying herbicides or pesticides, or
- connecting, disconnecting, jumping, removing or installing batteries.

7.3 If any of the above hazards are severe, face shields should be worn over safety glasses with side shields or goggles for extra protection. See Appendix B: Eye Protection Chart – Best Practices for helpful suggestions for preventing eye injuries.

7.4 Face and eye protection shall be kept clean and in good repair and must meet ANSI Z87+. Teammates should request replacement eye protection from a Supervisor or Safety Coordinator.

7.5 Eye and Face Arc Flash Protection
OSHA has revised the requirements for head and eye protection for arc flash exposure. Effective April 1, 2015 head and eye protection must meet the following requirements when performing work on energized equipment:

| Exposure Category | Minimum Head and Eye Protection | | |
|---|---|---|---|
| Refer to notes 1, 2, 3 | Helmet + Safety Eyeglasses | Helmet + Arc Rated Face Shield | Helmet + Arc Rated Face Shield + balaclava, or Helmet + Arc Rated Hood with integral face shield |
| Open Air | 2 – 8 cal/ | 9 – 12 cal/ | ≥ 13 cal/ |
| Enclosures | 2 - 4 cal/ | 5 – 8 cal/ | ≥ 9 cal/ |

1) Gloving work on most primary circuits is open air exposure. Open air is defined as work on equipment / conductors not contained within an enclosure. Proper cover-up must be used on exposed parts or conductors in the work area except the one being worked.

2) Enclosures include secondary / primary equipment with energized parts or conductors bound within a box with limited access. This configuration will direct the arc blast energy towards the worker and greater protection is required. Enclosures include: Self Contained Meter Bases, CT Cabinets, Switchgear, Hand Holes, Splice Boxes, Connection Boxes, and Network Protectors.

3) Single Phase lines only: For exposures involving single phase arcs in open air, the arc rating for the employee's head and face protection only may be 4 Cal / $cm^2$ less than the estimated incident energy.

8.0 Hearing protection

8.1 Noise level surveys have been conducted to identify certain equipment producing noise levels that may be harmful to Teammate hearing.

8.2 Teammates should wear approved hearing protection, issued by Team Fishel, when working near machinery or equipment that emits a noise level in excess of 85 dBA (Decibels "A" Scale). Examples of this type of equipment include jackhammers, tampers/ wackers, concrete/chain saws, bench grinders, hoe rams, air spades, wood chippers, certain trenchers, tractors, emergency generators, and high voltage circuit breakers.

8.3 Plain cotton is not an acceptable hearing protective device.

8.4 Earbuds are not an acceptable means of hearing protection and shall not be worn while working on job sites or while operating equipment.

8.5 Replacement earplugs should be requested from a Supervisor or Safety Coordinator.

9.0 Safety vests

9.1 Safety vests will be issued by Team Fishel. In lieu of a safety vest, teammates may choose to purchase the approved reflective shirts from the Team Fishel store.

9.2 Safety vests shall be worn at all times WHEN WORKING IN OR NEAR MOTOR-VEHICLE TRAFFIC.

- Teammates must use ANSI-Approved Type 2 for daytime operations unless state law requires a Type 3, vests when performing night work.
- Night work is defined as any work occurring after the official sunset and prior to official sunrise.
- While working near energized job sites, teammates must wear a Team Fishel FR vest or FR Hi-vis shirt. Non FR vests or shirts are not permitted when working within the MAD.

9.3 A safety vest will not be required when a Teammate is performing a task in which the vest itself presents a hazard (i.e. working in a trench with shoring, a confined space, tower climbing, welding, or aerial work).

9.4 A Teammate should request a replacement if his or her safety vest is worn or faded. Replacements can be requested from a Supervisor or Safety Coordinator.

10.0 Training and Usage

10.1 Teammates shall be trained to determine when PPE is necessary and what PPE is necessary for a specific job. Additionally Teammates shall be trained in the proper use, selection, maintenance, adjustment, cleaning, and replacement of any personal protective equipment that is required by Team Fishel for the safe operation of machinery or performance of job functions.

10.2 Training related to Rule 108 will occur at orientation, annually through the tailgate program, and as necessary to provide information on revised OSHA and company policies or when a Job Hazard Analysis necessitates a change in PPE type or usage.

10.3 Retraining will occur when it has been determined that Teammates have demonstrated a lack of use, improper use, insufficient skill or knowledge of the PPE, changes in the type of PPE or changes in the workplace and company policy affecting its use.

10.4 Each Teammate shall demonstrate an understanding of the training as well as the ability to use the PPE properly before being assigned to perform any work requiring the use of PPE.

10.5 All PPE training shall be documented and entered into the Human Resource Information System (HRIS) as part of the Teammate's permanent record.

## Rule 109 . . . . . Jewelry

1.0 Teammates shall not wear chains, earrings, wristwatches, rings, large belt buckles, or other jewelry when working on a job or in an area where these items create a hazard.

2.0 Jewelry and clothing (such as watchbands, bracelets, rings, key chains, necklaces, metal frame glasses, metal headgear, or cloth with conductive threads) shall not be worn where they present an electrical contact hazard.

3.0 Jewelry such as rings, wristwatches, necklaces, or bracelets shall not be worn when operating or working around heavy equipment.

4.0 Teammates must follow the safety practices recommended by the manufacturer when operating any type of heavy equipment.

## Rule 110 . . . . . Fire Prevention And Protection

1.0 Prevention

1.1 Teammates shall not smoke where smoking constitutes a fire hazard.

1.2 Combustible waste material shall be deposited in metal containers with metal lids.

1.3 Yards shall be kept clean and free of combustible materials. Weeds and other undesirable vegetation should not be permitted to grow in yards, around oil tanks or re-fueling stations, or around buildings and pole yards.

1.4 No combustible material shall be stored outdoors within 10 feet of a building or structure.

1.5 Only approved safety cans and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans should only be used for the approved contents it was designed for and handling of flammable liquids in quantities of five gallons or less (yellow is for diesel/red is for gas). The safety cans and portable tanks should be plainly labeled to show their contents.

1.6 All cans that contain five gallons or less of combustible material shall be equipped with spark arrestors that should not be removed.

1.7 An approved safety can or a barrel with a hand pump must be used when it is necessary to carry gasoline or diesel fuel to the work site.

1.8 When stored indoors, quantities of flammable and combustible liquids in excess of 25 gallons shall be stored in an approved cabinet. The cabinet(s) will be plainly labeled to read "FLAMMABLE – KEEP FIRE AWAY."

1.9 No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet. No more than three such cabinets may be located in a single storage area.

1.10 Only properly licensed individuals may install or maintain LP gas piping, valves, and regulators.

1.11 Refueling stations should have conspicuous and legible NO SMOKING signs.

1.12 Refueling stations shall be provided with at least one fire extinguisher having a rating of not less than 20-BC. The extinguisher must be located within 75 feet of each pump, dispenser, and underground fill pipe opening.

2.0 Protection

2.1 All Teammates should be familiar with the fire plan at their work location.

2.2 Teammates should never store equipment or material in areas that would obstruct access to fire fighting equipment.

2.3 A fire extinguisher, rated not less than 2A, shall be provided for each 3000 square feet of the protected building area. Travel distance from any point in the protected area to the nearest fire extinguisher should not exceed 100 feet.

2.4 One or more fire extinguishers, rated not less than 2A, shall be provided on each floor. In multi-story buildings, at least one fire extinguisher will be located next to the stairway.

2.5 A fire extinguisher rated not less than 10B shall be provided within 50 feet of wherever more than five gallons of flammable or combustible liquids or five pounds of flammable gas are being used on the job site. This requirement does not apply to the fuel tanks of motor vehicles.

2.6 All Teammates should know where fire extinguishers are located in the shop, office, trucks and job sites.

2.7 Fire extinguishers are intended for use on small, incipient stage fires. A Teammate should never use a fire extinguisher to put out a medium sized or large fire, a fire that is spreading, or a fire that is threatening to block the escape path. Teammates should LEAVE THE AREA IMMEDIATELY and notify the Fire Department.

2.8 To use a fire extinguisher, all Teammates shall learn the PASS system:

- PULL the pin.
- AIM at the base of the fire (never aim at the top of the fire).
- SQUEEZE the handle.
- SWEEP the nozzle from side to side.

2.9 Fire extinguishers located in offices and shops should be inspected MONTHLY.

2.10 Truck fire extinguishers should be inspected DAILY. These inspections should answer the following questions:

- Is the fire extinguisher fully charged?
- Is the fire extinguisher easily accessible?

- Is the fire extinguisher mounted correctly with original hardware?
- Is the safety pin in place and working?
- Is the nozzle and/or hose worn or cracked?
- Is the hanging bracket securely in place?
- Is the location of the fire extinguisher clearly marked?
- Is there an inspection tag in place?

2.11 Discharged or untagged fire extinguishers must be replaced. Any problems with the fire extinguisher should be reported to the local vendor or the Safety Coordinator.

2.12 All fire extinguishers shall be tested ANNUALLY by a certified inspector and tagged to indicate the month and year of inspection.

3.0 Training

3.1 Training on the safe and effective use of fire extinguishers shall be provided to all Teammates at orientation and annually thereafter as part of routine tailgate training.

3.2 Training will familiarize all Teammates (field, shop, and office personnel) with the use and maintenance of the extinguishers used in their respective areas and the hazards associated with incipient-stage fire fighting.

3.3 All training will be documented and entered into the HRIS system as part of the Teammate's permanent record.

## Rule 111. . . . . Working Above or Around Water

1.0 When a Teammate is engaged in work where he or she may be pulled, pushed or fall into water and the danger of drowning exists, these procedures must be followed:

1.1 All Teammates associated with work activity in or near water will be provided with training of the potential hazards.

1.2 All Teammates will use a Coast Guard approved personal flotation device (life jacket).

1.3 Prior to and after each use, the life jacket shall be inspected for defects which would alter its strength or buoyancy. Defective life jackets must not be used.

1.4 If Teammates are working on structures that are immediately adjacent to or extend over water like pipelines, walkways, wharves, piers, bridges, etc., a throwable flotation device, such as a ring buoy or a life ring, must be available.

1.5 The flotation device should have a 90-foot rope attached, preferably made of polypropylene.

1.6 The flotation devices cannot be more than 200 feet apart.

1.7 When working above water, body harnesses and lanyards shall be worn at all times.

1.8 OSHA also requires that at least one small boat be immediately available at any location where Teammates are working over or next to water. The boat should be equipped with life jackets and a ring buoy and it shall be manned at all times while work is being performed.

1.9 Teammates are not permitted to work alone when working in or near water.

1.10 Any work near or in water must be documented and discussed during the Job Hazard Analysis.

**Rule 112 . . . . . Drinking Water**

1.0 An adequate supply of drinking water shall be supplied at all places of employment and job sites.

2.0 Portable containers used to dispense drinking water must be tightly closed and equipped with a tap. Water should not be dipped from containers.

3.0 Any container used to dispense drinking water shall be clearly marked as to the nature of its contents and shall not be used for any other purpose.

4.0 A common drinking cup is prohibited.

5.0 Where single service cups (to be used only once) are supplied, both a sanitary container for the clean cups and a receptacle for the used cups shall be provided.

6.0 Drinking water temperature prior to consumption shall be kept at a temperature of less than 80 degrees Fahrenheit.

7.0 Refer to the hydration chart in section Appendix B2

**Rule 113 . . . . . Hazardous Conditions and Criminal Activities**

1.0 Each Teammate is responsible for promptly reporting and guarding against any hazardous condition that may result in injury or property damage.

2.0 Teammates who suspect or witness criminal activity should preserve their own safety and the safety of others and report such activities immediately to their Supervisors, their Safety Coordinators, and/or other proper authorities.

**Rule 114 . . . . . Customer/Private Property**

1.0 Teammates shall not jump over barriers or fences. If possible, appropriate ladders should be used to climb over fences as a last resort.

2.0 Except in an emergency, a customer's permission should be obtained before using driveways or driving across private property.

3.0 Any damage to customer property caused by Teammates in the course of their work must be reported to the appropriate Supervisor.

4.0 Teammates should not enter or cross private property unless they have permission from the owner to do so.

**Rule 115 . . . . . Horseplay and Practical Jokes**

1.0 Horseplay is prohibited on the job as an unsafe act.

- 1.1 All Teammates must not tolerate or participate in horseplay on the job, either as a participant or as an observer.
- 1.2 Participants could be held to civil or criminal responsibility if someone is injured during horseplay.

1.3 Injuries occurring during horseplay will not be certified under any worker's compensation law.

1.4 If horseplay is a continuing problem that a Teammate is unable to stop, he or she should report it to a Supervisor.

2.0 Practical jokes are prohibited on the job as unsafe acts.

2.1 Practical jokes are only funny until a Teammate is injured.

2.2 Teammates should not engage in practical jokes, either as an accomplice or as an observer.

2.3 Participants could be held to civil or criminal responsibility if someone is injured during a practical joke.

2.4 If practical jokes are a continuing problem that a Teammate is unable to stop, he or she should report it to a Supervisor.

## Rule 116 . . . . . .Reporting Accidents and Injuries

1.0 At least one Team Fishel representative shall escort a Teammate requiring medical treatment, first aid and beyond to the medical facility. A Teammate trained in first aid shall determine if an injured Teammate requires medical transport by ambulance and call 911 immediately. In areas where 911 is not active the Safety Coordinator shall publish a listing of all appropriate local medical facilities, which shall be placed in every company vehicle for use as necessary. A copy shall also be posted at a conspicuous site in each office where 911 services are not available.

2.0 Team Fishel requires both a post-accident breath alcohol and drug test for any Teammate injury and motor vehicle accident, and for any job damage that results in a loss or expected loss of more than $5,000. The Teammate who is taking the breath alcohol and drug test shall be escorted to the testing facility, and Team Fishel's testing requirements shall be followed (see Team Fishel's Substance Abuse Program in Section 3 of the Safety Manual).

3.0 If a Teammate is injured while on the job, the attending physician must be notified that Team Fishel can provide restricted work duties for the injured Teammate.

4.0 Teammates are required to promptly report all accidents, injuries, illnesses, near misses, hazards, unsafe equipment, and unsafe acts to his or her immediate Supervisor (i.e. Crew Leader, Foreman, Supervisor, or Safety Coordinator).

5.0 An incident report is required on MDFR for any Teammate injury, motor vehicle accident, or job damage. See Appendix D & E of this section: Team Fishel's Accident Reporting & Investigation Procedures.

6.0 Failure to report a work-related injury in a timely fashion could result in Team Fishel challenging a claim for workers' compensation benefits.

7.0 An accident or incident, including a near-miss incident, involving the use of a fall protection plan and fall protection equipment must be reported to the Safety Director within 24 hours.

## Rule 117 . . . . . Emergency Response

1.0 These procedures should be followed if an accident or other emergency occurs which requires assistance from emergency responders (ie: gas hit/medical emergency):

1.1 Call 911.

- In areas where 911 services are not active, the Safety Coordinator shall publish a listing of all appropriate local emergency or treatment facilities and provide such list to each Supervisor, Foreman, and Crew-Leader and place a copy in each company vehicle. This list shall be updated periodically.
- This list shall also be placed in a conspicuous location at each office where 911 services are not available.
- The caller should speak slowly and plainly and provide the exact location, the nature of the emergency, description of any injuries, and whatever assistance is required, such as an ambulance, fire or police department.

1.2 If an accident results in an injury, provide immediate medical attention as necessary.

1.3 Control the scene.

1.4 Take immediate corrective action to remove or control the hazard.

1.5 Immediately notify the Area/Division Manager, the Safety Coordinator and/or the Safety Director of any serious incident.

## Rule 118 . . . . . Supervision of Teammates

1.0 Enforcing rules

1.1 Crew Leaders, Foremen, Supervisors, Safety Coordinators, and the Area Manager are responsible for enforcement of Team Fishel's safety rules.

1.2 If a Crew Leader, Foreman, and Supervisor finds a Teammate unfit for work or unwilling to work in accordance with the safety rules, the disciplinary procedures listed in this manual must be implemented.

2.0 Assigning duties and responsibilities

2.1 Crew Leaders, Foremen, and Supervisors shall assign duties to those Teammates who, by reason of experience or training, are qualified to perform the operation and recognize the hazards involved.

3.0 Designating authority and combining crews

3.1 When two or more Teammates are working on the same job, one will be designated as "in charge" by the Crew Leader, Foreman, and Supervisor.

3.2 The Teammate in charge will require that the safe work practices outlined in this manual and in the Teammate Safety Guide, as well as those based on common sense, are in effect and practiced at all times.

3.3 Each Teammate will be informed of who is in charge and promptly notified when a change in authority is made.

3.4 When two or more crews are assigned to work together, one Teammate will be designated to be in charge of the combined crew.

4.0 Crew Leaders, Foremen, and Supervisors will be required to do inspections, use and maintenance of proper protective devices, tools and equipment. The use of improper or unsafe devices, tools and equipment will not be permitted.

4.1 When defects in devices, tools or equipment are reported, the Supervisor must see that such defects are corrected or that the defective equipment is removed from service.

5.0 Crew Leaders, Foremen, and Supervisors will require that Teammates maintain a neat and orderly job site.

6.0 Crew Leaders, Foremen, and Supervisors will require that fire extinguishers be in their proper places and ready for use.

7.0 Crew Leaders, Foremen, and Supervisors will require that first aid kits and the proper supplies are available and ready for use.

8.0 Crew Leaders, Foremen, and Supervisors will require the placing of snow fencing, barricades, street plates, warning signs, flags, warning lights, or any other equipment needed to protect the public.

9.0 Crew Leaders, Foremen, or Supervisors are responsible for conducting routine safety meetings as required.

9.1 These meetings should be devoted to the discussion of safety subjects such as, but not limited to, the following:

- rules from this manual and the Teammate Safety Guide,
- safety rules, methods and hazards applying to the work in progress,
- trenching and excavation procedures and hazards,
- confined space procedures and hazards,
- discussions of any accidents, near misses, or observed unsafe practices;
- driving safety,
- accident reports, safety bulletins, posters, or any other material distributed by the Safety Coordinator or Safety Director, and
- first aid and CPR discussion and practice.

10.0 Before a complex job or task is started, the Supervisor and Safety Coordinator should conduct a special safety meeting with all involved Teammates.

10.1 All details of the job should be discussed.

10.2 The Supervisor and Safety Coordinator should be satisfied that all Teammates involved in the work understand the precautions that must be observed and the procedures to be followed.

10.3 The special safety meeting does not eliminate the need for the weekly Tailgate conferences at the job site.

10.4 It is the Area Manager's responsibility to ensure that Life Saving Assessments are completed timely. The Safety Coordinator, Area Manager, Division Manager, Project Manager and Supervisor(s) are responsible for completing the minimum required amount of assessments per month. Work conditions that are identified as a Delta must be corrected immediately or as soon as possible and the appropriate Supervisor/ Foreman must be notified of the action taken. All pSI/F's identified on the Life Saving Assessment are required to complete a Root Cause Meeting and a Root Cause Analysis within 5 days of assessment.

## Rule 119 . . . . . New Teammate Safety Orientation

1.0 The Safety Coordinator is responsible for delivering the safety component of the New Teammate Orientation within the first full week of a new Teammate's employment.

- 1.1 Orientation and safety training must comply with the requirements set by the Corporate Safety Department.
- 1.2 Any Personal Protective Equipment (PPE) issued by Team Fishel must be provided to the new Teammate prior to beginning work.

## Rule 120 . . . . . Stop Work Authority

1.0 The Competent Person is one who:

- by way of training and/or experience is knowledgeable of applicable standards,
- can identify hazards in the operation,
- is designated by the employer and
- has the authority to take appropriate actions.

2.0 Stop work authority is the authority of any Teammate to stop work as the result of a potentially dangerous situation, the results of a dangerous situation, or in the event the Teammate(s) has a question or concern of the health and safety of another Teammate(s) (HSE). Teammates will be issued a stop work authority card and are expected to use it when there is a concern or question around safety of the teams and individuals. Stop work should be documented as follows:

- Name
- Date
- Reasoning for use of Stop Work

3.0 In the event stop work authority is used:

- No further work will resume until the issues and concerns are properly addressed.
- Punishment or harsh behavior towards the Teammate administering the stop work authority will not be tolerated.

4.0 Management is responsible for promoting an environment where Teammates feel free to issue a stop work authority at anytime they feel the work practice is unsafe for themselves or other Teammates.

5.0 When an unsafe condition is identified, the Teammate must:

- Stop work immediately.
- Coordinate with the Foreman, Supervisor, and/or the Safety Coordinator regarding the issue.
- Notify all affected parties of the stop work authority.
- Take corrective action towards the issue and resume work only after the issue has been addressed.
- Document all information regarding the stop work authority for future knowledge and job preparation.

6.0 The documentation of the stop work authority should be reviewed by supervision including the Safety Coordinator and Area Manager to measure the participation, quality and follow up, trend common issues, identify opportunities for improvement, and provide knowledge to Teammates about preventive actions. The information compiled and discussed between the parties reviewing the stop work authority should be reviewed with all affected Teammates to provide corrective actions and overall project satisfaction.

## Rule 121 . . . . . Training & Development

1.0 The Corporate Safety Director is responsible for the development of the training requirements and Teammate development programs to ensure a risk-free environment and to maximize our ability to reach our goal of being "Accident Free." It is the Safety Coordinator's role and responsibility to deliver the required training in an effective and timely manner in accordance with Team Fishel's Safety Training Matrix, and any additional requirements that may be a focus for the current year as outlined in Team Fishel's Annual Safety Action Plan (SAP). The Safety Coordinator is required to develop a quarterly training plan and schedule, which must be approved by the Area Manager.

2.0 The Safety Coordinator is responsible for ensuring that a Training Class Sign-In Sheet is completed for any training event conducted. It is essential that the proper training code is provided on the sign-in sheet with the description of the class. The Office Manager is responsible for ensuring that the training is entered into the HRIS with the proper code.
The sheet is retained at the local office, along with a copy of the training materials provided.

3.0 It is the responsibility of each Area to ensure every Teammate is adequately trained to safely perform their assigned duties. Such training shall include the task, the safe use of any tools and equipment necessary to do the task, and information necessary to recognize conditions that may adversely affect their ability to complete the task.

# APPENDIX A:
# INJURY AND ILLNESS PREVENTION SAFETY ACTION PLAN

## Personal Protective Equipment Policy Statement:

This practice addresses the mandatory use of personal protective equipment (PPE) for head, eye, foot, and hand protection, as well as the continued use of high visibility traffic vests, by all Fishel Teammates. This practice will be overriding unless a specific exception is addressed here or in the Team Fishel Safety Manual.

The purpose of this policy is to help protect Fishel Teammates from exposure to work place hazards and the risk of injury through the mandatory use of personal protective equipment (PPE). PPE is not a substitute for more effective measures such as engineering controls or risk remediation through job controls. It is a significant component of a multi-faceted approach to Teammate safety and the reduction of work-related injuries and will be used in concert with other control measures regardless of the tasks being performed.

All affected PPE will be provided, used, and maintained in compliance with OSHA regulations and Team Fishel policies as outlined in Section 1 of the Team Fishel Safety Manual or any specific section for which specialized PPE is required or addressed. Although equally important to overall Teammate health and safety, this policy does not address respiratory protection (section 12), hearing protection (section 17), fall protection (section 14), or protections from exposures to industrial hygiene hazards associated with Confined Space entry (section 9). Those programs and their associated PPE are addressed separately in the Team Fishel Safety Manual.

**Minimum Protection:**

Teammates will be issued safety glasses, gloves, helmets, and vests. (Teammates are required to provide and use a proper safety-grade of work boot when on Team Fishel work sites.) Eyewear and gloves will be provided by each operating Area in a manner and quantity consistent with their job types and personnel needs. Traffic vests must conform to the ANSI Class 2 standards unless the nature of the work being performed requires a Class 3 garment. Teammates working either indoors (Technology Teammates) or actively using fall protection PPE (aerial work) are not required to wear traffic vests. Teammates engaged in hot work where the vest might pose a fire risk are also exempt from wearing vests. Once the exempted activities cease (except for Technology Teammates) the vest is required PPE.

Gloves (minimum cut level 4) and safety glasses (must be ANSI Z-87+) shall be selected and used with consideration given to the nature and scope of the tasks being performed. Team Fishel Safety Manual, Section 1, Appendix B and C lists a number of selected tasks and the appropriate protective equipment recommended.

**Sanctions:**

Teammates who fail to abide by this policy will be subject to disciplinary action up to and including termination. See section 2 appendix B disciplinary matrix.

# APPENDIX B:
# TYPE OF FACE AND EYE PROTECTION

| Task | Safety Glasses w/ sideshields | Torch Goggles | Goggles | Welding Helmet | w/ Faceshield |
|---|---|---|---|---|---|
| Sawing wood, or plastic | X | | | | |
| Drilling wood, metal, plastic, or concrete | X | | | | |
| Painting or using liquid chemicals and epoxies | X | | X1 | | X1 |
| Assembling and disassembling work overhead | X | | X1 | | |
| Installing drywall overhead | X | | | | |
| Cutting metal with partner or chop saw | X | | | | X |
| Using powerwasher | X | | X1 | | X# |
| Using partner saw to cut concrete, block or brick | | | X | | X# |
| Mixing mortar, concrete or grout | X | | | | |
| Pouring, raking or screeding concrete or grout | X | | | | |
| Chipping brick, block, or concrete | X | | | | X# |
| Sanding drywall | X | | X1 | | |
| Performing maintenance on equipment | X | | | | |
| Grinding metals | | | X | | X |
| Grinding concrete | | | X | | X# |
| Mechanical wire brushing | | | X | | X# |
| Welding operations | | | | X | |
| Torch cutting | | X | | | |

X1: These items are required for extreme exposure
(i.e. chemicals or other debris that could get behind safety glasses)

X#: Faceshields are required when flying particles from the tasks have the potential to cause facial injury

This is not a complete list of tasks that require eye and face protection. This is a list of minimum requirements. All tasks that create flying particles require a minimum protection of safety glasses with sideshields.

# APPENDIX C:
# HAND PROTECTION

| Task | Cut Level 4 Resistant Leather Gloves | Rubber Glove Chemical Resistant | Electrical Insulated Gloves (*) | Nitrile Glove |
|---|---|---|---|---|
| Sawing wood, or plastic | X | | | |
| Drilling wood, metal, plastic, or concrete | X | | | |
| Cutting metal with partner or chop saw | X | | | |
| Using partner saw to cut concrete, block or brick | X | | | |
| Mixing mortar, concrete or grout | | X | | |
| Pouring, raking or screeding concrete or grout | | X | | |
| Chipping brick, block, or concrete | X | | | |
| Performing maintenance on equipment | | | | X |
| Grinding metals | X | | | |
| Grinding concrete | X | | | |
| Mechanical wire brushing | X | | | |
| Welding operations | X | | | |
| Torch cutting | X | | | |
| Handling material with sharp edges | X | | | |
| Handling wire cable, sheet metal edges | X | | | |
| Handling chemicals | | X | | |
| Cleaning blood & bodily fluids | | | | X |
| Using equipment with excessive vibration | X | | | |
| Handling hot objects or equipment | X | | | |
| Handling material/equipment in extreme cold weather | X | | | |
| Operating bore machine (**) | | | X | |
| Handling chains sling & rigging equipment | X | | | |
| Camera Work on Sanitary lines | | | | X |

| Type of Glove | |
|---|---|
| Light Duty | Cotton fabric, leather, kevlar |
| Medium Duty | Leather, kevlar |
| Heavy Duty | Kevlar |
| Low Temperature | Insulating gloves |
| Electrical | Use appropriate PPE for high voltage maintenance prescribed through your electrical safety training. |
| Chemical | Choose the appropriate glove reviewing the SDS for the chemical product involved in the task |

| Definitions | |
|---|---|
| Fabric Gloves | Made of cotton or fabric blends are generally used to improve grip when handling slippery objects. They also help insulate hands from mild heat or cold. |
| Cut Resistant Leather Gloves | These gloves are used to guard against injuries from sparks or scraping against rough surfaces. They are also used in combination with insulated liner when working with electricity. |
| Chemical Gloves | These gloves may be made of rubber, neoprene, polyvinyl alcohol or vinyl, etc. The gloves protect hands from corrosives, oils, and solvents. When selecting chemical resistance gloves, be sure to consult the manufacturers' recommendations, especially if the gloved hand will be immersed in the chemical |

(*) Certified Rubber Electrical Gloves
(**) Teammate operator has to have available gloves for use in case of electrical strike. Gloves need to be hanging on HDD within arm's length of the operator.
This is not a complete list of tasks that require hand protection. This is a list of minimum requirements. All tasks that create potential hazard to Teammate's hands require a minimum light duty glove protection.

**General Recommendations:**
Fabric and leather gloves should be cleaned regularly.
Replace gloves if they have cuts, tears, holes or defects.
Use the right glove for the job.

# APPENDIX D:
# ACCIDENT INVESTIGATION PROCEDURES

These Accident Investigation & Reporting Guidelines describe methods and practices for reporting and investigating workplace accidents. They are intended to provide a means to deal with all workplace accidents in a standardized way and demonstrate Team Fishel's compliance with all internal and external reporting requirements. In addition, it's Team Fishel's policy to comply with all workers' compensation laws and regulations.

Because of the variety of accidents investigated and the diversity of our operations, no attempt is made to provide a format for use in all situations. Rather, these guidelines represent a "best practice" investigation procedure that will help to:

- Identify the evidence;
- Identify contributing factors;
- Collect the evidence;
- Photograph the accident scene;
- Sketch the accident scene;
- Document the facts;
- Interview observers;
- Complete and submit a timely and accurate report.

In order to complete the "best practice" procedures, Team Fishel will provide the necessary equipment to complete accurate and timely investigations. Equipment provided include but not limited to:

- Pens/paper
- Measuring device
- Camera
- Various tools
- PPE
- Various marking devices
- Manuals for various equipment

Following are the recommended steps for completing an effective accident investigation.

1. Why do you need to conduct an effective investigation? A thorough investigation will often help:
    - Show concern for our Teammates;
    - Prevent repeat accidents from occurring;
    - Identify root causes of accidents;
    - Address liability issues;
    - Expose errors in processes and/or systems;
    - Identify and eliminate hazards;
    - Improve loss-control management;
    - Identify training or re-training opportunities;
    - Reduce costs in our safety program;
    - Correct unsafe acts and unsafe conditions;
    - Provide information to make recommended changes to our program.

2. Who should conduct the investigation? Designating the investigator or investigating team is a critical step in any investigation process. As with any type of problem-solving, the person with the most interest in the problem is the obvious first choice. The person with a vital interest finds solutions that work. There is also another important consideration in the choice of the investigator. The person must be able to stay objective. The findings must be truthful and relevant, or the problem isn't really solved. Identifying and documenting the facts are critical to completing an effective investigation.

   Following are the "best practice" steps for identifying who should conduct all investigations based on the appropriate level within regards to incident severity.

   A. Minor loss consequences: A Field Supervisor (a Crew Leader, Foreman or Supervisor) is responsible for initiating the investigation process on all accidents. The Field Supervisor shall provide notice to the Safety Coordinator immediately following a workplace accident. The Field Supervisor is responsible for conducting and submitting a timely and accurate report using MDFR.

      - Work-related incidents;
      - Work-related injuries requiring first aid;
      - Job damages or truck accidents with potential or actual loss estimated to be less than $5,000.

      Upon receipt of the accident report, it is the Safety Coordinator's responsibility to review the report and ensure the complete and accurate report is submitted timely through MDFR.

   B. Moderate loss consequences: The Safety Coordinator is responsible for conducting a thorough and timely investigation on all accidents determined to have a moderate loss consequence. The Safety Coordinator shall provide timely notice to the Corporate Safety/HR Director following a workplace accident determined to have a moderate loss consequence. The Safety Coordinator is responsible for conducting and submitting to the Corporate Safety/HR Department a timely and accurate report using MDFR.

      - Near-miss incidents with the potential for serious injury or property damage;
      - Minor OSHA citations;
      - Disabling injuries;
      - Non-disabling injuries requiring medical treatment beyond first aid;
      - Job damage or truck accident with potential or actual loss estimated to be $5,000 to $50,000.

C. Major loss consequences: The Safety Coordinator is responsible for conducting a thorough and timely investigation on all accidents determined to have a major loss consequence. The Safety Coordinator shall provide immediate notice to the Corporate Safety/HR Director following a workplace accident resulting in any potential major loss consequence. The Corporate Safety/HR Director shall direct the accident investigation process, including all documentation for all major loss consequences including:

- A fatality;
- Life threatening injuries;
- Any potential major OSHA citation with possible fines that may exceed $50,000;
- A job damage or truck accident with potential or actual loss estimated to be greater than $50,000.

3. What should be included in an investigation? The designated investigator shall follow the Accident Investigation and Reporting guidelines and be skilled in proper investigation techniques. The focus of the investigation shall be to obtain the facts. It is critical that the investigator be objective and refrain from making any conclusions until all of the facts are obtained and documented. The Teammate conducting the investigations will be based on the incident severity (See number two above). Training Teammates on proper investigative techniques will involve becoming familiar with the Safety Manual and performing LSA's with an Authorized representative of Team Fishel. Training will include but not limited to the use and proper techniques of all equipment provided by Team Fishel as well as the proper documentation (The list of steps to be taken in Appendix E will be covered in training). Upon proper training, the Teammate should be able to perform the following "best practice" steps in conducting an effective investigation:

A. Initial response: Respond to the accident promptly and positively. On seeing or being told of an accident, the Field Supervisor should go to the scene immediately. The first responder shall do the following when faced with a workplace accident:

- Aid the injured;
- Take immediate remedial action to prevent secondary accidents from occurring;
- Secure the scene and protect the evidence;
- Provide notification to all appropriate personnel and authorities;
- Ensure drug and alcohol testing is administered according to the policy, including DOT requirements.

B. Notification and designation of who should investigate: Once the damage or injured party has been properly attended to and the scene has been secured, the Field Supervisor shall immediately provide notification to the Safety Coordinator. The Field Supervisor and Safety Coordinator shall collectively determine the actual or potential loss consequences. The loss consequence assessment is critical in determining who conducts the investigation and files the report. The designated investigator is determined by the value of the actual or potential loss consequences. These are outlined previously in paragraph 2.

C. Collecting the facts: The key to an effective investigation is obtaining the facts. This shall include identifying the *who, what, when, where, how, and why* facts of the accident. While every situation will vary, identifying, collecting and documenting evidence is critical. An effective investigation shall be done immediately and include:

- Identifying the evidence;
- Identifying all possible contributing factors;
- Collecting the evidence;
- Photographing or video taping the accident scene;
- Sketching the accident scene;
- Documenting your observations;
- Interviewing observers.

D. Identify all possible causation factors: It is important not to make any conclusions regarding what caused the accident while conducting the investigation. However, it is important to identify any potential factors that contributed to the accident. In addition to physical evidence, there may be other factors that contributed to the accident. Documenting possible contributing factors is an important part of an effective investigation. These may include:

- Operational errors;
- Violations of rules or procedures;
- Personal factors, such as morale, attitude or knowledge;
- Safety and training records;
- Drug and alcohol testing.

E. Timely and accurate reporting: The accident report briefly summarizes the investigation. The report communicates the critical facts to people who need to act on them and provides important information that helps us to improve Team Fishel's Safety Program. The report serves as a record that has many uses in Team Fishel's loss control program (Please see Accident Investigation & Reporting Instructions). The Safety Director is responsible for reviewing and tracking all incidents, including any necessary corrective actions. As part of any accident investigation, the root cause of the incident is identified and noted on the Incident Report, as well as any corrective action taken. It is the Safety Coordinator's responsibility to review each incident form to ensure all appropriate corrective actions have been taken to reduce the risk of similar incidents from happening again. This includes all appropriate and necessary disciplinary actions taken against all Teammates who may have been involved in any unsafe act that directly led to the incident.

## MDFR INCIDENT CLAIM REPORTING

The key to satisfactory claim settlements is the proper reporting of information to our insurance companies in a timely manner and in a form that provides all the necessary information for the insurance company to begin its investigations.

The following (4) are to be used for reporting claims.

1. Driver's Accident Report: to be used to report all auto and truck accidents, as well as any damage to other property caused by a Team Fishel owned or leased licensed vehicle.

2. Job Damage Report: to be used to report all property damage and bodily injury to persons not employed by Team Fishel.

3. Teammate Accident Report: to be used to report all job related teammate injuries.

4. Equipment Damage or Loss Report: to be used to report theft, vandalism, and miscellaneous damage to Team Fishel owned or leased, licensed or non-licensed equipment.

# APPENDIX E:
# ACCIDENT REPORTING INSTRUCTIONS

1. In the event of a job damage, vehicle accident or worker's compensation claim, a Foreman or Supervisor shall complete the report in detail and submit through MDFR within 24 hours of the incident.

2. When a serious accident occurs involving bodily injury or major loss consequence, the Area Manager, Safety Coordinator and the Safety/HR Team must be notified immediately.

3. The Safety Coordinator or Supervisor shall promptly determine and test each Teammate for drugs and alcohol in accordance with Team Fishel's policy, if the Teammate's performance contributed to the accident or cannot be completely discounted as a contributing factor to the accident. This includes all job damages estimated to have a value of or a potential to exceed $5,000, all motor vehicle accidents and/or worker's compensation claims (except for insect bites and poison ivy/oak claims).

4. A proper drug test (DOT or Non-DOT) must be performed immediately. If the test is not done within 32 hours after the accident, a written statement explaining why it was not done must be submitted. Alcohol tests must also be performed immediately. If the test is not done within the first two hours after the accident, a written statement explaining why it was not done must be submitted. If the alcohol is not completed within eight hours of the accident, a second statement of explanation must be submitted.

5. The Safety Coordinator must review the report and attach any related documentation or evidence, including but not limited to invoices, pictures, witness statements, copies of locate tickets, copies of chain of custody forms (COCs), alcohol test results, and police reports (if required), equipment used, environmental factors, temperature, noise, etc.

    - Witness interviews and statements must be collected when applicable. In order to do this, Teammate(s) must locate witnesses, ensure an unbiased testimony, obtain appropriate interviewing locations, and have the proper training to ensure an accurate investigation. Upon completion of the initial interview, the Teammate should follow up with the witness if further information is needed. Teammates should be sure to take down any imperative information on the witness including a signature to their testimony.

6. All reports must be completed timely and accurately. Reports and all required paperwork must be submitted to and **received by the Corporate Safety/HR Department** as soon as possible, but no later than **5 calendar days after the incident.** The Area Manager is responsible for reviewing all incidents and ensuring corrective actions are taken accordingly. The Area Manager is notified of an incident via automated email notice that is generated each time a new incident is uploaded into the ECMS. A follow up email is generated weekly from the ECMS to the Area Manager if any outstanding documents are required to complete the report. This includes the documentation of any required disciplinary or corrective actions.

7. Any incidents that should be reported to OSHA shall be conducted so within eight hours of the accident and within 24 hours to the owner/client.

# APPENDIX F:
# INJURY/ILLNESS RECORD KEEPING

1.0 Recordable Incidents:

1. Injury/illness must be the result of a work-related event

2. Injury/illness must result in:

   - death
   - loss of consciousness
   - days away from work
   - restricted work activity or job transfer
   - medical treatment beyond first aid

3. Needlestick injury or cut

   3.1 Team Fishel shall record all work related needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by 29 CFR 1910.1030).

   3.2 Additional information related to Bloodborne Pathogens can be found in Chapter 11 of Team Fishel Safety Manual.

4. Any case requiring a Teammate to be medically removed

5. Tuberculosis infection

6. An incident where a Teammate's hearing test reveals a Standard Threshold Shift (STS) in hearing in one or both ears and where the total Hearing is 25 decibels or more above audiometric zero in the same ear as the STS.

2.0 Classifying Injuries/Illness

1. Injury: cut, puncture, laceration, fracture, bruise, chipped tooth, amputation, insect bite, electrocution, or any type of burn

2. Skin disorder: eczema, rash or inflammation of the skin

3. Respiratory Condition: silicosis, asbestosis, tuberculosis and occupational asthma

4. Poisoning: lead, mercury, cadmium, carbon monoxide or insect sprays

5. Hearing loss: a change in hearing threshold, relative to baseline, of an average of 10 decibels or more, or a total hearing loss of 25 decibels or more.

6. All other illnesses: heat stroke/exhaustion, frostbite, AIDS, HIV, Hepatitis B or C

3.0 Days Away vs. Restricted Duty

**Days Away:** Based on the actual number of calendar days (not work-days) a Teammate is away from work as a result of a work-related injury/illness.

**Restricted Duty:** Based on the desire of the employer or health care professional keeping a Teammate from doing the routine function of his or her job, or from working a full work-day that the Teammate would have been scheduled to work prior to the injury.

4.0 Proper Recording

1. First aid injuries are not recordable

2. Only record the most serious classification of the injury

3. Call OSHA when:
   - Any Teammates are admitted to the hospital
   - an incident results in a fatality
   - incident results in an amputation
   - incident results in loss of an eye

4. Incidents should be recorded on the OSHA 300 Log within seven calendar days.

5. Upon review, a Team Fishel representative will post the OSHA 300A form in each office, available to all Teammates from February 1 through April 30 of the following year. Posting this document means proper examination was done on the document to ensure a correct and completed OSHA 300A form.

6. The OSHA 300 Log and other forms of record keeping must be maintained for five years following the end of the calendar year that the records covered.

5.0 Record Keeping:

1. The Safety Director is responsible for retention of all formal safety-related recordkeeping at Team Fishel. All official records are retained at the corporate office.

2. Team Fishel utilizes an Enterprise Content Management System (“ECMS”), as well as our Human Resources Information System (“HRIS”) for most record keeping and data storage involving relevant safety documentation and information. Records are maintained for an indefinite period of time and are considered active for 10 years.

3. Records that are kept include the following:

   - Incident Reports – Teammate Injury Reports, Motor Vehicle Accident Reports, General Liability and Property Damage Reports. These documents are stored in the ECMS, including all supporting documents (i.e. witness statements, disciplinary action forms, locate tickets, photographs, police reports, invoices, etc.).

- OSHA Logs – OSHA logs are created by the Corporate Workers Compensation Administrator. They are reviewed and signed by the President and CEO and distributed to the Office Manager of each local office where they are posted annually as required by law.
- Life Saving Assessment Reports – These reports are scanned and stored in the ECMS.
- Training Documentation – The formal sign-in sheets for any training event are maintained at the local office, including a copy of the curriculum or content covered, as well as documentation of Weekly Tailgate Meetings. All training events are documented in the HRIS.
- Disciplinary Action – All disciplinary actions involving a safety incident, including the violation of a safety policy, are documented on the Teammate Termination/Counseling Form available on Team Fishel's intranet site. The disciplinary action is entered by the Office Manager into the HRIS and the form is forwarded to the corporate office where it is placed in the Teammate's personnel file.

6.0 Injury/Trend Analysis:

1. It is the responsibility of the Safety Director to review records and identify trends for the entire company. The Safety Coordinator is responsible for understanding the company trends and identifying trends within their assigned areas. Corporate members and Safety Coordinators will identify trends within respective areas and draw conclusions when applicable.

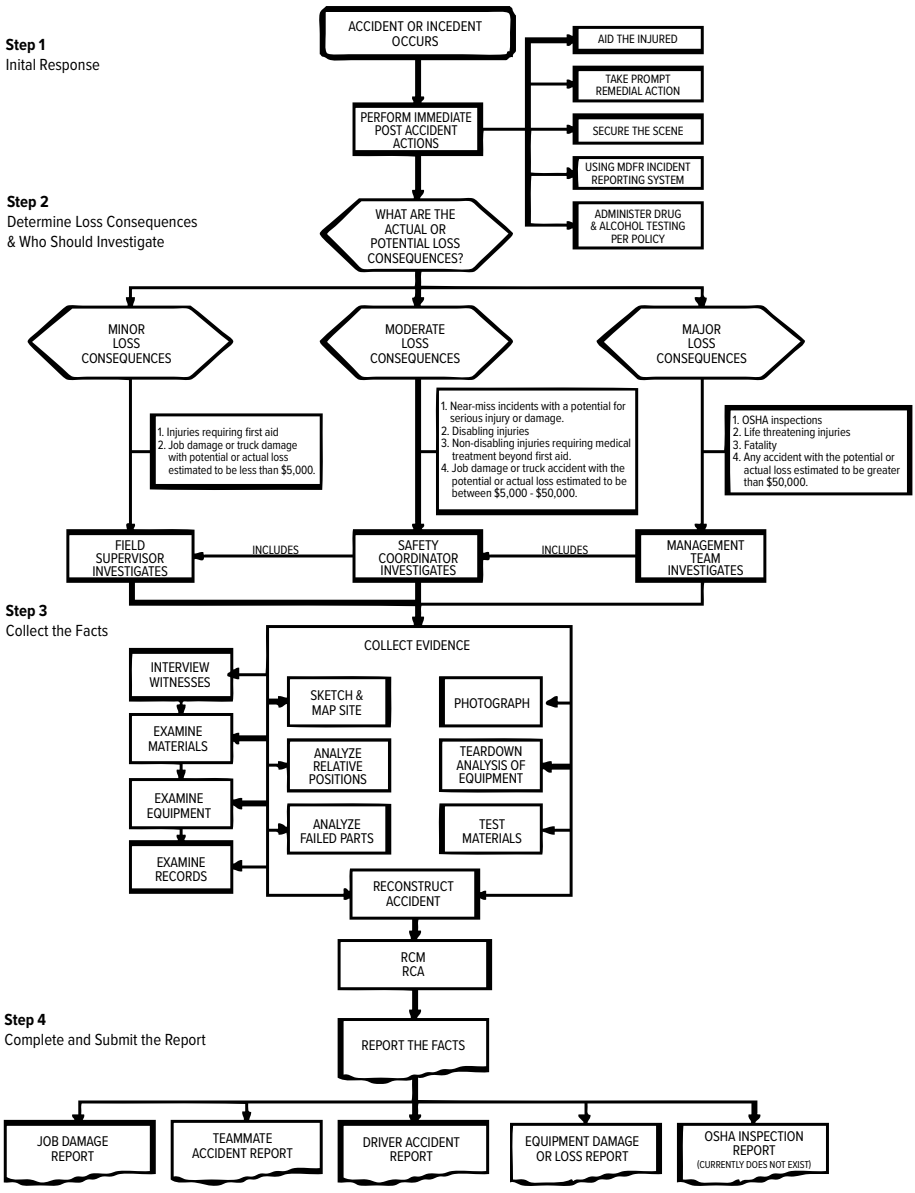
2. The analysis is based on information taken from the injury reports, vehicle accidents, and job damage claims, and may also include a review of the findings from Life Saving Assessments.

3. Safety Coordinators participate in monthly safety conference calls facilitated by the Safety Director or Safety Manager. The purpose for this call is to review all recent large claims, as well as discuss any concerning trends that may be developing. Time is allocated to discuss potential solutions to avoid any re-occurring incidents. The call is documented with an agenda that is emailed out to all participants prior to the call. Notes are distributed following the call to capture key topics and any agreed-upon action items. "All Hands" Safety Meetings are held monthly at all established office locations. The meeting is facilitated by the Area Manager and Safety Coordinator. It is the responsibility of the Safety Coordinator to review any trends identified corporate-wide and at the local level. The Safety Coordinator documents this meeting by using the Training Class Sign-in Sheet. The completed sign-in sheet is provided to the Office Manager, who ensures the training event is entered correctly into the HRIS. The sign-in sheet, along with a copy of the materials, is retained in the local office.

4. It is the responsibility of Safety Coordinators, with support of the Area Managers, to track and implement corrective action upon review of the analysis.

5. The Safety Coordinator is responsible for maintaining documentation including trend analysis and corrective actions for at least three years.

# APPENDIX G:
# ACCIDENT INVESTIGATION & REPORTING GUIDELINES



Rule 201 . . . . . Disciplinary Action Program
Rule 202 . . . . . First Aid
Rule 203 . . . . . Back Safety — Handling Materials & Equipment
Rule 204 . . . . . Outdoor Hazards
Rule 205 . . . . . Care of Facilities & Equipment
Rule 206 . . . . . Job Site Protection
Rule 207 . . . . . Compressed Air Safety
Rule 208 . . . . . Underground Operations
Rule 209 . . . . . Blowing Conduits
Rule 210 . . . . . Pulling Cable
Rule 211 . . . . . Slings (Wire-Rope, Chain & Synthetic)
Rule 212 . . . . . Ladders
Rule 213 . . . . . Tree Trimming & Clearing Right-of-Way
Rule 214 . . . . . Shop Safety
Rule 215 . . . . . Compressed Gas Cylinders
Rule 216 . . . . . Welding
Rule 217 . . . . . Office Safety
Rule 218 . . . . . General Waste Management
Appendix A . . . . . Discipline Matrix
Appendix B . . . . . Heat Illness Prevention Program
Appendix B-1 . . . . . Heat Related Illnesses and First Aid
Appendix B-2 . . . . . Hydration Guidelines
Appendix B-3 . . . . . Heat Stress Index
Appendix C . . . . . Team Fishel Lifting Policy

## Rule 201 . . . . . Disciplinary Action Program

1.0 The purpose of the Disciplinary Action Program is to control the work environment so Teammates are protected, accidents are prevented and Teammates know what is expected of them. It also provides Teammates with an opportunity to correct their behavior. Compliance with Team Fishel safety rules and procedures is a condition of employment.
Any violation of the rules and guidelines outlined in this Safety Manual will result in a written disciplinary form and could lead to disciplinary action and/or dismissal.

2.0 When a violation of a Team Fishel safety rule occurs, Team Fishel will look at the seriousness of the offense and corrective action will be determined by the disciplinary matrix and management. The actions specified within this Safety Manual do not change the "employment-at-will" relationship stated in the Teammate Policy Manual.

3.0 Any Teammate involved in a chargeable or preventable job damage, truck accident, Teammate injury, or who commits a safety violation, will be disciplined. Based upon the seriousness of the incident, additional disciplinary action, up to and including termination, will be determined by the disciplinary matrix and management.

4.0 Any Teammate who violates Team Fishel's Anti-Drug and Alcohol Prevention Policy will be subject to appropriate disciplinary action, up to and including termination of employment.

5.0 Other serious safety violations include not using personal protective equipment (PPE), driving or riding in a motor vehicle without a seat belt, working in an unprotected excavation, or entering an unsafe confined space. If a Teammate violates one or more of these violations, he/she will be subject to the following minimum disciplinary action(s):

6.0 See Disciplinary Matrix Appendix A.

## Rule 202 . . . . . First Aid

1.0 First aid is the immediate, temporary care given to an injured or suddenly ill person until Competent medical personnel, if required, arrives and takes over.

2.0 In the absence of a medical facility or a qualified medical assistance, appropriate first aid treatment shall be rendered by a First Aid-trained Teammate. This treatment must be reported to the Safety Coordinator.

- At least one Teammate trained in First Aid response (Red Cross or equivalent) shall be available on each Fishel job site where immediate response (3-4 minutes) is not available.
- Any First Aid rendered by a Teammate shall be reported to the Safety Coordinator

3.0 Good Samaritan laws will generally protect a Teammate from liability as long as he/she:

3.1 acts in good faith,

3.2 is neither reckless or negligent,

3.3 acts as a prudent person would, and

3.4 only provides care that is within the scope of his/her training.

4.0 Teammates should always know the location of the closest hospital/medical facility to the job site. A Job Hazard Analysis shall be held to inform all Teammates of the location of the closest medical facilities and to alert other Teammates of who the trained First-Aid responder on that site is.

5.0 When a medical emergency occurs, a Supervisor, Foreman or Crew Leader who is equipped with a radio and/or a mobile phone should be notified and 911 should be called immediately. In areas where 911 is not active the Safety Coordinator shall publish a listing of appropriate treatment facilities in the area and make such list available to Supervisors, Foremen, Crew Leaders and other Teammates deemed necessary to the treatment process. A copy of the list should be placed in each vehicle and be updated on a frequent basis. A copy of the list shall also be posted in a conspicuous location at each office where 911 services are not available.

6.0 If the injury is not serious but requires more than First Aid treatment, Teammates should utilize our 3rd party medical services such as Amphibious/Onsite/Work Strategies. As a last resort the Teammate may be transported to a medical facility by another Teammate in a company vehicle.

7.0 Emergency Medical Services should be called if the victim:

- is or becomes unconscious;
- has chest pain or pressure lasting more than five minutes;
- has difficulty breathing;
- is bleeding severely;
- has pain or pressure in the abdomen;
- is passing/vomiting blood;
- has slurred speech, severe headache or seizures;
- has a head, neck or back injury;
- has possible broken bones; or
- has been poisoned.

8.0 If the victim is bleeding heavily the following steps should be taken:

8.1 Direct pressure should be applied to the wound, using a clean cloth, clothing or a hand if necessary. The gloves in the first aid kit must be used.

8.2 The wounded area should be elevated above heart level.

8.3 The caregiver, using gloves in the first aid kit, should apply pressure to the corresponding pressure point. Pressure points are located on the inside of the upper arms, and in the crease of the groin area.

9.0 All instances of exposures and/or contact with bodily fluids must be reported to the Safety Coordinator.

10.0 First aid kits should be readily accessible and, unless kept indoors, stored in weatherproof containers.

11.0 A ANSI/SEA Z308.1-2021 compliant first aid kit and within date of compliance must be on every Team Fishel truck. First aid kits kept on Team Fishel trucks shall be stored in the same place. The storage location shall be marked with both a First Aid Kit sticker and Fire Extinguisher sticker to make its storage location readily identifiable.

12.0 Supplies in first aid kits should be replaced as needed.

12.1 In offices first aid kits shall be inspected by the Safety Coordinator prior to the initial distribution and monthly thereafter.

12.2 In the field, first aid kits should be inspected by the Safety Coordinator before initial distribution and by the operator weekly thereafter.

12.3 All items in the first aid kit shall be individually wrapped and sealed. Expended and out-of-date items shall be replaced as part of the routine weekly inspection process.

13.0 Victims who are seriously injured or ill may often go into shock. To treat shock, a caregiver should:

- 13.1 lay the victim down,
- 13.2 lightly cover them up,
- 13.3 raise their feet above their heart level, and
- 13.4 not give the victim anything to drink.

14.0 If the victim has broken bones, he/she should never be moved unless absolutely necessary. The victim should be instructed not to move and to wait for medical help to arrive.

15.0 If the victim suffers from heat stress (Section 2, Appendix C, page 63) the caregiver should:

- 15.1 move the victim to shade or provide shade,
- 15.2 loosen or remove the victim's clothing and boots,
- 15.3 cool the victim as fast as possible. Use cold water if available. If not available, the caregiver should fan the victim,
- 15.4 elevate the victim's legs and massage limbs,
- 15.5 have the victim drink water, unless he/she is unconscious, then
- 15.6 wait for medical help to arrive.

16.0 Teammates who are exposed to injurious or corrosive materials and liquids shall have access to suitable eye wash facilities for quick rinsing or drenching within the work area. Field Teammates shall have eye wash solution in the first aid kit and shop Teammates shall have access to an eye wash station within a reasonable distance to the work area.

17.0 Team Fishel will provide training in First Aid (Red Cross or equivalent) and CPR for Teammates assigned as first aid responders.

18.0 Teammates assigned as first aid responders will be included in the Bloodborne Pathogens Exposure Control Program (see Section 11).

## Rule 203. . . . . Back Safety – Handling Materials and Equipment

1.0 Teammates should not attempt to lift loads beyond their capabilities. When lifting heavy loads they should be kept as close to the body as possible. Keep the back straight and use the leg muscles to raise the load (refer to Appendix D of this section).

2.0 When two or more Teammates are lifting or pulling together, one Teammate should give signals for the group.

3.0 Heavy objects should be lowered in place, not dropped. Periodic evaluation will be done by Supervisors or Safety Coordinators to ensure configuration's and Teammates work techniques are proper to prevent future injuries. In the event an error in lifting technique is found, Supervisors or Safety Coordinators must evaluate the error and take corrective action.

4.0 When moving heavy equipment on rollers, such as transformers or machinery, Teammates should exercise care and use rollers that are long enough to extend well past the skids.

5.0 Hydraulic booms, forklifts, hoists, blocks and tackles, jacks, bars, dollies, carts, etc... will be provided for the Teammates and should be used for objects too heavy to lift by hand. Methods of use will be enforced by supervision to ensure the proper lifting technique is being used.

6.0 When lifting heavy equipment, synthetic fiber or wire-rope slings of suitable strength should be used and be certified for lifting with a legible WLL tag . The slings should be placed to avoid cutting them on sharp edges. Worn slings must be replaced immediately.

7.0 Synthetic slings must be used around energized equipment where the use of wire-rope slings would cause a hazard.

8.0 Tag lines or equivalent controlling device shall always be used by Teammates when helping to control or direct heavy material being lifted by booms, backhoes, etc.

9.0 Before lifting an object, size up the load. There should be an assessment made associated with size, bulk, and weight of that object regardless of the method used (i.e. motorized vehicle, team lift or any other method) to move the object and the clarity of the path before you. When lifting equipment is unable to perform the work, Teammates must use a team lift to properly move the object.

10.0 Work-related musculoskeletal disorders occur from continual wear and tear on the muscles joints, bones, and nerves. Generally, musculoskeletal disorders in construction workers affect the hand, wrist, shoulders, neck, upper and lower back, and the hips and knees. Different types of musculoskeletal disorders are often associated with different types of construction work.

11.0 There are activities, actions, conditions or exposures that can increase the chance or risk of developing a work-related musculoskeletal disorder. There are some differences in the factors associated with musculoskeletal disorders of the hands, wrist, neck and shoulder also known as upper extremities, the back, and the hips, knees, ankles and feet or the lower extremities.

Risk factors for musculoskeletal disorders of the hands, wrist, neck and shoulder may include:

- Force or muscle effort
- Awkward body postures
- Repetitive work
- Contact pressure
- Vibration
- Temperature

12.0 Pushing, pulling, tugging and sliding objects require muscle force or effort. They put a strain on your lower back. They also stress the muscles, tendons and joints of shoulders, arms, upper back and legs. The amount of force these movements require depends upon:

- The amount of force used to pull or push the object.
- Pushing uses less force and allows use of upper body weight.
- Body posture while pushing or pulling.
- Awkward postures force the body to exert more force to move the object.
- Condition of the walking surface.
- High friction between the object and the surface, for example moving an object over gravel requires more force to move the object. Slippery surfaces reduce the amount of traction, leading to the possibility of slips and falls.
- Slope of the work surface. The greater the slope, the harder it is to push the item.
- Weight of the object. The greater the weight, the more stress on the shoulder, back, and legs.
- Position of the object. Pushing or pulling an object above the shoulder or below the waist is more stressful.

13.0 Good housekeeping practices are important to reducing musculoskeletal disorders

- Mud, wet, oily surfaces and poor housekeeping are serious slip, trip and fall hazards.

- Materials, wires, power cords and tools on the ground are common causes of slips and trips.
- Slips and trips can cause back injuries.
- Reaching over, under or around an object or barrier increases the stresses on the lower back.

14.0 Lifting Techniques: Lifting involves many different muscle groups. Lifting from the ground to waist level uses muscles of the leg and thigh. Lifting between the waist and the shoulder, uses mostly back muscles. Lifting above shoulder height uses muscles of the upper back and shoulder.

Most of us have been taught that the proper lift technique is the squat lift with the knees bent and back straight. A squat lift puts stress on the lower legs, knees and thighs. It also requires a lot of energy.

The proper lift depends more on the size and shape of the object you are lifting than of any set technique. If an object is too big or bulky you may not be able to hold it against your body as you lift. When you hold an object away from your body, the forces on your spine increases. This happens no matter what lift technique you use.

It is important to be careful about the way you lift. No matter how you lift, if the object is too heavy, back injury may occur. The best way to prevent back problems is to eliminate or reduce the need for heavy lifting.

15.0 Management commitment to control and reduce work-related musculoskeletal disorders starts at the top and must run through every level in the organization. The commitment includes assigning program responsibilities and the authority to those that run the program, providing adequate financial, personnel and material resources, analysis of the worksite activities and infrastructure to identify risk factors and hazards, information dissemination, training and medical management.

16.0 Job Hazard Analysis helps find what risk factors or hazards exist on the job site. Careful evaluation of the job site identifies risk factors and hazards; use of checklists help record your observations for further examination. Several checklists for recording risk factor and hazards are included in this manual. Once the risk factors, hazards and injuries are identified and recorded, the safety and health committee, in collaboration with management, contractors and workers, have the facts to develop solutions, e.g., improve site housekeeping through the alteration of material delivery schedule, use self-raising platforms or buddy system for lifting, etc. Some general solutions are listed below.

17.0 Manual handling: Job Hazard Analysis to minimize handling, improved housekeeping to prevent trips and falls, increased use of carts/dollies/hoists/mechanical handling devices, ladder hoists/gin poles/daisy chains/cranes for moving materials on/off roofs, chain falls, motorized buggies, carrying handles, extension handles for carrying large or awkward materials (like drywall), Break up loads (cement in 47 lb bags), Shoulder pads for carrying on shoulders, Ergonomics training, Pre-job stretching program, weight labeling of materials, Getting help (two-person lifts),

18.0 In accordance with 29 CFR part 1904, injuries must be reported and recorded.

## Rule 204. . . . . Outdoor Hazards

1.0 Bees, wasps, hornets

1.1 Teammates must be aware of their surroundings.

1.2 Teammates should check long grass for yellow jackets before mowing, especially in late summer when they are most aggressive.

1.3 If a Teammate knows he/she is allergic to bee stings, he/should keep a bee sting kit available and notify other teammates of his/her condition. Call 911 for assistance.

2.0 Mosquitoes

2.1 Teammates should wear clothing with tight weaves, which is more difficult for mosquitoes to penetrate.

2.2 Teammates should use mosquito repellent appropriate for expected exposure.

3.0 Snakes

3.1 Teammates should be aware of their surroundings and pay attention to where they put their hands and feet.

3.2 If Teammates are walking through or working in a snake-infested area, high boots or leggings should be worn.

3.3 If a Teammate sees a snake, he/she should step away slowly.

3.4 Teammates should be able to identify dangerous snakes. Examples include looking for a triangular head (rattlesnakes, copperheads, and cottonmouths) or red bands touching yellow to whitish bands (coral snakes).

3.5 Teammates should never corner any type of snake, and give snakes plenty of room to escape.

4.0 Ticks

4.1 Ticks are most prevalent in the spring and early summer.

4.2 Ticks are carriers of Lyme disease and Rocky Mountain spotted fever. Although a majority of people with Lyme disease develop a “bulls-eye” rash, 20-40% of persons who have Lyme disease do not have a rash.

4.3 To decrease the probability of tick bites, Teammates should:

- Wear light colored clothing (to more easily see ticks).
- Wear long sleeve shirts.
- Wear long pants, preferably tucked into socks. If working under trees, Teammates should wear helmets.
- Wear work boots that cover the entire foot.
- Avoid brush and leaf debris.
- Check themselves regularly for ticks, especially around the head, waistline, groin, knees, armpits and ears.
- Apply tick repellent if necessary before going into a tick-infested area.

4.4 If bitten by a tick Teammates should:

- Record the date and contact a physician for medical advice.
- Remove it carefully.
- Shield fingers with a piece of folded paper or use tweezers. The tick may carry the disease organisms of Rocky Mountain spotted fever that can penetrate even microscopic breaks in the skin.
- Grasp the body of the tick firmly with paper or tweezers and gently pull away from the point of attachment without twisting or jerking. It may be several minutes before the tick releases its hold.
- Wash the bite area with soap and water and apply an antiseptic such as alcohol.

- Wash hands well with soap and water after removing the tick.

5.0 Scorpions

5.1 Teammates should be aware of their surroundings, and be careful where they put their hands and feet.

5.2 If working in an area where scorpions are prevalent, Teammates should check their shoes/boots before putting them on.

5.3 If walking through a scorpion-infested area, Teammates should wear high boots or leggings.

5.4 If a Teammate is stung by a scorpion, 911 should be called immediately.

5.5 Scorpion stings are rarely fatal. The Teammate should not exert himself/herself and wait until help arrives.

6.0 Poison ivy, oak and sumac

6.1 Teammates should be able to identify poison ivy, oak and sumac.

6.2 Teammates should wear skin barrier cream before going into areas that may have poison ivy, oak and sumac.

**Rule 205 .....Care of Facilities and Equipment**

1.0 Team Fishel spends between $3 million and $6 million dollars per year on equipment. Teammates are expected to take good care of this equipment.

2.0 Good housekeeping should be maintained in and around office areas, shops, job sites and equipment. Loose tools, debris and clutter can cause accidents.

3.0 Teammates should never alter or remove safety devices.

4.0 Teammates should always check fluid levels in equipment and vehicles before operating them.

5.0 Both a pre-trip and post trip inspections must be performed on all trucks, trailers, etc by the Teammate operating the equipment. Any problems with trucks or equipment should be documented on the DVIR and reported to the shop immediately.

5.1 Equipment inspection forms must be completed by the operator prior to operating off road equipment. Any problems with the equipment should be documented on the equipment inspection form and reported to the shop immediately.

6.0 Tools and equipment should be kept neat, clean and stored properly.

7.0 Hand and power tools should be inspected regularly and kept in good condition. Unsafe tools should never be used.

8.0 Unsafe tools should be tagged and reported to the shop Foreman or Supervisor immediately.

9.0 Teammates should eliminate or protect against the causes of tripping or slipping hazards, especially in walkway areas. All oil, grease, paint or liquid spills must be cleaned up immediately.

10.0 Electrical panel rooms must be kept clean and free of debris, and should never be used as storage areas.

**Rule 206 ..... Job Site Protection**

1.0 Traffic control should be incorporated into the overall construction plan. Making Teammates aware of potential hazards in a work zone can help reduce the number of accidents.

2.0 The work zone and all traffic control devices shall be inspected at the beginning of the workday, after lunch, at the end of the day, and at nighttime if conditions warrant.

- 2.1 Signs must be moved, covered, or changed to indicate that the construction area has changed.

3.0 Each state has its own Manual on Uniform Traffic Control Devices (MUTCD: that states the requirements for setting up a traffic control zone.

- 3.1 It will show set-ups for different circumstances.
- 3.2 Each city or county may also have additional requirements.
- 3.3 A city or county official should inspect the traffic control zone before the start of the job if required.
- 3.4 If applicable, a certified professional Traffic Controller (paid by the barricade rental company) should set up and take down the barricades in accordance with an approved Traffic Control Plan (TCP).

4.0 Generally, motorists will only reduce their speed by 10 MPH through a work zone.

- 4.1 Teammates should keep this in mind when changing traffic flow.
- 4.2 The path through the work zone should be clearly marked so motorists aren't confused or distracted.
- 4.3 Red or orange cones to channel traffic should be at least 18 inches high unless state laws require a different size.
- 4.4 Signs should be at least 3 feet high by 3 feet wide.
- 4.5 Teammates should consider using an escort truck through the traffic zone.

5.0 While traffic control devices used at night should be reflective or lighted, crew members must be careful how reflective signs, reflective tape and warning lights are used.

- 5.1 A motorist can become confused at night when coming upon a series of glowing or reflective objects.
- 5.2 A designated Teammate should drive the zone at night to make sure the traffic path is not confusing.

6.0 In addition to wearing the normally required Personal Protective Equipment (hard hat, eye protection, hearing protection, and safety shoes/boots), all Teammates must wear reflective safety vests. Company policy and OSHA regulations require the wearing of safety vests whenever Teammates are working in or near motor vehicle traffic.

7.0 If the job site requires a flagger, he/she should be properly trained and equipped according to the flagger requirements in each state. The designated flagger must understand that he/she is the most important Teammate at any job site that is in conflict with traffic.

- 7.1 All flaggers shall perform their duties in compliance with Fishel rules, customer requirements and laws for the state in which they are working.
- 7.2 Flaggers must be current with their Team Fishel flagger awareness training.

8.0 Teammates should never turn their backs to oncoming traffic! This includes when they are flagging, setting up a traffic zone or tearing down a traffic zone.

9.0 Whenever a Team Fishel truck is parked at the side of the road and it is equipped with yellow warning flashers/beacons, the flashers/beacons should always be in operation. These lights

should be installed on trucks in locations that can be seen from the front and rear of the truck.

9.1 Vehicle and equipment left unattended in the construction zone, day or night or parked adjacent to a highway in normal use, shall be equipped with and use appropriate lights, reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of the equipment.

10.0 Whenever the job requires an arrow board, an arrow board should be part of the traffic control equipment.

10.1 Once the traffic zone has been torn down back to the arrow board, it should be towed behind the truck while crew members pick up the rest of the signs, barricades or cones.

10.2 The arrow board should never be turned off and folded to the transport position until the entire traffic zone is taken down.

11.0 If a police officer and cruiser are assigned to the job site, the officer should follow behind Teammates when they are picking up signs, barricades or cones.

12.0 If no arrow board or police officer is available, a Teammate in a Team Fishel truck should follow behind and protect the crew members. The trailing truck should have 4-way flashers and yellow flashing beacons in operation during this procedure.

13.0 If a Teammate has no other truck to assist him/her, he/she should use his/her truck as protection.

13.1 Teammates should never load signs and barricades into the traffic side or the rear of the truck.

13.2 Teammates should always do the loading on the protected side.

14.0 Whenever a job site requires street plates to cover an open trench or pit, they should be secured in the following manner:

14.1 by recessing them into the asphalt/concrete; or

14.2 secured by the use of cold patch; or

14.3 secured with asphalt pins; or

14.4 secured by using any combination of the above methods.

UNDER NO CIRCUMSTANCES SHOULD STREET PLATES BE LEFT LYING ABOVE A STREET CUT WITHOUT BEING SECURED IN THE MANNER(S) LISTED ABOVE!

## Rule 207. . . . . Compressed Air Safety

1.0 When using compressed air for any purpose, eye protection, ear protection, and hand protection is required

2.0 Teammates should make sure all hose connections have locking safety clips and whips installed before the air is turned on. Pieces of wire should never be used as a substitute for safety clips!

3.0 Teammates should never by-pass any safety device. Teammates should never tape or tie the trigger switch in the open or “on” position on any air tool.

4.0 Air tools should be lubricated daily as needed.

5.0 Air tools that are missing bolts or are not in good working order should not be used.

6.0 Compressed air should never be used to clear away dirt or debris (dry sweeping) from any surface.

7.0 Exceeding the manufacturer’s safe operating pressures for hoses, pipes, valves, filters and other fittings will not be permitted.

8.0 The use of air hoses for hoisting or lowering tools will not be permitted.

9.0 All hoses with an inside diameter of greater than one-half inch must have a safety device at the source of the air supply or branch to reduce pressure in case of hose failure.

10.0 Compressor equipment must be inspected daily before use. If the compressor is not on the truck hitch, the tires must be chocked.

11.0 Any intentional misuse of compressor equipment can cause serious injury.

## Rule 208 . . . . . Underground Operations

1.0 General

- 1.1 Whenever a dangerous condition is found, such as a broken manhole or vault cover, unlocked enclosures, etc., necessary steps must be taken to protect Teammates and the public.
- 1.2 It is the duty of each Teammate to inspect all protective devices and make sure they are in satisfactory condition before using them.
- 1.3 The importance of keeping the general work area clean cannot be over- emphasized. Care should be taken that all tools and equipment are placed in an orderly manner.

2.0 Underground Vaults and Manholes (see also, Team Fishel Safety Policy Section 9 Confined Space Entry)

- 2.1 Trucks and heavy equipment should be parked on the downwind side of open manholes and vaults to prevent exhaust fumes from entering the work area. The same care shall apply to all types of gasoline or internal combustion engines such as generators, air compressors, blowers, welders, etc.
- 2.2 Appropriate traffic control devices shall be placed at all open manholes located on public right-of-way or where there is exposure to vehicle or pedestrian traffic of any kind. The warning devices shall be placed in accordance with the local laws, codes, specifications, statutes, guidelines or regulations as applicable, to give people or vehicles ample time to avoid the obstruction.
- 2.3 When a tool cart is used, it should be placed on the side of the manhole away from traffic so that the Teammates will be able to face the manhole and oncoming traffic and see approaching danger. Tool carts should never block sidewalks, driveways or entrances to homes or businesses.
- 2.4 Before an underground structure is opened, all unauthorized persons are required to leave the work area.
- 2.5 Open manholes and vaults must be barricaded or guarded, permit required open manholes and vaults must also have an attendant.
- 2.6 After Teammates have entered a sidewalk entrance vault, the screen grate should be closed or barricades put in place.
- 2.7 A flame should never be used to melt ice around a manhole cover. There is always danger of igniting explosive gas, which may be in the manhole.
- 2.8 When removing and replacing manhole covers, adequate help should be obtained. Proper tools shall be used to lift manhole or vault covers. Teammates must be careful of the position of their hands and feet during the operation.
- 2.9 When pumping out vaults or manholes containing energized equipment, all energized equipment must be mitigated and discussed during the Job Hazard Analysis prior to

performing the task. A non conductive hose must be used and caution taken in lowering the hose into the vault or manhole. When a submersible hydraulic pump is used, the same precautions should be observed.

2.10 Before entering any manhole or vault, the integrity of the atmosphere must be checked with a calibrated oxygen/combustible gas analyzer.

2.11 See Section 9 – Confined Space Entry – for further information.

2.12 Continuous forced ventilation must be readily available and onsite for use when atmosphere deems necessary, continued monitoring shall be provided to Teammates working in manholes or unvented vaults.

2.13 At least one qualified Teammate is required at the entrance of manholes or vaults to maintain communication with, or to provide assistance to, Teammates working below ground.

2.14 Before starting work, a general inspection should be made to determine if there are any dangerous conditions such as burned or cut cables, loose or defective ladders, etc.

2.15 When work in any manhole or vault brings the Teammate in proximity to energized equipment or lines, rubber blankets or other suitable insulating devices must be installed to prevent accidental contact.

2.16 Equipment used to lower materials or tools into manholes or vaults must be capable of supporting the weight to be lowered and should be checked for defects before use.

2.17 Before hot solder or other hot compounds are lowered into the opening of a manhole or vault, Teammates working below must be clear of the area directly under the opening.

2.18 Water should never be pumped into an un-barricaded lane of the street where it can affect vehicular traffic. Water should be pumped into the approved location such as a gutter, a drainage ditch, field, storm sewer or vacuum truck .

## Rule 209 .....Blowing Conduits

1.0 Teammates should ensure the right blower and birdie for the conduit size is being used.

2.0 All plugs, knockouts, or other objects that might be plugging the end of the conduit being worked on should be removed.

3.0 Teammates should ensure the conduit they intend to blow is a complete run and not a piece that has been stubbed off for future use.

4.0 The inside of the conduit should be clean in order to ensure the blower has a tight fit.

5.0 The blower should have the correct attachments and fit properly into the conduit. There are different blowers for different sizes of conduit.

6.0 The rubber gasket that fits inside the conduit should be checked. If the gasket is bad, there will not be a good seal and air pressure will be lost.

7.0 Blowing the duct is done by applying air only.

7.1 This will remove any water or debris that could cause problems when the birdie is blown.

7.2 Air should be applied for approximately 10 minutes or less, depending on the length of the run.

8.0 The Teammate should blow the conduit and install C-wire, rope, mule tape or any type of pulling material he/she is using.

9.0 Teammates should never stand or position any part of his/her body in front of conduit as it is being blown. This can result in serious injury.

10.0 There should be an in-line shut-off for the air. This shut-off should be next to the Teammate who is blowing the conduit so he/she can shut it down immediately if there are any problems.

11.0 A Teammate should never position any part of his/her body in front of or behind the blower when blowing conduit. Doing so can result in serious injury.

## Rule 210 . . . . . .Pulling Cable

1.0 When pulling cable, care should be taken to protect Teammates and the public from injury.

- 1.1 This will require a study of the vehicle and pedestrian traffic at the job site so that the equipment can be set up in the safest manner possible.
- 1.2 All persons, including Teammates not directly involved in the pulling operation, must stay clear of wire ropes, mule tape or cables, which are under strain.

2.0 Teammates should not remain in a manhole, vault, etc. while installing or removing cable if it is indicated that a heavy pulling strain will be necessary.

3.0 Cables laid temporarily across the ground must be laid in a figure-8 position.

4.0 Cables laid temporarily across sidewalks during pulling operations must be properly protected to avoid injury to pedestrians.

5.0 When installing or removing cable with a winch line in the vicinity of energized equipment or conductors, extreme care must be taken to isolate the winch line by using suitable barriers and rubber protective material.

6.0 When installing or removing cable in the vicinity of energized equipment or conductors, the pulling and feeding equipment must be effectively grounded.

7.0 When pulling cable, the proper pulling equipment should be used, such as:

- 7.1 manhole eyes;
- 7.2 pulling wheels;
- 7.3 break-aways;
- 7.4 manhole lip wheels (corner rollers); and
- 7.5 communication devices.

## Rule 211 . . . . . .Slings (Wire-Rope, Chain, and Synthetic)

1.0 General Safety Considerations

- 1.1 Rigging equipment for material handling shall be inspected prior to each use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service and discarded immediately.
- 1.2 Rigging equipment shall not be overloaded in excess of the recommended safe working load. Safe working loads can be determined by the use of rigging guides available from the Safety Department or by use of the identification and capacity tag attached to the rigging equipment.
- 1.3 If capacity tags are not legible or not intact, the rigging equipment shall be removed from service immediately.

1.4 Special lifting hooks, grabs, clamps and other lifting accessories made for specific units must be marked to indicate the safe working loads and shall be proof-tested prior to use to 125 percent of their rated load.

1.5 These policies apply to slings used with other material handling equipment, such as shackles, welding links, pear rings, eye-bolts, etc. The types of slings covered are alloy steel chain, wire rope, metal mesh, natural or synthetic fiber rope and nylon, polyester and polypropylene synthetic web slings.

1.6 All rigging equipment that has been removed from service due to damage, shall be discarded immediately. If possible, cut the rigging into pieces to avoid future use.

1.7 When possible, a basket hitch or double-wrap basket hitch should be used instead of a choker hitch.

1.8 Slings should be used only in acceptable configurations and environments.

1.9 Slings must be properly stored when not in use and removed from the immediate work area.

1.10 Teammates should wear appropriate cut level 4 gloves when handling slings.

1.11 When tightening a sling around a load, the Teammate should never place hands or fingers between the sling and its load.

1.12 All Teammates shall be kept clear of loads about to be lifted and of suspended loads.

1.13 All slings shall be re inspected in the event of a shock load or suspected damage.

2.0 Wire-rope slings

2.1 Wire-rope slings should be removed from service and discarded if found to be in, or have, one or more of the following conditions;

- ten randomly distributed broken wires in one rope lay;
- five broken wires in one strand in one rope lay;
- wear or scraping of 1/3 of the original diameter of outside individual wires;
- kinking, crushing, bird-caging, or any other damage resulting in distortion of the rope structure;
- heat damage;
- cracked, deformed or worn end attachments; or
- corrosion of rope or end attachments.

2.2 A wire-rope sling in one of the above conditions may not be used for lifting or pulling operations.

2.3 Teammates should never thread a wire-rope sling back through its own eye. This must be done with the use of an approved shackle.

3.0 Synthetic slings

3.1 Synthetic slings should be removed from service and discarded if found to be in, or have, one or more of the following conditions:

- acid or caustic burns;
- melting or charring of the surface;
- snags, punctures, tears or cuts;
- broken or worn stitches;
- excessive wear or elongation;

- distortion of fittings; or
- missing or unreadable capacity labels, except when capacity labels for individual slings are kept at the job site.

3.2 A synthetic sling with one of the above conditions may not be used for lifting or pulling operations.

3.3 Synthetic slings must be marked with the rated capacity of each type of hitch and the type of synthetic web material.

3.4 Knotted slings must be removed from service and discarded.

3.5 Frozen synthetic slings should not be used.

4.0 Chain Slings

4.1 Chain slings must be inspected link-by-link.

4.2 Chain slings should be removed from service and discarded if found to be in, or have, one or more of the following conditions:

- links that are bent, stretched, cracked, scored or damaged by abrasion or heat;
- rings and hooks with distortion, cracks in weld areas, corrosion, scores or heat damage;
- a link that does not hinge freely with the adjoining link;
- deformed master or coupling links;
- hooks that are opened more than 15% of the normal throat opening measured at the narrowest point, or twisted more than 10 degrees from the plane of the unbent hook;
- missing or unreadable capacity labels, except when capacity labels for individual slings are kept at the job site.

4.3 Chain slings that are taken out of service may not be used for any lifting or pulling operations.

4.4 Alloy steel chain slings must be marked with the size, grade, rated capacity and reach.

5.0 General Safety Considerations

5.1 When possible, a basket hitch or double-wrap basket hitch should be used instead of a choker hitch.

5.2 Slings should be used only in acceptable configurations and environments.

5.3 Slings must be properly stored when not in use.

5.4 Teammates should wear approved cut level 4 gloves when handling slings.

5.5 When tightening a sling around a load, the Teammate should never place hands or fingers between the sling and its load.

**Rule 212 . . . . . Ladders**

1.0 Teammates are required to inspect ladders before use. All rungs, cleats, and steps shall be uniform in dimension and spacing and the ladders shall be free from structural damage or be removed from service immediately.

2.0 When climbing or working, the Teammate should always face the ladder and keep the center of

gravity between the rails.

3.0 When climbing up or down the ladder the Teammate should:

- 3.1 maintain three points of contact (two feet and one hand or one foot and two hands),
- 3.2 keep both hands free to use on the ladder, and
- 3.3 never use tool belts or other means to move tools or equipment.

4.0 Teammates should only use ladders on firm, level surfaces.

5.0 Ladders should not be placed in front of a door that opens in the direction of the ladder, unless the door is blocked, locked or guarded.

6.0 Team Fishel requires only fiberglass constructed ladders.

7.0 Teammates must not exceed the rated capacity of ladders.

8.0 Ladders should not be used as scaffolds or scaffold supports.

9.0 A Teammate should never "walk" the ladder while on it to move it from one position to the other.

10.0 Portable stepladders should be used in the fully open position only.

11.0 Teammates should not stand on the top step or top plate of portable stepladders.

12.0 Teammates should climb or stand only on the treads or rungs of portable stepladders designed for that purpose.

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

13.0 Extension Ladders

- 13.1 Before climbing an extension ladder, the Teammate should lock the ladder dogs/pawls in place.
- 13.2 Teammates should set the base of the extension ladder at approximately one quarter of the working length of the ladder from the vertical surface.
- 13.3 Substantial objects should be used to support extension ladders.
- 13.4 Extension ladders should be secured against movement.
- 13.5 To prevent slipping or displacement when working from any ladder where the top cannot be properly secured the reaching distance must not exceed one arm's length to either side of the ladder.
- 13.6 When using an extension ladder to access an upper landing surface, the Teammate should ensure the ladder extends at least three trungs beyond the upper landing surface, and secure it at the top.
- 13.7 When working from an extension ladder, the Teammate should use a fall protection harness work positioning device if it can be done safely, and only if an acceptable anchorage point is available or customer standards are more stringent.
- 13.8 Extension ladders must not be separated to form two individual ladders since doing so negates the ladders rated capacity.

14.0 When climbing fixed ladders longer than 24 feet without safety cages, the Teammate shall use a ladder safety device and personal fall arrest equipment.

15.0 Teammates shall be trained in the proper selection, use, and care of ladders. Training shall also include proper setup, identification of risks, mitigation of hazards, proper storage and transport, weight restrictions, and pre-work inspection of the ladder and its components. Refer to ladder safety training in work zone or Section 15 (Rule 1503, 3.0 Ladders)

**Rule 213 . . . . . Tree Trimming and Clearing Right-of-Way**

1.0 All tools, ropes and other equipment should be inspected before use.

2.0 Teammates must not engage in any phase of tree trimming work until they have been trained in safe tree trimming procedures.

3.0 Before starting any tree trimming, the necessary time should be taken to identify the particular hazards involved.

4.0 Teammates must remove vines and any low-hanging limbs to provide adequate room to swing an axe, brush hook or machete.

5.0 Teammates shall maintain separation from each other while using swinging tools such as axes, machetes, etc.

6.0 Teammates and the public should be kept at a safe distance when a tree is felled or trimmed.

7.0 An axe should not be used when working aloft in a tree.

8.0 Large, heavy limbs shall be removed in sections and shall be bound below the cut when there is a possibility of the limb splitting. Limbs that may create a hazard must be lowered with a rope.

9.0 Trees and limbs touching power lines should be considered as energized and handled with insulated tools unless the lines are de-energized and grounded.

10.0 When climbing trees, the Teammate should use a ladder to gain access to the trees. When a ladder can't be used, a half-inch rope or larger with saddle or approved tree gaffs may be used.

11.0 All tree climbers must use an approved fall protection harness and lanyard. The lanyard should be wrapped around a sturdy limb to prevent falls.

12.0 Teammates must make sure that tree limbs will support their weight.

13.0 All tools must be raised or lowered from the tree with a hand line or drop line.

14.0 Precautions must be taken to prevent trees being felled from hitting overhead power lines.

15.0 Teammates should not carry axes or brush hooks on their shoulders.

16.0 Ropes or winch lines must be used to guide the fall of a tree when there is a hazard.

17.0 See Section 13 – Rule 1328 for the use of chainsaws.

18.0 See Section 13 – Rule 1330 for the use of brush chippers.

**Rule 214 . . . . . .Shop Safety**

1.0 Before a Mechanic uses shop tools and equipment, he/she must be qualified and/or have demonstrated operating skills.

2.0 All machines and equipment must be inspected before use and cleaned after use.

3.0 Teammates should immediately remove defective machines, equipment, and tools from service, identify them as defective with tags, and not use them until repaired.

4.0 When operating machines or equipment, Teammates should not wear loose clothing or jewelry.

5.0 Teammate must not operate machines or equipment beyond manufacturers' specifications.

6.0 Manufacturers' operating instructions must be made available to the Mechanic.

7.0 Before working on any type of equipment, the Teammate must be sure that all potential energy sources are blocked, locked and tagged out (see Section 6: Lockout/Tagout Procedures).

8.0 When handling coolants, lubricants, solvents or cutting fluids, the Teammate should refer to proper handling instructions on the label or to Infotrac for the SDS for that particular product for required personal protective equipment.

9.0 Floor-mounted equipment/tools should be properly secured to the floor to prevent tipping.

10.0 A Teammate should never use his/her hands instead of the appropriate securing device.

11.0 Teammates should always use the following required personal protective equipment:

- cutting glasses;
- safety glasses;
- face shields;
- hearing protection;
- cut level 4 gloves;
- steel toe safety shoes;
- helmets; and/or
- FR clothing when required
- welding helmet when required.
- Helmets and vests when required by customer or posted signage

12.0 Eye wash stations must be installed in all shops.

13.0 Tools should be inspected before and after each use and should be used only for their intended purposes.

14.0 Impact tools (drift ping chisels, wedges, etc.) should be kept free of mushroom heads.

15.0 Wooden handles should be free of cracks and splinters and fit tightly in the tool.

16.0 Teammates should inspect grinders before use to ensure they are in good repair and all safety guard devices are properly attached and adjusted.

16.1 Tool rests should be adjusted to a maximum of one-eighth inch from the wheel.

16.2 The adjustable tongue should never exceed one-quarter inch away from the wheel.

17.0 All worn grinding wheels should be replaced.

18.0 The spindle speed must not exceed the maximum operating speed indicated on the wheel.

19.0 All electrical control panels must be labeled.

20.0 The walking/working area must be clear of spills.

21.0 Waste oil and fluids should be properly stored and disposed of regularly.

22.0 Extension cords and trouble lights should be in good shape with no bare wires showing. Trouble light protective cages should be in place when used.

23.0 When equipment is running in the shop, the exhaust fan should be on or exhaust tubes should be used.

24.0 When welding, protective screens should be used in the welding area.

25.0 When welding on equipment that will be left in the shop overnight, welding should terminate one hour before quitting time.

26.0 Unauthorized Teammates should not be in the shop area.

27.0 Overhead cranes should be kept in good operating condition. Before using the crane, the user should make sure there are no Teammates in the general area who are not authorized to be there.

## Rule 215 . . . . . Compressed Gas Cylinders

1.0 Cylinders should be secured in an upright position, using a substantial means suitable for conditions. Securing devices must be capable of supporting the weight of the secured cylinders.

2.0 Damaged cylinders should be identified, tagged and removed from service. The supplier should also be notified.

3.0 The valve protection cap must be installed when the cylinder is not in immediate use.

4.0 Cylinders should never be stored near combustible materials (waste, rags, oil, grease, etc.).

5.0 All compressed gas cylinders should be properly labeled.

6.0 Cylinders should not be stored near heat-producing devices or open flames.

7.0 Oxygen and fuel gas cylinders must not be stored together. They must be separated by at least 20 feet or a one- to two-hour fire-resistant barrier at least five feet high.

8.0 Cylinders should be kept in the upright position when transported.

9.0 Valve protection caps should not be used for lifting cylinders.

10.0 Valve protection caps should be in place before cylinders are lifted or moved.

## Rule 216 . . . . . Welding

1.0 General Rules

- 1.1 Any welding necessary to install or rebuild load-bearing devices shall be performed by a certified Welder. Welders and Supervisors are insisted to have been suitably trained in the safe operation of their equipment and the safe use of the process in accordance with 1910.252(a)(2))(xiii)(C).
- 1.2 Gauntlet gloves must be worn when welding or cutting.
- 1.3 Outer clothing should be free from oil or grease.
- 1.4 Clothing around wrists and neck must be fastened when necessary.
- 1.5 Pants must be long enough to cover the shoe tops.
- 1.6 Fire resistant clothing will be worn while welding or cutting.
- 1.7 Pants should not have turned up cuffs.
- 1.8 When welding or cutting, precautions should be taken so that sparks and hot metals do not strike or fall on persons or flammable materials.
- 1.9 Hot materials should be cooled or plainly marked before leaving them unguarded.
- 1.10 Tanks, oil drums or other similar containers which have contained flammable liquids such as gasoline, oils, paints, solvents, etc. shall not have heat applied to them, either by fire or welding torch, until precautions have been taken to prevent fire or explosion.
- 1.11 Proper ventilation is required when brazing, cutting or welding any lead base metals, zinc, cadmium, mercury, beryllium or exotic metals or paints not listed here shall have proper ventilation or respiratory protection.
- 1.12 Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for instant use. When the welding, cutting or heating operation is such that normal fire prevention precautions are not sufficient, additional personnel shall be assigned to guard against fire while the actual welding, cutting or heating operations is being performed, and for a sufficient period of time or at least 30 minutes after completion of the work to ensure that no possibility of fire exists (see Section 1: General Rules for information on fire extinguisher use).

1.13 A fire watch is required when welding, cutting, brazing and/or soldering is performed near combustible materials and/or in locations where fire may develop. The Teammate in charge of the fire watch must be properly trained in the use of a fire extinguisher (see Section 1 Rule 110 for Fire Preventive and Protection)

1.14 When practicable, objects to be welded, cut or heated shall be moved to a designated safe location or, if the objects to be welded, cut or heated cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place or otherwise protected.

1.15 If the object to be welded, cut or heated cannot be moved and if all the fire hazards cannot be removed, positive means shall be taken to confine the heat, sparks and slag, and to protect immovable fire hazards from them.

1.16 No welding, cutting or heating shall be done where the application of flammable paints, or the presence of other flammable compounds, or heavy dust concentrations creates a hazard or in any situation that cannot be controlled.

1.17 Precautions that are to be taken shall be in the form of a written permit. Before cutting or welding is permitted, the area shall be inspected and a written permit shall be used to authorize welding and cutting operations. Precautions are to be administered by a Safety Coordinator, Foreman or Supervisor when deemed necessary.

1.18 Any faulty or defective equipment shall be tagged out and reported to the Supervisor.

1.19 Hot Work Permits are issued for specific cutting or welding task being performed on a certain job site location. These are issued and controlled by the Customer for that specific project and documentation is to be retained for the remainder of the project. Team Fishel does not issue Hot Work Permits.

2.0 Oxygen Acetylene Welding

2.1 Welding tools must not be handled with greasy gloves or hands.

2.2 The acetylene and oxygen hoses must be inspected regularly for leaks. The hoses should be protected from sparks, hot metals and crushing.

2.3 Secondary check valves shall be installed on both lines to prevent back feed.

2.4 Acetylene should not be used at more than fifteen pounds of pressure.

2.5 Both cylinder valves should be closed tightly when the work is complete.

2.6 When connecting the regulator to a new cylinder, the regulating spring must be fully released.

2.7 Cylinder valves shall be operated at no more than three-quarters (3/4) of a turn in the open position to facilitate closing them quickly in case of an emergency.

2.8 When using a gas cutting or welding torch in a confined area, an attendant must be stationed at the cylinder to quickly close the valves should anything go wrong with the hoses or torch.

2.9 Operators and helpers must wear approved welding goggles.

2.10 Acetylene cylinders must be transported and used in the upright position.

2.11 Care should be taken to prevent dropping gas cylinders.

2.12 Cylinders must be secured with chains or metal clamps in the upright position at all times.

2.13 When transporting oxygen-gas welding rigs (other than by cart), the regulators should be removed and the safety caps installed during DOT transit.

3.0 Electric Welding

3.1 Arc-welding operators and helpers must wear approved shields or welders' goggles.

3.2 No one will be permitted inside the welding screen area while welding is in progress without wearing a shield or approved welders' goggles.

3.3 A suitable screen or barrier must be used to protect other Teammates when electric welding or cutting is taking place.

3.4 Use of white or light reflecting surfaces, such as walls, should be avoided.

3.5 When arc welding in a confined area, an attendant should be stationed nearby.

3.6 Forced air ventilation must be used at all times to replace oxygen consumed by the process and to remove gases generated by the welding process. Respiratory protection may be required (see Section 12 : Respiratory/Environmental Protection Program).

3.7 Caution must be used to prevent accidental contact of the electrode to the welding machine ground. Before arc welding on any motor vehicle or trailer that has a wet cell battery, one lead of the battery should be disconnected.

## Rule 217 . . . . . Office Safety

1.0 General Safe Work Practices

1.1 All office Teammates should be trained in emergency response procedures for their respective areas. Teammates shall be aware of the location and use of all emergency exits, gathering locations inside and outside the building for specific emergencies (fire, tornado, hurricane, etc), fire extinguishers, first aid stations, and defibrillators. (See section 5: Emergency Action Plan for more details).

1.1.1 Training shall be part of orientation for office Teammates and retraining shall occur annually to ensure proper compliance.

1.1.2 All training records shall kept locally and entered into the HRIS tracking system to be part of the Teammates permanent record.

1.1.3 In the event of an emergency, one Teammate shall be assigned to monitor and record the safe exit of all Teammates from the work area to the safe gathering area.

1.2 Spills should be cleaned up immediately.

1.3 Wet floors should be marked with a WET FLOOR sign or with appropriate warning tape until the area is dry. A dry area should be left for pedestrian traffic.

1.4 Power, phone and coaxial cords should be kept clear of doorways and other areas where they can be pinched by the opening and closing of doors.

1.5 Teammate(s) should safeguard against tripping hazards. Any hazards should be marked and reported to the Safety Coordinator.

1.6 Teammates should keep desk, file or cabinet drawers closed when not in use. To prevent tipping of file cabinets, no more than one drawer should be opened at one time.

1.7 Large, heavy objects should be stored on lower shelves and smaller, lighter objects on top shelves.

1.8 A Teammate should keep all chair legs on the floor while seated.

1.9 Teammates should not run in hallways or up or down stairs, and should use handrails where provided.

1.10 Only Underwriters Laboratories Approval (UL)/ Factor Mutual Approvals (FM) electrical appliances should be used.

1.11 Teammates should never use electrical equipment with wet hands.

1.12 Trash containers should be kept emptied.

1.13 When moving heavy or bulky items, a Teammate should remove the contents, use correct lifting techniques, and get assistance.

1.14 At the end of the workday, all small appliances (coffee makers, toaster ovens, space heaters, etc.) should be shut off and/or unplugged.

1.15 All malfunctioning or faulty electrical equipment should be removed from service, disconnected, and/or repaired.

1.16 Teammates should not use more plugs than an outlet is designed for. If additional outlets are needed, use only power strips equipped with fuse or circuit breaker protection should be used.

1.17 Teammates should not use chairs, desktops or tables as ladders.

1.18 Teammates should follow manufacturer recommendations and ensure that all safety devices are in place and operable.

1.19 Teammates should not use paper cutters unless the guards are in place. The blade should be down or in the closed position when not in use.

1.20 Teammates should not tamper with or ignore safety guards on office machinery.

1.21 A Teammate should remove any rings and/or bracelets before working on office equipment.

1.22 Before working on office equipment, the Teammate should de-energize the equipment as appropriate.

1.23 Before moving office furniture, the Teammate should remove the contents.

1.24 Electric powered space heaters should not be used unless approved by the Area/ Division Manager. If they are used, they must be attended while in use and turned off at the end of the workday.

1.25 When using office chairs a Teammate should not:

- prop feet up on the desk to avoid causing the chair to tip over.
- curl his/her feet or legs under the body as this can cause the extremity to “go to sleep” and increase the possibility of a fall when he/she stands up.

2.0 Work Stations

2.1 The Teammate should ensure the correct working height of the chair, desk and keyboard.

2.2 The Teammate should sit in an upright position, using good posture.

2.3 The Teammate should adjust the monitor to a comfortable viewing angle.

2.4 The angle of the monitor screen should be set to reduce glare.

2.5 The Teammate should keep wrists and hands in line while using the keyboard and mouse and avoid bending wrists forward or backward.

2.6 When using a computer screen, the Teammate should blink frequently to maintain eye surface moisture.

2.7 To prevent eye fatigue, the Teammate should momentarily focus eyes on a distant object.

2.8 When sitting at a computer for prolonged periods of time, the Teammate should frequently stretch and move his/her head, neck, shoulders and arms to prevent build-up of muscle tension.

2.9 Chairs should be easily and fully adjusted to allow the body to shift position to the greatest extent possible. Footrests should be used when adjustments to the chair height do not relieve pressure under the thigh.

2.10 When continuously and simultaneously using the telephone and computer, the Teammate should use the phone headrest, headset, or speakerphone to prevent injury.

2.11 Organize work areas to avoid stretching and/or twisting to reach items.

**Rule 218 . . . . . General Waste Management**

1.0 Before the start of the project, there must be an estimate of the waste that will be generated during the project if applicable. From that estimate, a proper number of containers and waste removal methods will be administered when deemed necessary.

2.0 The proper handling, organization, and storage of waste and scrap materials must be adhered to in order to reduce the potential environmental impacts. Materials need to be properly stored and handled to reduce the chance for spill or other impacts to the environment. Any outdoor activities require the proper covering of receptacles to eliminate dispersion of waste materials and runoff.

3.0 All Teammates will be instructed on the proper disposal of any and all waste materials. Waste materials can vary from general to hazardous and each Teammate should be able to identify and dispose of either (See section 4: Hazard Communication Program).

4.0 Teammates should be conscious of waste products versus recycled products and take the proper action to reuse and recycle as much waste materials as possible.

# APPENDIX A:
# DISCIPLINARY MATRIX

| MINIMUM DISCIPLINARY ACTIONS FOR SAFETY RULE VIOLATIONS OR INCIDENTS | Counseling/written warning | Refresher training w/ no pay | Same day disciplinary minimum 4 hours or 1 day off without pay | 3 days off without pay | 5 days off without pay | 5 days off without pay & 30-day probationary period | 10 days off without pay | 10 days off without pay & 3-month probationary period | 30-day suspension from driving Team Fishel vehicles | up to 30-day suspension & mandatory TAP | 12-month driving suspension (min) up to indefinite suspension | 10 days straight time pay deducted from next profit sharing check(s) | Required to pay any and all fines associated with motor vehicle violations | Termination |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Driving & DOT Violations**<br>**Examples: At-Fault Accident, DOT Violation.** | | | | | | | | | | | | | | |
| 1st Violation (within 3 years) | X | X | | | | | | | | | | | X | ** |
| 2nd Violation (within 3 years) | X | X | | | X | | | | | | | | X | ** |
| 3rd Violation (within 3 years) | | | | | | | X | | | | X | | X | ** |
| **Non-Life Threatening Violations**<br>**Examples: General PPE, Seat Belt, Safety Rules, Spotter, Minor ULP Violations** | | | | | | | | | | | | | | |
| 1st Violation (within 1 year) | X | X | | | | | | | | | | | | ** |
| 2nd Violation (within 1 year) | X | | X | | | | | | | | | | | ** |
| 3rd Violation (within 1 year) | X | | | X | | | | | | | | | | ** |
| **Life Threatening Violations**<br>**Examples: Confined Space, Excavation/Trenching, Gloves/Sleeves, Major ULP violations, Pattern of Non-Threatening Violations.** | | | | | | | | | | | | | | |
| 1st Violation (within 3 years) | X | X | | X | | | | | | | | | | ** |
| 2nd Violation (within 3 years) | X | X | | | X | | | | | | | | | ** |
| 3rd Violation (within 3 years) | X | | | | | | X | | | | | | | ** |
| **Substance Abuse Policy Violations** | | | | | | | | | | | | | | |
| 1st Positive Drug/Alcohol Test Result | X | | | | | | | | | X | | | | ** |
| 2nd Positive Drug/Alcohol Test Result | | | | | | | | | | | | | | ** |

**NOTES:**

Any Teammate who was aware of the hazard or violation, and should have taken corrective action, may be subject to the same disciplinary action as the Teammate found in violation. Appropriate disciplinary action can be taken against a Foreman, Supervisor, or Manager, if determined they were aware of, or contributed to, the violation.

**The minimum disciplinary actions are marked with an "X" for each category of violation. Depending on the facts and outcome of an investigation, an Area Manager can increase the severity of the discipline when appropriate to do so.

Appropriate disciplinary action, up to and including termination of employment shall be taken when a Teammate is involved in a series of safety violations involving multiple categories, that shows a pattern of unsafe behavior.

At the discretion of the Area Manager, other performance-related issues can be considered when applying disciplinary action, up to and including termination of employment.

# APPENDIX B:
# HEAT ILLNESS PREVENTION PROGRAM

1.0 Overview and Objectives

Teammates who work where adverse environmental factors are present are at increased risk for developing a heat-related illness. Heat illness is preventable with proper training and care.

The objective of this program is to educate our Teammates about the nature and risk of heat-related illnesses, the factors that can lead to heat illness, and the steps that shall be taken to mitigate the risk factors and protect our Teammates from heat illness.

2.0 Scope

Team Fishel's Heat Illness Prevention Program applies to controlling the risk of occurrence of heat illness and applies to all places of employment at those times when the environmental risk factors for heat illness are present.

This program is based on the California Code of Regulations, Title 8, Section 3395 but it is intended to apply to all Team Fishel operations regardless of location.

3.0 Policy

It is the policy of Team Fishel that any Teammate participating in job tasks when environmental risk factors for heat illness are present will comply with this program.

4.0 Purpose

The purpose of this program is to reduce adverse performance events related to heat illness and ensure all Teammates are aware of what heat-related illnesses are, what they can do to mitigate the risks and how best to protect themselves and their Teammates from the effects of heat illness should they occur.

5.0 Definitions

**Acclimatization** - Temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for about two hours per day in the heat.

Acclimatization of Teammates who are new to construction work or who are hired during environmentally risky seasons should be afforded a longer period to adjust to the demands of heat and humidity on the body.

**Environmental Risk Factors for Heat Illness** - Working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personnel protective equipment worn by Teammates.

**Heat Illness** - A serious medical condition resulting from the body's inability to cope with a particular heat load; includes heat cramps, heat exhaustion, and heat stroke.

For descriptions of the various heat-related illnesses and first aid remedies for each one see the chart at Appendix C.1 - Heat Related Illnesses and First Aid

**Heat Index** - A measurement that combines the air temperature with the relative humidity. It is an indication of how hot the temperature feels to the human body.

**Hydration** - The act or process of keeping the body supplied with water or fluid. Hydration is achieved naturally by drinking water or fluids containing water, eating water-rich foods, or medically through an intravenous source. The level of hydration is different for each individual and is dependent on body composition, relative health, activity level, and water loss through sweating and respiration.

**Personal Risk Factors for Heat Illness** - Factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat. Personal risk factors can decrease a Teammate's readiness and fitness for duty.

**Preventative Recovery Period** - A period of time to recover from the heat in order to prevent heat illness.

**Shade** - Blockage of direct sunlight. Canopies, umbrellas, and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

6.0 Responsibilities

6.1 The Safety Director is responsible for:

- Preparing and maintaining a written program which complies with applicable requirements.
- Periodically reviewing this program to provided added guidance and general updates.
- Create a training program for all potentially affected Teammates about the risks, mitigating factors, symptoms and appropriate response as well as maintain all training records.
- Assisting with providing training to all potentially impacted Teammates and their Supervisors on the risks and prevention of heat illness, including how to recognize symptoms and respond when they appear.

6.2 Managers and Supervisors are responsible for:

- Identifying all Teammates who are required to work where potential heat illness could occur.
- Assuring that adequate water and shade are available at a job site when the environmental risk factors for heat illness are present.
- Ensuring that all affected Teammates have received proper training on heat illness prevention.
- Ensuring that the requirements in this document are followed.
- Requesting emergency medical services in the event medical assistance is required.
- Identifying Teammates whose medical conditions and medications could impact their readiness to work and take into consideration when assigning tasks for which there is a potential for heat-related illness.

6.3 Affected Teammates are responsible for:

- Complying with the provisions of the Heat Illness Prevention Program, as described in this document and in the training sessions they attend.
- Ensuring they have drinking water available at all times when the environmental risk factors for heat illness are present.
- Ensuring they have access to a shaded area to prevent or recover from heat related symptoms.
- Reporting heat-related illness symptoms to the Supervisor or another management Teammate.

- Teammates must self-report any activities that could impact their readiness for work. Activities such as alcohol consumption, energy drink consumption, and taking certain prescribed medication can increase heat illness susceptibility and should be brought to the Supervisor's and Hydration Monitor's attention prior to work.

6.4 Safety Coordinators are responsible for:

- Ensuring all Teammates are adequately trained in the program requirements.
- Providing local guidance and oversight to ensure the program is up to date and adequate for the needs of the Teammates.
- Periodically monitoring each affected crew to ensure compliance.
- Providing local guidance.

7.0 Basic Requirements

The following basic requirements apply to all Teammates while working where environmental risk factors for heat illness are present.

Prior to entering the work environment:

7.1 All Teammates shall be identified who are required to work where environmental factors for heat illness are present.

7.1.1 This includes identifying Teammates who have an increased likelihood of heat illnesses due to Personal Risk Factors.

7.2 Training shall be provided for all potentially impacted Teammates working where environmental risk factors for heat illness are present. Training information shall include, but not be limited to, the topics listed in the training section of this written program. All Teammates and their Supervisors must be trained on the risks and prevention of heat illness, including how to recognize symptoms and respond when they appear.

7.3 Area Mangers shall ensure that there are adequate supplies of water, ice, coolers, artificial shade, air movers. water misting devices, and any other body cooling PPE that may be necessary to provide a safe working environment for their Teammates.

Daily prior to and during work:

7.4 Acclimatization to adverse conditions shall take place prior to a new Teammate being assigned a field task where environmental conditions known to contribute to heat illness exist. Teammates returning from leave or extended absence should also be gradually acclimatized to help prevent heat illness.

7.5 Teammates shall select light-weight loose-fitting, breathable clothing whenever possible. Natural fibers are better than synthetics.

7.6 Teammates should avoid eating large meals before and while working in hot environments.

7.7 Drinking water in the quantity of one quart per hour shall be available at all times for each Teammate for the duration of the entire shift while working in the heat. Supervisors shall remind Teammates to drink frequently and this topic will be addressed at the Daily Plan and Safety Briefing.

7.7.1 Sports drinks such as Gatorade and Squincher may be substituted for water but should be limited to no more than 32 ounces per day.

7.7.2 "Energy Drinks" such as Monster and Red Bull are very high in caffeine and should be avoided at all times while working in adverse temperature conditions. Excessive caffeine intake is a dehydrating agent that can directly contribute to heat illnesses.

7.8 Teammates shall have access to a shaded area to prevent or recover from heat illness symptoms and where they can take their rest breaks. The importance of taking rest breaks and recognizing when a preventative recovery period is needed allowing Teammates to cool shall be addressed at the Daily Plan and Safety Briefing.

7.9 When the combined temperature (heat index temperature based on air temperature plus humidity) is above 85 degrees Fahrenheit, each crew shall appoint a single Teammate to act as a Hydration Monitor. It shall be this Teammate's job to actively monitor work activities and call for water, rest, and shade breaks as required by the heat index and level of activity being performed.

7.9.1 Hydration Monitor shall review hydration guidelines prior to work. Consult the chart at Appendix C.2 Hydration Guidelines for the recommended hydration and rest guidelines.

7.9.2 Observe water intake for entire crew.

7.9.3 Monitor rest breaks to ensure proper compliance.

7.9.4 Intervene when maximum work period is exceeded or hydration goals are not being met.

7.9.5 Monitor Teammate behavior to help ensure heat illness symptoms are recognized in time to prevent more serious affects and notify Supervisor or Safety Coordinator when adverse symptoms first appear.

7.10 In the event a Teammate feels discomfort from the heat, a preventative recovery period is needed to allow the Teammate to cool down and prevent the onset of heat illness. When natural shade such as provided by vegetation or buildings is not available a tent or artificial structure shall be provided to allow Teammates to escape direct sunlight. This structure shall be erected as close as reasonably possible to the work to allow immediate relief when needed.

7.11 Supervisors and Teammates shall carry radios or other means of communication to ensure that emergency services can be called. Verification that the radios or other means of communication are functional at the work site shall be carried out prior to each shift.

<u>If a heat Illness is apparent:</u>

7.12 Immediately remove affected Teammate to the designated shady area for a period of rest and observation. Apply first aid measures as dictated by Teammate's symptoms. Do not leave the Teammate alone if more severe symptoms are apparent. Observe symptoms and apply the following measures to promote cooling the Teammate's core temperature.

7.12.1 Remove any extra PPE that may be contributing to the overheating such as a traffic vest or FR clothing.

7.12.2 Loosen any tight fitting clothes that can prevent cooling or decrease circulation.

7.12.3 Notify Supervisor and Safety Coordinator of potential heat illness. If symptoms indicate a more severe level of distress call the first responders or 911.

7.12.4 Apply cold towels or compresses to Teammate at the neck and armpit area.

7.12.5 Spray cool water on the Teammate to promote cooling.

7.12.6 Fan the Teammate or move to an area where air movement can be enhanced to further promote cooling.

7.12.7 Provide small doses of water (no more than 8oz. per 15 minutes) and continue observations.

7.12.8 Notify Supervisor and Safety Coordinator of any change in Teammates condition or prior to returning Teammate to work.

7.12.9 Document the incident with a Teammate Injury Report. The injury report shall include the heat index at the time of the injury, the Hydration Monitor, the hydration plan for the day as well as any details that can be used for a root cause analysis.

8.0 Training

8.1 All Teammates working in an area where environmental risk factors for heat illness are present shall receive instruction before being assigned to work tasks. Training topics shall include the following:

- Environmental and personal risk factors for heat illness.
- Procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness.
- Importance of acclimatization.
- Different types, signs, and symptoms of heat illness.
- Importance of immediately reporting symptoms or signs of heat illness in themselves or in coworkers to their Supervisor.
- Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be contacted and provided, should they become necessary.

8.2 Supervisors or their designees shall receive training on the following topics prior to being assigned to supervise outdoor Teammates:

- Information as detailed above in Teammate training requirements.
- Procedures the Supervisor shall follow to implement the provisions of this program.
- Procedures the Supervisor shall follow when a Teammate exhibits symptoms consistent with possible heat illness, including emergency response procedures.

8.3 Training shall be renewed each year prior to experiencing heat index temperatures above the action level of 85 degrees.

9.0 Program Audits

9.1 Audits of the Heat Illness Prevention Program shall be performed by the Safety Director, Supervisors and the Safety Coordinator.

9.2 Audits of the Heat Illness Prevention Program shall be performed annually.

9.3 The auditor shall review the program to ensure that heat illness prevention procedures are in place and are being properly followed.

9.4 The audit process and findings shall be documented and the program updated as necessary to meet guidelines and ensure Teammate safety.

10.0 Records

All training, audit, and other records prepared in association with the Heat Illness Prevention Program shall be managed in accordance with the requirements of Team Fishel's Injury and Illness Prevention Program.

# APPENDIX B-1:
# HEAT RELATED ILLNESSES & FIRST AID

| Condition | Description/Cause | First Aid |
|---|---|---|
| **Heat Rash** | • Prickly heat, a skin irritation caused by sweat that does not evaporate from the skin<br>• Red bumps on skin<br>• Most common heat illness | • Rest in cool area, drink fluids<br>• Keep skin dry<br>• Monitor for infection |
| **Heat Cramps** | • Muscle spasms caused by heavy sweating and electrolyte loss<br>• Usually affects large muscle groups such as legs, arms, abdomen<br>• Can be caused by drinking large amounts of water without electrolytes | • Drink fluids with electrolytes<br>• Rest in a cool place<br>• Gently stretch cramped muscles then massage muscle<br>• Call first responder |
| **Heat Exhaustion** | • Caused by insufficient flow of blood to the brain<br>• Symptoms include heavy sweating, headache, nausea, vomiting, fatigue, dizziness, rapid pulse, fainting | • Move person to cool area, use fans or A/C, lie down on back, elevate legs, drink fluids<br>• Loosen clothing, apply cool wet cloth or ice packs under armpits and groin area<br>• If symptoms do not improve, seek medical evaluation<br>• Do not leave person alone |
| **Heat Stroke** | • Life threatening medical emergency caused by failure of the body to cool properly<br>• Symptoms include very high body temp, sweating stops, irritability, confusion, hot and dry skin, rapid pulse, dizziness, seizures, unconscious | • Call 911 immediately<br>• Place worker in shady, cool area on their back with head tilted to the side<br>• Wet worker with cool water<br>• Apply ice packs in armpits and groin area<br>• Drink fluids if possible<br>• Do not leave person alone |

**Teammates should be prepared to contact first responders or 911 at any time that Heat Illness becomes apparent.*

# APPENDIX B-2:
# TEAM FISHEL HYDRATION GUIDELINES

The table below gives general guidance on length of time between water breaks and a corresponding hydration target for each hour of work.

| Temperature | Work Level | Maximum Minutes Worked Between Hydration Breaks | Hydration Target |
|---|---|---|---|
| < 80 | Normal | — | 8 – 12oz / hour |
| 80 - 85 | Normal | — | 8 – 16oz / hour |
| 86 - 90 | Normal | 50 | 12 – 20oz / hour |
| 91 - 95 | Normal | 45 | 16 – 24oz / hour |
| ≥ 96 | Normal | 40 | 24 – 32oz / hour |

- If you are performing heavy or excessive work, you will need to increase your hydration level and take more frequent water breaks.
- People with a history of renal insufficiency heart failure need to be cautious of over hydrating.
- No more than 32 oz. of sport drinks should be consumed per day.
- Energy drinks should not be consumed when proper hydration is critical.
- Hydrate frequently but in small amounts. Limit intake to 8 oz. every 15 minutes.

# APPENDIX B-3:
# HEAT STRESS INDEX

Use the Heat Index every day. Adjust your work according to the category.

| Temperature - °F | Relative Humidity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% |
| 104 | 98 | 104 | 110 | 120 | 132 | | | | |
| 102 | 97 | 101 | 108 | 117 | 125 | | | | |
| 100 | 95 | 99 | 105 | 110 | 120 | 132 | | | |
| 98 | 93 | 97 | 101 | 106 | 110 | 125 | | | |
| 96 | 91 | 95 | 98 | 104 | 108 | 120 | 128 | | |
| 94 | 89 | 93 | 95 | 100 | 105 | 111 | 122 | | |
| 92 | 87 | 90 | 92 | 96 | 100 | 106 | 114 | 122 | |
| 90 | 85 | 88 | 90 | 92 | 96 | 100 | 106 | 114 | 122 |
| 88 | 82 | 86 | 87 | 89 | 93 | 95 | 100 | 106 | 115 |
| 86 | 80 | 84 | 85 | 87 | 90 | 92 | 96 | 100 | 109 |
| 84 | 78 | 81 | 83 | 85 | 86 | 89 | 91 | 95 | 99 |
| 82 | 77 | 79 | 80 | 81 | 84 | 86 | 89 | 91 | 95 |
| 80 | 75 | 77 | 78 | 79 | 81 | 83 | 85 | 86 | 89 |
| 78 | 72 | 75 | 77 | 78 | 79 | 80 | 81 | 83 | 85 |
| 76 | 70 | 72 | 75 | 76 | 77 | 77 | 77 | 78 | 79 |
| 74 | 68 | 70 | 73 | 74 | 75 | 75 | 75 | 76 | 77 |

**NOTE: Add 10°F when protective clothing is worn.**
**Add 10°F when in direct sunlight**

| Humiture °F | Danger Category | Injury Threat |
|---|---|---|
| Above 130° | Extreme Danger | Heat stroke imminent! |
| 105° to 130° | Danger | Heat cramps and heat exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity. |
| 90° to 105° | Extreme Caution | Heat cramps and heat exhaustion likely, if exposure is prolonged and there is physical activity. |
| 80° to 90° | Caution | Fatigue possible if exposure is prolonged and there is physical activity |
| Below 80° | None | Little or no danger under normal circumstances. |

# APPENDIX C:
# TEAM FISHEL LIFTING POLICY
## BEST PRACTICE STATEMENT

Poor lifting practices and overexertion cause more injuries to Fishel Teammates than any other activities. Team Fishel spends thousands of dollars in profits every year as a result of these preventable injuries. The cost in Teammate health and well-being is more difficult to calculate but by any measure is unacceptable. In an effort to help our Teammates remain safe and healthy we are instituting the following best practices for safe lifting:

Objects and items including, but not limited to, materials, equipment, parts and tools weighing in excess of **51 pounds** shall require assisted lifting. For purposes of this practice, assisted lifting will mean either mechanical assistance or using two Teammates to perform a safe lift. Objects that weigh in excess of **51 pounds** may or may not be tagged with a lift assist tag. Consult the attached weight table for standard tools and materials and follow the guidelines. Two Teammates, lifting together, may lift an object weighing up to **105 pounds**. Materials, equipment, or tools weighing in excess of **105 pounds** will require the exclusive use of mechanical assistance. Mechanical assistance means the use of a mechanized lifting device such as a crane, backhoe, forklift, hoist, pallet truck or jack, or a mechanical tool such as a hand cart, hand truck, wheelbarrow, etc. Empty fiber or conduit reels, although not necessarily exceeding the manual weight limit, should not be moved or manipulated by hand except as part of Team Fishel's material handling procedures. Mechanical assistance may be used for any lift regardless of the weight of the item. Assistance should be used if the item being lifted is awkward in either its size or shape, or if the item must be placed in an area that is not easily accessible such as a rooftop or a vault, or which a Teammate(s) does not feel comfortable or capable of lifting by hand.

Lifting should be considered a safety-sensitive activity that can result in serious injury if performed incorrectly. Any lifting action should be preceded by adequate training and some level of stretching or range-of-motion exercise consistent with the activity being performed. (See chart on next page)

# WEIGHT CHART FOR STANDARD TOOLS, EQUIPMENT AND MATERIALS

| Tool/Equipment/Material | Weight | Color Code |
|---|---|---|
| 2" Pneumatic Mole | **28 LBS.** | Green |
| 2 1/2" Pneumatic Mole | **40-55 LBS.** | Green |
| Pneumatic Clay Spades | **22-29 LBS.** | Green |
| 1/2" Plywood | **50 LBS.** | Green |
| Electric Water Pump | **30 LBS.** | Green |
| Powder Puff Air Compactor | **35 LBS.** | Green |
| Cold Mix Bag | **35-50 LBS.** | Green |
| Sand Blasting Mix | **30 LBS.** | Green |
| 6" Backreamer | **30 LBS.** | Green |
| 8" Backreamer | **40 LBS.** | Green |
| 10" Backreamer | **100 LBS.** | Yellow |
| 3 1/4" Diameter Drill Head | **75 LBS.** | Yellow |
| 10" Core Drill with Stand | **55 LBS.** | Yellow |
| Extension Ladder 12'-24' | **52 LBS.** | Yellow |
| Extension Ladder 16'-32' | **74 LBS.** | Yellow |
| Bag of Concrete | **60-90 LBS.** | Yellow |
| 3" Pneumatic Mole | **69 LBS.** | Yellow |
| Jachhammer-60 | **69.5 LBS.** | Yellow |
| Jackhammer-90 | **92 LBS.** | Yellow |
| 3/4" Plywood | **75 LBS.** | Yellow |
| 1" Plywood | **100 LBS.** | Yellow |
| 3/4" Finn Form 4'x8' Sheet | **80 LBS.** | Yellow |
| 3,500W/4,000W Generator | **100 LBS.** | Yellow |
| 2" Water Pump | **60 LBS.** | Yellow |
| Hand Rodder | **100 LBS.** | Yellow |
| Vibratory Plate Tamper | **203 LBS.** | Red |
| Mechanized Tamper | **137 LBS.** | Red |
| 4" Pneumatic Mole | **136 LBS.** | Red |
| 5000W Generator | **185-210 LBS.** | Red |
| 6000W Generator | **210-245 LBS.** | Red |
| 12" Core Drill with Stand | **90-115 LBS.** | Red |
| | | |
| | | |

*"Green represents items that can be lifted by one Teammate"*
*"Yellow represents items that require two Teammates"*
*"Red represents items that require mechanical assistance"*

Rule 301 . . . . . Types of Testing
Rule 302. . . . . Disciplinary Actions
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Effective: April 20, 1990 (Revised 07/01/2011, 19th Revision)

Team Fishel is committed to providing a safe work environment for our Teammates, customers, business partners and the general public. There is a proven relationship between drug and alcohol use and workplace accidents. Teammates under the influence of drugs or alcohol present a threat to themselves and others. This policy meets the substance abuse requirements covered under the Federal Motor Carrier Safety Administration (FMCSA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA). For all FMCSA and PHMSA drug and alcohol testing requirements, please refer to Team Fishel's DOT policies.

## Rule 301 . . . . . Types of Testing

1. Pre-Employment
   All Teammates/Applicants must take a pre-employment drug test.
2. Random Testing
   - All active Teammates are subject to unannounced testing based upon random selection.
   - At least 50% of all CDL drivers will be drug tested every 12 months.
   - At least 10% of all CDL drivers will be alcohol tested every 12 months.
   - At least 25% of all gas Teammates and non-DOT Teammates will be tested every 12 months.
   - Gas Teammates and non-DOT Teammates are not required to submit to random alcohol tests.
   - Teammates shall report to the collection site within 30 minutes, not including travel time, once notified by the appropriate Company official.
3. Post-Accident Testing

   Team Fishel shall promptly determine and test each Teammate for drugs and alcohol, if the Teammate's performance contributed to the accident or cannot be completely discounted as a contributing factor to the accident. This includes; (1) all job damages estimated to have a value of or a potential to exceed $ 5,000; (2) all motor vehicle accidents; and/or (3) all workers compensation claims (except for insect bites and poison ivy/oak claims).

   The Teammate must remain available for testing for up to 32 hours following an accident. Failure to remain readily available for testing (including notifying Team Fishel of his/her location) may be considered a refusal to submit to testing.

   - Post Accident Drug Testing
     a. The Teammate must be drug tested within 32 hours of the accident.
   - Post Accident Alcohol Testing
     a. The Teammate must be alcohol tested within two hours of the accident
     b. If the two-hour deadline is missed, the Teammate must be alcohol tested within eight hours of the accident.
4. Reasonable Suspicion Testing

   When there is reasonable suspicion to believe a Teammate is using a prohibited drug and/or alcohol, the Teammate will be required to submit to a drug test and/or alcohol test. Two Supervisors must substantiate the decision to test. The decision to test is based on specific existing physical,

behavioral or performance indicators of probable drug and/or alcohol use. Prior to requiring a Teammate to submit to a reasonable suspicion drug and/or alcohol test, the area shall consult with either the Corporate Safety Director or Approved Representative of the Team Fishel Safety/HR Team. See Supervisor Drug and/or Alcohol Checklist, located at the back of the Team Fishel Anti-Drug Plan and at the back of the Team Fishel Alcohol Misuse Prevention Plan.

5. Return to Duty Testing

   A Teammate who has been placed into the TAP following a violation of the Team Fishel Substance Abuse Policy may return to work after completing the following:

   (i) Submitting to an evaluation and released to return to work by an approved mental health professional (in the case of all CDL drivers and/or gas Teammates, the evaluation shall be completed by a Substance Abuse Professional, or SAP); and

   (ii) Submitting to and passing, a return to duty drug and/or alcohol test; and

   (iii) Be progressing in or have completed all treatment prescribed by the mental health professional; including

   (iv) All follow up testing requirements.

6. Follow-Up Testing
   Follow-up testing is done, following the guidelines recommended by the mental health professional. A Teammate shall be subject to, at a minimum, six unannounced drug and/or alcohol follow-up tests during the first 12 months following his/her return to duty. The mental health professional may require further testing for up to 60 months following the Teammate's return to duty.

7. Other Testing
   Per Company policy, all CDL drivers will receive a non-dot drug test upon reporting for their physicals every two (2) years to renew their medical cards.

8. Customer-Required Drug and/or Alcohol Testing
   Teammates will be required to submit to drug and/or alcohol testing when such requirements are directed or imposed by a Customer.

   This will be mandatory testing and may be conducted under various circumstances, including but not limited to:

   - Prior to beginning work on a project;
   - Prior to gaining access to a Customer facility or property;
   - At various times for the duration of work on a project (i.e. random testing);
   - After an accident or near-miss incident occurs;
   - If the Customer imposes unannounced testing of all Teammates performing work on a project or projects;
   - If the Customer has reason to believe or suspects drug and/or alcohol abuse may be a pervasive problem.

   Any refusal to submit to Customer-required drug and/or alcohol testing will be treated as an admitted positive result and the Teammate will be subject to the disciplinary procedures set forth in this Substance Abuse Policy, up to and including termination of employment.

**Rule 302. . . . . Disciplinary Actions**

1.0 If a Teammate refuses to take a drug and/or alcohol test, his/her employment will be terminated.

1.1 The following listed circumstances shall be considered a positive test for refusal to submit to testing.

- Failure to appear for any drug and/or alcohol test, after being directed to do so by a Company official.
- Failure to remain at the testing site until the testing process is complete.
- Failure to provide a urine specimen for any drug test required by 49 CFR Part 40 or DOT agency regulation, including PHMSA.
- Failure to submit to an observed specimen when required.
- Failure to provide enough breath for a breath alcohol test.

2.0 If an Applicant tests positive on a pre-employment drug test, that Applicant will not be hired or will be terminated if already working.

3.0 If a Teammate tests positive on any drug and/or alcohol test the Teammate will receive an immediate suspension without pay for up to 30 days, or his/her employment shall be terminated.

4.0 Team Fishel shall strictly adhere to all DOT requirements for all covered DOT drug and alcohol testing. Team Fishel shall reserve the right to take appropriate disciplinary action, up to and including termination, for any Teammate who presents him/herself to work under the influence of alcohol and tests positive at a level of 0.02 or above.

5.0 If a Teammate is suspended, an approved mental health counselor must evaluate him/her to determine the Teammate's need of assistance resolving problems related to drug and/or alcohol use/addiction.

6.0 The Teammate may not be returned to work until the counselor releases him/her to return to work. He/she must also pass a return-to-work drug and/or alcohol test.

7.0 If the Teammate who is given a suspension refuses or fails to appear for a face-to-face meeting with an approved mental health professional, his/her employment shall be terminated.

8.0 If a Teammate refuses to report for assessment, evaluation and/or referral for treatment, his/her employment shall be terminated.

9.0 If a Teammate, after assessment, is referred for rehabilitation and refuses to enter or successfully complete such a rehabilitation program, his/her employment shall be terminated.

10.0 If a Teammate tests positive for drugs and/or alcohol a second time, his/her employment shall be terminated.

11.0 If a Teammate tests positive for both drugs and alcohol after a single incident, this counts as two positive tests and the Teammate's employment shall be terminated.

12.0 If a Teammate tests positive on a retest of an original specimen, his/her employment shall be terminated.

13.0 On-duty use or possession of drugs and/or alcohol, on Company time, in a Company vehicle or on Company property will result in proper disciplinary action, up to and including termination.

14.0 If a Teammate is returned to work in a non-safety sensitive position, Team Fishel reserves the right to reduce the Teammate's rate of pay accordingly, unless the Teammate is in a position covered by either FMCSA or PHMSA, and has been placed on a stand-down covered status.

15.0 The Medical Review Officer (MRO) receives and reviews results. The MRO also consults with the Teammate regarding positive results.

16.0 The Teammate Assistance Program is available upon request or as a referral. The phone number is 1-800-548-6456.

**Rule 303. . . . . Recordkeeping**

1.0 Records that demonstrate the collection process, the negative and positive results, the Supervisory training, and the required statistical data will be kept at the corporate office of Team Fishel, 1366 Dublin Road, Columbus, Ohio 43215.

2.0 Each Teammate's record of testing and results will be confidential. All written records are kept in locked cabinets and will not be released without the written consent of the Teammate, or as required by law.

3.0 This is merely a summary of the Team Fishel Anti-Drug Plan and Team Fishel Alcohol Misuse Prevention Plan. The Team Fishel Anti-Drug Plan and the Team Fishel Alcohol Misuse Prevention Plan are also available on the Team Fishel Intranet. This information can be accessed by clicking the Safety link on the Intranet home page. Teammates can print this Substance Abuse Policy Summary, the complete Team Fishel Anti-Drug Plan, or the Team Fishel Alcohol Misuse Prevention Plan.

*Note: This summary does not address every possible scenario; if questions arise, please call 1-800-FISHEL1 and ask for the Safety/HR Department.*

# APPENDIX A:
# FREQUENTLY ASKED QUESTIONS

1. Q: How do we order chain of custody forms?
   A: Send a request by e-mail to the Drug & Alcohol Program Administrator requesting either DOT or non-DOT forms.

2. Q: What is the time requirement for getting a post-accident drug and alcohol test?
   A: Post-accident drug testing must be done within 32 hours. Alcohol testing must be done within the first two hours after the accident. If this deadline is missed, it must be done before eight hours has elapsed. There is a reporting checklist that you can fill out with the reasons regarding testing or you must issue a letter with explanation for each test missed. These are to be attached to the proper report and forwarded to the proper person in the Safety Department

3. Q: What is the TAP?
   A: Teammate Assistance Program, which can be contacted at 1-800-548-6456

4. Q: What is the SAP?
   A: This is a Substance Abuse Professional, they have additional training that is required by the Federal Government, used to evaluate Teammates who have tested positive for drugs and/or alcohol.

5. Q: Can an applicant that tests positive on a pre-employment drug test be hired?
   A: No

6. Q: Can the applicant be hired, at a later date, after testing positive on their original pre-employment test?
   A: They are eligible to re-test 6 months from the prior positive pre-employment test, with documentation that they have completed drug counseling within the 6 intervening months. Documentation must be forwarded to the Team Fishel Corporate office.

7. Q: What are the proper steps to be taken when a Teammate has either a positive drug and/or alcohol test?
   A: The Area Manager must decide to suspend the Teammate and put them into the TAP or terminate the Teammate. Forward the TAP Referral form signed by the Teammate and the Area Manager to the Safety/HR Department. They will forward the required information to Anthem & Associates for referral to the specific type of counselor required.

8. Q: What is a split specimen?
   A: At the time of collection the specimen is split into 2 specimen bottles. If the 1st specimen is positive the applicant and/or Teammate can have the 2nd specimen tested at their own expense.

9. Q: What are some of the confidentiality issues involved in this process?
   A: Tests results are extremely confidential and are not to be disclosed to anyone other than the Teammate involved. It is not to be discussed with parents, spouses, other Teammates, etc. Test results are kept under lock and key in the Corporate Safety/HR Department.

10. Q: What constitutes a refusal to test?
    A: Refusing to submit to a drug and/or alcohol test, leaving the clinic before submitting a specimen to be tested, refusing an observed specimen.

11. Q: What is an observed specimen and why is it required at times?
    A: An observed specimen is when a medical professional must be in the room to observe or Monitor the provision of the specimen. When a specimen is below 90 degrees or above 100 degrees and is outside the range of the Teammates body temperature. The clinic is to contact the Corporate office and they are directed to collect an observed specimen.

12. Q: What is an MRO?
    A: MRO stands for Medical Review Officer. They are a licensed physician that verifies all drug test results.

13. Q: What does it mean when the MRO wants to talk to the applicant and/or Teammate?
    A: There is a question with the drug test and the MRO is looking for an explanation and/or reason that the test result could be outside of the normal range.

14. Q: What takes place when the MRO contacts corporate to talk to and applicant and/or Teammate?
    A: If it is in regards to an applicant, we will request the phone number from their application. If it is for a Teammate, we will ask they be given the 800 number to call and that they be sent home until we have been contacted by the MRO with the results.

15. Q: What is a pending drug test?
    A: The MRO has a question regarding the reading for the test. The person could have been taking a prescription medication the MRO is unaware of, the drug test is possibly positive and the MRO confirms this with the person.

16. Q: What happens if a Teammate tests positive as a result of taking another persons prescription?
    A: That would be a positive drug test. You can only take prescriptions that are in your own name. The MRO verifies any prescription medication is in the name of the applicant and/or Teammate.

17. Q: What is a cancelled drug test?
    A: The MRO never received the Chain of Custody from the clinic.

18. Q: Whose responsibility is it to make sure the Chain of Custody is received by the MRO?
    A: The clinic, but we sometimes have to call the clinic ourselves, to make sure it happens.

19. Q: What information is needed to look up drug test results?
    A: Name, social security number, date of test and chain of custody number. Searches can be done on any of these criteria.

20. Q: How are new clinics set up and when should this be done?
    A: If we are starting a new job in the area, it is a good idea to make sure we have a participating clinic in the area. It takes First Advantage 7-10 days to set up a new clinic. The information we need to provide is: City, State, Zip Code.

21. Q: What if you are having a problem with a clinic?
    A: Send an e-mail detailing the problem and/or issue and allow us to look into it.

22. Q: How are the Areas notified of drug test results?
    A: There is an updated daily drug log sent out almost every morning.

23. Q: What is the turn around time for drug test results?
    A: Best case scenario 24-48 hours. It can be held up if the MRO has not received the chain of custody, if the test is pending and the MRO wants to talk to the applicant and/or Teammate.

24. Q: Does a new CDL driver have to have a Breath Alcohol test preformed?
    A: No

25. Q: What is a dilute specimen?
    A: A specimen with creatinine and specific gravity values that are lower that expected for human urine.

26. Q: What is an adulterated specimen?
    A: A specimen that contains a substance that is not expected to be present in human urine, or contains a substance expected to be present, but is at a concentration so high that it is not consistent with human urine.

27. Q: Under what circumstances, does a CDL driver have to be drug and alcohol tested following a vehicle accident?
    A: Must be driving a commercial motor vehicle and one of the following must apply; (1) a fatality; (2) if the driver receives a citation and someone in the accident is injured and receives immediate medical attention away from the scene; or (3) receives a citation and one or more vehicles incur disabling damage requiring the vehicle to be towed from the scene.

28. Q: How do you go about finding a clinic that you can send a Teammate to for Drug & Alcohol testing?
    A: Go to the Team Fishel Intranet Site, click on “Company Forms”, “Go to #7 Safety”. The last option is Drug & Alcohol Testing Facilities. You then have the option of Testing Facilities by State/City.

# APPENDIX B:
# TESTING PROCEDURE

| CDL DRIVER DOT REGULATED (Department of Transportation) BLACK DOT FORM | GAS ONLY TEAMMATE PHMSA REGULATED (Pipeline Hazardous Material Safety Adm.) BLACK DOT FORM | ALL OTHER TEAMMATES NON-DOT REGULATED BLUE NON-DOT FORM |
|---|---|---|
| Pre- Employment | Pre- Employment | Pre- Employment |
| Random Drug Tests | Random Drug Tests | Random Drug Tests |
| Reasonable Suspicion | Reasonable Suspicion | Reasonable Suspicion |
| Issuance of 1st CDL license | Prior to assignment of gas work | Issuance of Medical Card |
| Return to Duty | Return to Duty | Return to Duty |
| Follow-up Testing | Follow-up Testing | Follow-up Testing |
| Post Accident (when DOT criteria below **is** met) | Post Accident (when PHMSA criteria below **is** met) | All Non-DOT Post Accident Testing |

| CDL DRIVER NON-DOT REGULATED BLUE NON-DOT FORM | GAS ONLY TEAMMATE NON-DOT REGULATED BLUE NON-DOT FORM | ALL OTHER TEAMMATES NON-DOT REGULATED BLACK DOT FORM |
|---|---|---|
| CDL Re-certifications | Issuance of Medical Card | The Black DOT Form should not be use for any drug test not regulated by DOT or PHMSA |
| Post Accident (when DOT criteria below **is not** met) | Post Accident (when PHMSA criteria below **is not** met) | |

# APPENDIX C:
# POST ACCIDENT TESTING

## DOT AND PHMSA REQUIRED POST ACCIDENT DRUG AND ALCOHOL TESTING

I. CDL DRIVER - DOT POST ACCIDENT DRUG & ALCOHOL TESTING REQUIREMENT

a. There are three situations in which a commercial driver[1] shall be tested for drugs and alcohol following an accident involving a commercial motor vehicle:

i. Any time the accident results in a fatality;
ii. If the commercial driver receives a citation AND someone in the accident is injured and receives immediate medical attention away from the scene; or
iii. If the commercial driver receives a citation AND one or more vehicles incur disabling damage requiring the vehicle to be towed from the scene.

[1]Anyone operating a commercial motor vehicle (CMV) as defined in §383.5 is required to have a commercial driver's license (CDL). This same definition is used in determining a driver's participation in a DOT random alcohol and drug-testing program. The applicable definition refers to vehicles used in commerce, whether interstate or intrastate, that meet one of the following criteria:

- Have a gross combination weight rating of 26,001 or more pounds inclusive of a towed unit with a gross vehicle weight rating of more than 10,000 pounds;
- Have a gross vehicle weight rating of 26,001 or more pounds;
- Are designed to transport 16 or more passengers, including the driver; or
- Are of any size and are used in the transportation of hazardous materials.

### CDL DRIVER - DOT POST ACCIDENT DRUG & ALCOHOL TESTING REQUIREMENT

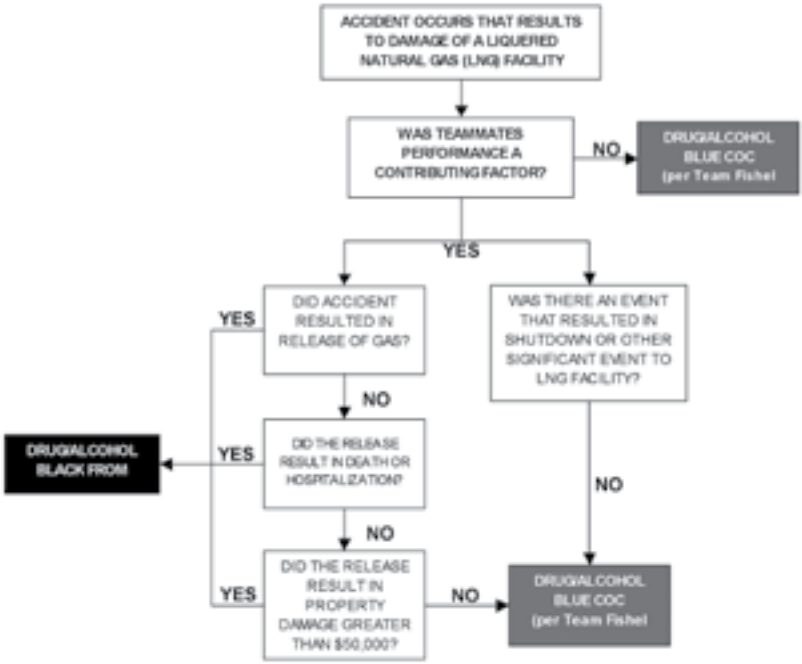


# APPENDIX D:
# POST ACCIDENT TEAMMATE TESTING

II. GAS TEAMMATE – PHMSA POST ACCIDENT DRUG TESTING REQUIREMENT

a. A Teammate whose performance either contributed to the accident or cannot be completely discounted as a contributing factor to the accident must be drug-tested. Any decision not to test must be based on the best information available immediately after the accident that the Teammate's performance could not have contributed to the accident or that (because of the time between that performance and the accident it is not likely that a drug test would reveal whether performance was affected by drug use.
b. Accident is defined as any incident that involves any of the following events:
    i. An event that involves a release of gas from a pipeline or of liquefied natural gas (LNG) or gas from an LNG facility, and
        1. A death, or personal injury necessitating in patient hospitalization; or
        2. Estimated property damage, including cost of gas lost, of the operator or others, or both, of $50,000 or more.
    ii. An event that results in an emergency shutdown of an LNG facility .
    iii. An event that is significant, in the judgment of the operator, even though it did not meet the criteria of paragraphs (i) and (ii).

## GAS TEAMMATE – PHMSA POST ACCIDENT DRUG TESTING REQUIREMENT



Rule 401 . . . . . General
Rule 402 . . . . . Definitions
Rule 403 . . . . . Purpose
Rule 404 . . . . . Hazard Communication Program
Rule 405 . . . . . Hazardous Chemical Inventory
Rule 406 . . . . . Material Safety Data Sheets (SDS's)
Rule 407 . . . . . Labels and Other Forms of Warning
Rule 408 . . . . . Hazard Determination
Rule 409 . . . . . Teammate Information and Training
Rule 410 . . . . . Recordkeeping
Rule 411 . . . . . Staff Support
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Appendix A . . . . . Suggested Detailed Training Program Outline
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Appendix C . . . . . Hydrogen Sulfide
Appendix D . . . . . GHS Label Elements Pictograph

## Rule 401 . . . . . General

1.0 Since November 25, 1985, chemical manufacturers, importers, and/or distributors have been subject to the mandate of the Occupational Safety and Health Administration (OSHA), 29CFR 1910.1200, to ensure that each container of hazardous chemicals leaving a plant is labeled, tagged, or marked with the following information:

1.1 Identity of the hazardous chemical;

1.2 Appropriate hazard warning; and

1.3 The name and address of the chemical manufacturer, importer, or responsible party.

- Chemical manufacturers are required to obtain or develop a Safety Data Sheets (SDS) for each hazardous chemical they produce or develop. As of May 23, 1988, all employers must comply with this mandate.

## Rule 402. . . . . Definitions

**Article** – A manufactured item other than a fluid or particle which:

- is formed to a specific shape or design during manufacturing;
- has end use functions dependent in whole or in part upon its shape during end use;
- under normal conditions of use does not release more than very small quantities (minute or trace amounts) of a hazardous chemical; and
- does not pose a physical hazard or health risk to Teammates.

**Chemical** – Any element, chemical compound or mixture of elements and/or compounds.

**Chemical Manufacturer** – An employer with a workplace where chemical(s) are produced for use or distribution.

**Combustible Liquid** – Any liquid having a flashpoint at or above 100° F but below 200° F, except any mixture having components with flashpoints of 200° F or higher, the total volume of which makes up 99 percent or more of the total volume of the mixture.

**Common Name** – Any designation or identification such as a code name, code number, trade name, and brand name or generic name used to identify a chemical other than by its chemical name.

**Compressed Gas** – Includes the following:

- a gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70° F;
- a gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130° F, regardless of the pressure at 70° F; or
- a liquid having a vapor pressure exceeding 40 psi at 100° F as determined by ASTM D-323-72.

**Containers** – Any bag, barrel, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For the purposes of this manual, pipes or piping systems, engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

**Teammate** – A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office Teammates who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

**Employer** – A person engaged in a business where chemicals are used, distributed, or produced for use or distribution, including a contractor or subcontractor.

**Explosive** – A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

**Exposure or Exposed** – When a Teammate is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption).

**Flammable** – A chemical that falls into one of the following categories:

- Aerosol, Flammable – An aerosol that, when tested by a method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback at any degree of valve opening.
- Gas, Flammable – Includes the following:
    a. A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less; or
    b. A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12 percent by volume, regardless of the lower limit.
- Liquid, Flammable – Any liquid having a flashpoint below 100° F, except any mixture having components with flashpoints of 100° F or higher, the total of which make up 99 percent or more of the total volume of the mixture.
- Solid, Flammable – A solid, other than a blasting agent or explosive, that is likely to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.

**Flashpoint** – The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

**Foreseeable Emergency** – Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which could result in an uncontrolled release of a hazardous chemical into the workplace.

**Hazardous Chemical** – Any chemical that is a physical or health hazard.

**Hazard Warning** – Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning, which conveys the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s).

**Health Hazard** – A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principals that acute or chronic health effects may occur in exposed Teammates.

**Identity** – Any chemical or common name that is indicated on the safety data sheet (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the SDS.

**Immediate Use** – The hazardous chemical will be under the control of and used only by the Teammate who transfers it from a labeled container and only within the work shift in which it is transferred.

**Infotrac** – call INFOTRAC at 1-800-535-5053 to obtain SDS information and emergency response consultation related to SDS, as well as non-SDS emergencies (more information available in Appendix B).

**Label** – Any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

**Safety Data Sheet (SDS)** – Written or printed material concerning a hazardous chemical that is prepared for the purpose of transmitting information about the chemical or mixture.

**Mixture** – Any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

**Physical Hazard** – A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, an organic peroxide, an oxidizer, pyrophoric (which will ignite spontaneously in air at a temperature of 130° F or below), or that it is unstable, explosive, flammable, or water reactive.

**Respirable Silica** – The respirable dust fraction of crystalline silica which enters the body by inhalation.

**Responsible Party** – Someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

**Unstable chemical** – A chemical which, in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or become self-reactive under conditions of shocks, pressure or temperature.

**Use** –To package, handle, react, emit, extract, generate as a byproduct, or transfer.

**Water Reactive** – A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

**Work Area** – A room or defined space in a work place where hazardous chemicals are produced or used, and where Teammates are present.

**Workplace** – An establishment, job site, or project at one geographical location containing one or more work areas.

## Rule 403. . . . . Purpose

1.0 The purpose of the hazard communication program is to ensure that hazardous chemical substances used in the workplace having potential for causing acute or chronic health effects are identified. Additionally, the purpose of this program is to ensure that exposed Teammates are made aware of such effects and how to avoid harmful contact or exposure.

## Rule 404. . . . . Hazard Communication Program

1.0 Team Fishel complies with the requirements of the OSHA Hazard Communication Standard incorporating the new Globally Harmonized System rules for construction by compiling a list of hazardous chemicals, using the appropriate SDS, ensuring that containers are labeled and other forms of warning are legible, and training Teammates present at a given area or jobsite. In addition, Team Fishel provides this same information to subcontractors involved in a specific project for the training of their employees.

2.0 This hazardous communication program and procedures applies to all Team Fishel areas, jobsites, Supervisors and Teammates who may be using or may be exposed to potentially harmful chemicals and chemical substances under normal conditions, or in a foreseeable emergency condition. Some states have adopted community right-to-know laws or laws that govern Teammates. All Team Fishel Area/Division Managers must be familiar with these laws and, if affected, comply with state and local requirements that are not contained in this master plan.

3.0 The Safety Director is the program coordinator, acting as the representative of the President & CEO, who has overall responsibility for the program. The Safety Director will review and update the program as necessary. Copies of the written program may be obtained from the Safety Director or any Safety Coordinator. The hazard communication program is on file in each Area/Division Manager's office. A copy is kept in every primary workplace facility and the emergency number is kept in all Team Fishel vehicles.

4.0 Teammates can obtain further information on this written program, the hazard communication standard, chemical information lists, and any applicable SDS from the Safety Coordinator or the Safety Director. Teammates will be informed of the contents of the hazard communication standard, the hazardous properties of chemicals they work with, safe handling procedures, and measures to take to protect themselves from these chemicals.

5.0 Individuals with suggestions for improvements to this program can contact the Safety Director at 1-800-FISHEL1. Team Fishel encourages all suggestions in the commitment to the success of its written hazard communication program. Team Fishel strives for clear understanding, safe behavior, and involvement in the program from all Teammates.

## Rule 405 ..... Hazardous Chemical Inventory

1.0 A chemical inventory is a list of hazardous chemicals known to be present in the workplace. Anyone who comes into contact with the hazardous chemicals on this list needs to know what those chemicals are and how to protect him or herself. Therefore, it is important to identify hazardous chemicals, whether they are found in a container or generated in work operations (e.g. welding fumes, dusts, exhaust fumes).

2.0 The chemicals on the list can cover a variety of physical forms including liquids, solids, gases, vapors, fumes, and mists. Sometimes hazardous chemicals can be identified using purchase orders. Identification of others requires an actual inventory of the facility.

3.0 Each area will be responsible for conducting an inventory of chemicals and chemical mixtures used in the workplace. Each inventory list will, at a minimum, include the following information:

- Chemical name (if known);
- Common or trade name;
- Name and address of the manufacturer or distributor;
- Where the product was purchased;
- If the vendor was local;
- Who purchased it; and
- If an SDS was obtained from the manufacturer or distributor.

4.0 The chemical inventory list, along with related work practices used in each facility, is kept in the Area/Division Manager's office.

5.0 Team Fishel does not manufacture any chemicals and, therefore, does not make any hazard determinations.

## Rule 406 .....Safety Data Sheets (SDS's)

1.0 Team Fishel has partnered with Infotrac to provide Safety Data Sheets. Each truck will be required to have a sticker as shown in Appendix B of this section. The 800 number must be legible at all times, as this is the number you will call for any information pertaining to a chemical. Faded or illegible stickers should be replaced immediately.

2.0 Team Fishel does not maintain a hard-copy of any SDS either in the various offices or in the field. Any SDS obtained as part of a local purchase will be forwarded to the local Safety Coordinator. The Safety Coordinator shall ensure that Infotrac has the SDS in their system.

2.1 The purchasing Teammate is responsible for securing SDS's for each chemical mixture ordered. If an SDS is not received with the initial order, a follow-up request must be made by the Teammate responsible for ordering the product. All documented attempts to obtain a SDS shall be kept on file until an SDS is received for the product, or until the product is no longer used.

2.2 If a manufacturer/distributor is uncooperative and does not respond to requests for a SDS, or refuses to modify an unacceptable SDS, then an alternate source for the product should be considered.

2.3 Team Fishel does not produce any SDS.

## Rule 407. . . . . Labels and Other Forms of Warning

1.0 The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving their workplace is labeled, tagged, or marked with the following information:

1.1 Identity of the hazardous chemical(s);

1.2 Appropriate hazard warnings, including GHS pictographs; and

1.3 Name and address of the chemical manufacturer, importer, or other responsible party.

2.0 The Teammates responsible for ordering, receiving and warehousing supplies will ensure that each container of hazardous chemicals received at the workplace has clearly marked labels consistent with the elements of GHS indicating the following information:

2.1 Identity of the hazardous chemical in the container;

2.2 Appropriate hazard warnings, which include words, pictures, symbols (See Appendix D), or a combination thereof, which provides at least the general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to Teammates under the hazard communication program, will provide Teammates with the specific information regarding the physical and health hazards of the chemical; and

2.3 Name and address of the manufacturer, importer or responsible party.

3.0 Team Fishel program requires that no container of hazardous substances will be released for use until the above listed data has been verified.

4.0 The warehouse or receiving Supervisor will ensure that all secondary containers are labeled with either an extra copy of the original manufactures' label or one that contains the same required information.

5.0 Team Fishel is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the Teammate who performs the transfer.

6.0 The Safety Director is to be contacted immediately if containers are not properly labeled. The Safety Director shall initiate contact with the manufacturer, importer or responsible party to secure the required labeling information.

7.0 Teammates must not remove or deface existing labels on incoming containers of hazardous chemicals unless the container itself is immediately marked with the required information. All safety cans used to transport gasoline or diesel fuel shall be legibly marked and labeled.

8.0 Team Fishel will ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container. The information may be presented in other languages as long as it is presented in English as well.

**Rule 408. . . . . Hazard Determination**

1.0 Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to determine if they are hazardous. Team Fishel is not required to evaluate chemicals unless it chooses not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical being used.

2.0 When a chemical is purchased that is not included in the master list, an evaluation shall be made by each Area/Division Manager to determine if any products in use contain one or more chemicals listed in the following source documents:

- 2.1 CFR Part 1910, Subpart Z, OSHA;
- 2.2 Threshold limit values or chemical substances and physical agents in the work environment (ACGIH); or
- 2.3 A toxic and/or hazardous substance listing published by a state agency (limited to Teammates employed in that state).

**Rule 409 . . . . . Teammate Information and Training**

1.0 Teammates will be provided with information and training on hazardous chemicals that they may be exposed to under normal circumstances or during foreseeable emergencies. Information and training shall be provided to a Teammate at the time of his/her initial hiring or assignment and whenever a new hazard is introduced into his/her work area. Those attending this training shall sign a form certifying that they have attended and received any training materials that may have been distributed.

1.1 Teammates shall be informed/trained on:

- Hazard identification process including the use and care of proper PPE;
- The requirements of this program;
- Any operations in their work areas where hazardous chemicals are present; and
- The location and availability of the written hazard communication program, including the required list of hazardous chemicals, SDS, and the information related to Infotrac (see appendix B).

1.2 Teammate training will include:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the workplace (such as monitoring conducted by the employer, continuous monitoring devices, or visual appearance or odor of hazardous chemicals when being released);
- The physical and health hazards of the chemicals in the workplace;

- The measures Teammates can take to protect themselves from these hazards, including specific procedures that have been implemented to protect them from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures and personal protective equipment to be used;
- The details of the hazard communication program, including an explanation of the hazard warning information on labels, how to read and interpret an SDS, and how Teammates can obtain and use the appropriate hazard information (this information will be provided to Teammates annually); and
- The fact that Team Fishel is a construction company and is in compliance with 29 CFR 1926.21.
- Hazards are classified/prioritized and ranked based on their level of severity. The level of severity can differ with the jobsite so it is important Teammates understand the hazard associated with the job.

2.0 Prior to a new hazardous chemical being introduced into the workplace, each Teammate in that workplace shall be given information and training outlined in 1.2 above. The Supervisor in charge is responsible for ensuring that this training is done and that the proper Infotrac information is with each vehicle.

3.0 Hazardous non-routine tasks

3.1 Periodically, Teammates may be required to perform non-routine jobs or tasks. Prior to starting work on these projects, each affected Teammate shall be given information about hazardous chemicals that they may be exposed to and how to identify and eliminate or minimize the harmful effects of such exposure. The Supervisor in charge or his/her designated representative shall be responsible for non-routine chemical hazard pre-job orientation.

4.0 Chemicals in unlabeled pipes

4.1 Work activities may include areas where hazardous chemicals are transported through unlabeled pipes or pipeline.

4.2 Prior to starting work in such areas, the Supervisor in charge or his/her designated representative shall inform all affected Teammates regarding the chemical in the pipe, the potential hazards, and the specific safety precautions to be taken.

5.0 Subcontractor information

5.1 It is the responsibility of the Supervisor in charge to provide subcontractors with the following information. Likewise, any contractor Team Fishel is working with must provide this information:

- Notification about hazardous chemicals to which the subcontractor's employees may be exposed while on Team Fishel property or third party property while under contract to Team Fishel, including those that may be encountered during routine work and during a foreseeable emergency;
- Notification of hard copies at local offices and the use of Infotrac
- Precautionary measures that the subcontractor may take to lessen the possibility of exposure.

## Rule 410 . . . . . Recordkeeping

1.0 Teammates or their designated representatives have the right to access their relevant exposure and medical records.

2.0 Definitions

**Access** – The right and opportunity to examine and copy.

**Designated Representative** – Any individual or organization to which a Teammate gives written authority to exercise a right of access. In the case of a deceased or legally incapacitated Teammate, the Teammate's legal representative may directly exercise all the Teammate's rights.

**Teammate** – A current Teammate, a former Teammate, or a Teammate being assigned or transferred to work where there will be exposure to toxic substances or harmful physical agents.

**Teammate Exposure Record** – A record containing any of the following types of information:

- Workplace monitoring or measuring of a toxic substance or harmful physical agent;
- Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess a Teammate's use of alcohol or drugs;
- Safety Data Sheet(s) indicating that the material may pose a hazard to human health; and
- In the absence of an SDS, a chemical inventory or any other record which reveals where and when used and the identity of a toxic substance or harmful physical agent.

**Teammate Medical Record** – A record concerning the health status of the Teammate, which is made or maintained by a physician, nurse, or other health care personnel or technician, including:

- Medical and employment questionnaires or histories (including job description and occupational exposures);
- The results of medical examinations (pre-employment, pre-assignment, periodic or episodic) and laboratory tests (including chest X-ray examinations taken for the purpose of establishing a base line or detecting occupational illnesses);
- Medical opinions, diagnoses, progress notes, and recommendations;
- First Aid records;
- Descriptions of treatments and prescriptions; and
- Teammate medical complaints.

A Teammate medical record does not include medical information in the form of:

- Physical specimens (blood or urine samples which are routinely discarded as part of normal medical practice);
- Records created solely in preparation for litigation which are privileged from discovery under the applicable rules of procedure or evidence; or
- Records concerning voluntary Teammate assistance programs (alcohol, drug abuse, or personal counseling programs)

**Specific Written Consent** – A written authorization containing the following:

- The name and signature of the Teammate authorizing the release of medical information;
- The date of the written authorization;
- The name of the individual or organization that is authorized to release the medical information;

- The name of the designated representative that is authorized to receive the released information;
- A general description of the medical information that is authorized to be released;
- A general description of the purpose for the release of the medical information; and
- A date or condition upon which the written authorization will expire (if less than one year).

3.0 Teammate medical records

3.1 The medical record for each Teammate will be preserved and maintained for at least the duration of employment plus 30 years.

3.2 The medical records of Teammates who have worked less than one year for Team Fishel need not be retained beyond the termination of employment if they are provided to the Teammate upon termination of employment.

4.0 Teammate Exposure Records

4.1 Each Teammate exposure record shall be preserved and maintained for at least 30 years.

**Rule 411 . . . . . .Staff Support**

1.0 Corporate staff as requested or required shall provide advice and functional guidance as well as onsite assistance.

**Rule 412 . . . . . Responsibilities**

1.0 The supplier shall furnish an SDS for all purchased chemicals and hazardous materials and affix the proper label(s).

2.0 The responsibilities of a Corporate Safety Representative include the following:

- Develop the hazard communication program, policies and procedures;
- Implement, administer and coordinate the hazard communication program;
- Receive copies of all SDS's;
- Maintain records, programs, policies, procedures and training aids;
- Develop and delegate implementation of the training program;
- Maintain training records;
- Stay abreast of new developments and changes; and

3.0 The Area/Division Manager will be responsible for administering the hazard communication program at the area level. The Area/Division Manager must:

- Designate a Safety Coordinator;
- Maintain files of the written program, hazardous materials inventory;
- Administer the training program;
- Work closely and cooperatively with the Corporate Purchasing Manager, Safety Director and Fleet Manager;
- Ensure proper labeling.

4.0 The Safety Coordinator is responsible for administering and coordinating the program with the Area/Division Manager in keeping with written policies and procedures. He/she must:

- Provide and document the hazard communications training for new Teammates; and
- Ensure each Team Fishel vehicle on job-sites has legible Infotrac information (see Appendix B of this section).

5.0 Supervisors and Foremen are responsible for:

- Becoming fully acquainted with the hazard communications program;
- Assisting with keeping and updating the required inventories;
- Ensuring that all hazardous materials are properly labeled and that labeled and that all vehicles have current Infotrac stickers in place;
- Ensuring that affected Teammates receive proper instruction and adhere to safe practices;
- Assisting with continually updating the inventory of hazardous materials being used;
- Knowing the location of the hazard communications program, policies, and Infotrac so they can advise Teammates requesting this information;
- Checking labels on all containers of hazardous materials, and reporting and correcting irregularities; and
- Ensuring Teammates are informed and trained, and that they follow safe practices.

6.0 Teammates are responsible for:

- Being informed;
- Following safe practices;
- Informing their Supervisors of any irregularities or hazardous conditions; and
- Protecting themselves and their fellow Teammates at all times.

# APPENDIX A:
# SUGGESTED DETAILED TRAINING PROGRAM OUTLINE

**Element 101 . . . . . Reason for Training**

1.0 Inform Teammates of the Team Fishel hazard communication program.

2.0 Provide for Teammates safety and welfare.

3.0 Provide a comprehensive understanding for the hazard identification process and the proper use and care of PPE.

**Element 102. . . . . The Hazard Communication Program**

1.0 Introduce written program

- 1.1 General information
- 1.2 Applicable definitions
- 1.3 Purpose
- 1.4 Hazardous communication program
- 1.5 Hazard evaluation procedures
- 1.6 Hazardous chemical inventory
- 1.7 Ensure Teammates are aware of Infotrac and how to access the service
- 1.8 Recordkeeping
- 1.9 Staff support
- 1.10 Responsibilities

**Element 103. . . . . .Locations and Availability of Written Information**

1.0 Locations of written program

2.0 Locations of the SDS via Infotrac

3.0 Infotrac

4.0 Proper labeling

5.0 Who can answer questions

**Element 104. . . . . Safety Data Sheets (distribute copies)**

1.0 What they are

2.0 Where they can be found

3.0 Infotrac
4.0 Who furnishes them and why
5.0 Required information
6.0 How to read and interpret an SDS
7.0 Availability (get them when given products by customers or when purchasing products off the shelf)

**Element 105. . . . . Labeling**

1.0 What must be labeled
2.0 What information must be contained on labels
3.0 Who will ensure that labels are affixed
4.0 How to read and interpret labels
5.0 Who to advise if labels are missing
6.0 How to refer to the SDS after reading the label
7.0 Exemptions
8.0 Teammates' responsibilities

**Element 106. . . . . Chemicals in the Work Area**

1.0 Chemical Name
- 1.1 Hazards
  - Flammable
  - Reactive
  - Toxic on contact
  - Toxic by inhalation
  - Cancer-causing
  - Reproductive problems
  - Irritant
  - Causes burns
  - Other
- 1.2 How can presence be determined if toxic
  - In the air
  - On the skin
  - What level is hazardous
  - What symptoms indicate overexposure
- 1.3 How to prevent overexposure

- Monitoring the air in workplace
- Ventilation
- Personal protective equipment
- Medical surveillance
- Mechanized processes to avoid contact

1.4 Personal protective measures by Teammates

- Equipment for normal use
- Equipment for a foreseeable emergency
- How to obtain equipment
- How to use equipment

**Element 107. . . . . .How Teammates Can Protect Themselves**

1.0 Practice safe work habits

2.0 BE INFORMED!

3.0 Recognize hazards

3.1 Identified hazards must be addressed immediately. This can be done by referring to a hard copy SDS or by calling the 800 number (Infotrac) that Team Fishel has provided for you.

3.2 After confirming the chemical, and identifying the hazards of it, contact your Supervisor or Safety Coordinator. They will assure the proper actions are taken to mitigate the hazard.

3.3 The chemical should be disposed of properly, and Teammates made aware the situation has been controlled.

3.4 Documentation of the hazard is necessary when extra pre-cautions are taken to ensure the hazard is under control.

4.0 Know defense – know how to use information on chemical hazards

5.0 Know emergency procedures

6.0 Ask Supervisor if there are any questions or uncertainty

7.0 Infotrack # 1-800-535-5053

## Appendix B:
## SDS: INFOTRAC

| CHEMICAL | INFOTRAC |
|---|---|
| Spills Poisoning<br>Disposal Emergencies<br>**SDS**<br>**Material Safety Data Sheets**<br>**200 N PALMETTO • LEESBURG, FL**<br>**1-800-535-5053 • 352-326-3902** | **1-800-535-5053**<br>**Info. You Need When You Call:**<br>**Product Name Or**<br>**Manufacturer Name** |

**What's Happening:** Team Fishel has partnered with **INFOTRAC** to provide management of our Safety Data Sheets (SDS). In addition to the **SDS** maintained at your office/shop, you are now able to call INFOTRAC at **1-800-535-5053** to obtain SDS information and emergency response consultation related to SDS, as well as non-SDS emergencies. This is not a replacement to the SDS maintained at each office/shop, but an additional tool to allow Teammates to more quickly locate and find SDS information in the case of an emergency.

**Why SDS Matters:** It is important for every Teammate to understand how SDS clearly spells out the identity and characteristics of hazardous chemicals; the types of hazards that might be present; the potential bad effects of exposure; how Teammates can protect themselves from exposure; and what to do in case of exposure or emergency. Some of the things you will come in contact with that could be potentially hazardous if misused are PVC Pipe Cement, Unhardened Concrete, Black Asphalt Mix, Diesel Fuel, Regular Unleaded Fuel, Brake Parts Cleaners, Carbon Monoxide, Anti Freeze, Brake Fluid, Glues, Oils, Propane, and Welding Rods.

**How do Teammates use INFOTRAC?:** For any SDS incident, whether it be an emergency or just for your own information, about a particular chemical used by Team Fishel, **Teammates may simply call 1-800-535-5053**, 24 hours a day, 7 days a week, 365 days a year.

Upon request, INFOTRAC will immediately (within minutes) send by **e-mail**, **voice** and/or **fax a copy of the SDS** to wherever it's needed.

**Teammates with non-SDS emergencies, where first responders are needed (police, fire, and ambulance), should call 911 first!**

**How INFOTRAC Works:** At the time an emergency call is received at INFOTRAC's Emergency Response Center, it is immediately answered by one of INFOTRAC's trained Emergency Response Technicians (ERT). Should there be any injuries or chemical exposure, the ERT will immediately advise initial first aid procedures and then, if needed, interlink with a poison control center doctor or toxicologist to obtain additional medical support. The INFOTRAC responder will provide product and chemical information to medical personnel as well.

The ERT will proceed with an evaluation of the hazardous materials incident and will disseminate information regarding initial isolation and evacuation radius, fire-fighting procedures, chemical incompatibilities, protective clothing requirements, and any additional information needed in handling first line response.

The INFOTRAC responder will then notify the Team Fishel Teammate(s) designated as our point-of-contact, and advise them of the incident status, and, if necessary, connect them with the emergency site.

Each incident is audio recorded and logged by date and time. A detailed written incident report will be sent to Team Fishel's point-of-contact. After an incident has occurred, INFOTRAC can assist Team Fishel in the completion of necessary Federal notifications and reports.

INFOTRAC supports Team Fishel from incident start until incident closure, never leaving Teammates "hanging" in the middle of an unfamiliar situation.

# Appendix C:
# Team Fishel: Hydrogen Sulfide Identification & Procedures

1. **What is Hydrogen Sulfide?**
   - Hydrogen Sulfide occurs naturally in crude petroleum and natural gas. It can also result from bacterial breakdown of organic matter.
   - Hydrogen Sulfide can also result from construction related activities performed on or near natural gas lines and various drilling operations.
   - Identifying Hydrogen Sulfide can be tough, but this list will allow you to become more familiar with this deadly gas. Hydrogen Sulfide is a colorless, soluble in water, and a flammable gas under normal conditions. It is commonly known as hydrosulfuric acid, stink damp, and sewer gas. It smells like rotten eggs. Teammates should be able to recognize the smell when working in hazardous environments.

2. **How can Teammates be exposed to Hydrogen Sulfide?**
   - Hydrogen Sulfide is released primarily as a gas and will spread in the air.
   - In some instances, it may be released as a liquid waste from an industrial facility.
   - A self-contained breathing apparatus or airline respirator with escape SCBA should be used in the event Hydrogen Sulfide is present in any Team Fishel work environment.
   - Teammates should be aware of the company's emergency plans (Section 5 of this manual) in the event Hydrogen Sulfide does become present.
   - Teammates should also be aware of the contingency of the owner if Hydrogen Sulfide should appear. If the owner fails to provide instructions, Teammates must follow the emergency action plans in section 5 of this manual.
   - At Team Fishel, Teammates can be exposed to Hydrogen Sulfide when working on/around natural gas lines.

3. **How can Hydrogen Sulfide affect Teammates?**
   - Hydrogen Sulfide is considered a broad-spectrum poison, meaning it can poison several different systems in the body.
   - Breathing very high levels of Hydrogen Sulfide can cause death within just a few breaths. There could be loss of consciousness after one or more breaths.
   - Exposure to lower concentrations can result in eye irritation, a sore throat and cough, shortness of breath, and fluid in the lungs. These symptoms usually go away in a few weeks. Long-term, low-level exposure may result in fatigue, loss of appetite, headaches, irritability, poor memory, and dizziness.
   - When working on or near natural gas lines, Teammates will be provided with the proper training to recognize Hydrogen Sulfide.
   - Training will include but not limited to:
     - Knowledge of what Hydrogen Sulfide is,
     - Where Hydrogen Sulfide comes from,
     - How to identify the presence of Hydrogen Sulfide, and
     - Knowledge of the proper methods when there is a known exposure.

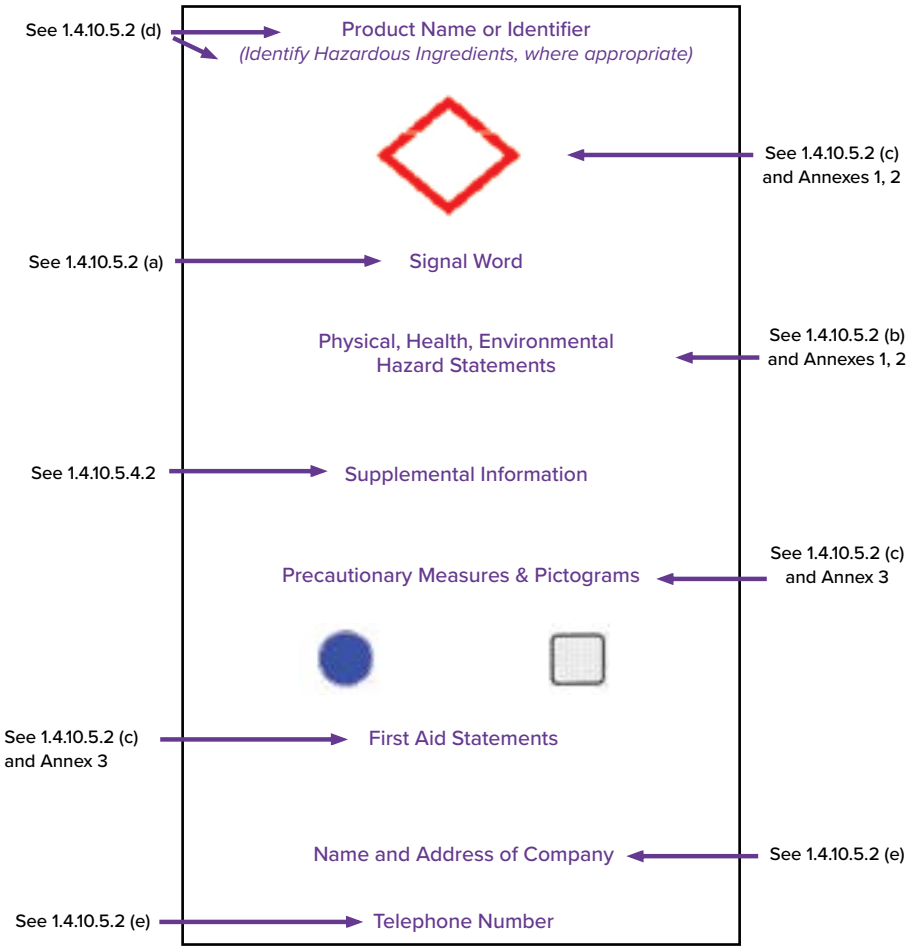
**4. Means and Methods to determine Teammate Exposure**

- In case of life-threatening Hydrogen Sulfide poisoning, measurements of blood sulfide or urinary thiosulfate levels may be used to confirm exposure. However, samples need to be taken within two hours of exposure to be useful.

**5. Acts and Regulations**

- Team Fishel acknowledges OSHA standard 1926.800 and specifically 1926.800(j)(1)(v)(A) through 1926.800(j)(1)(v)(D) for Hydrogen Sulfide. Team Fishel will also follow 1926.800(j)(1)(vi) through 1926(j)(1)(vi)(B) in order to control the work environment.
- EPA has established that Hydrogen Sulfide is a regulated toxic substance and is a hazardous substance as defined under the Federal Water Pollution Control Act.
- Fixed or portable monitors that alarm when PEL exceeds the preset level of 20 PPM for 1910 or 10 PPM for 1926 will be used as a method of detecting H2S.
- Team Fishel acknowledges OSHA and EPA in the workplace. Teammates are required to act and perform in a manner that is at or above the standards provided by OSHA and EPA.
- The atmosphere in all underground areas shall be tested quantitatively for Hydrogen Sulfide, and other toxic gases, dusts, vapors, mists and fumes as often as necessary to ensure that prescribed limits (29 CFR 1926.55) are met.

# Appendix D:
# GHS Label Elements Pictograph



Rule 501 . . . . . Purpose
Rule 502 . . . . . General Information
Rule 503. . . . . Evacuation Teams
Rule 504 . . . . . Basic First Aid Team
Rule 505 . . . . . Local Program Coordinator Responsibilities
Rule 506 . . . . . Training
Rule 507. . . . . Alarm System
Rule 508 . . . . . Fires
Rule 509 . . . . . Tornadoes
Rule 510 . . . . . Blizzards
Rule 511 . . . . . Hurricanes
Rule 512 . . . . . Hazardous Chemical Releases – Outside the Building
Rule 513 . . . . . Hazardous Chemical Releases – Inside the Building
Rule 514 . . . . . Floods and Flash Floods
Rule 515 . . . . . Bomb Threats
Rule 516 . . . . . Building Security
Rule 517 . . . . . Lightning Policy
Rule 518 . . . . . Workplace Violence Prevention Plan
Appendix A . . . . . Fire Evacuation Instructions
Appendix B . . . . . Tornado Emergency Instructions
Appendix C . . . . . Blizzard Emergency Instructions
Appendix D . . . . . Hurricane Emergency Instructions
Appendix E . . . . . Chemical Leaks/Spills Outside the Building – Emergency Instructions
Appendix F . . . . . Chemical Leaks/Spills Inside the Building – Emergency Instructions
Appendix G . . . . . Floods & Flash Floods – Emergency Instructions
Appendix H . . . . . Bomb Threats – Emergency Instructions
Appendix I . . . . . Bomb Threat Checklist
Appendix J. . . . . Building Security
Appendix K . . . . . Workplace Violence

## Rule 501 . . . . . Purpose

1.0 OSHA's Emergency Action Plan standard, 29 CFR 1910.39a, requires that Team Fishel have a written Emergency Action Plan (EAP). This plan applies to all Team Fishel offices and should be tailored to specific offices where Teammates may encounter an emergency situation.

2.0 The EAP communicates to Teammates the procedures to follow in emergencies. This written plan is available, upon request, to Teammates and any Loss Control or OSHA officials who ask to see it.

3.0 Under this plan, Teammates will be informed of:

- the plan's purpose;
- emergency escape procedures and route assignments;
- procedures to account for all Teammates after emergency evacuation has been completed;
- rescue and medical duties for Teammates who perform them;
- preferred means for reporting fires and other emergencies;
- types of evacuations to be used in various emergency situations; and
- any alarm systems in use.

4.0 The Safety Director is the overall program coordinator, acting as the representative of the President, who has overall responsibility for the plan.

4.1 The Safety Director will review and update the plan as required.

4.2 Copies of this plan can be obtained from the Safety Director.

4.3 Local Safety Coordinators will be responsible for developing and implementing plans at the Area and Division offices under the direction of the respective Area Manager.

4.4 Contact information for the Local Safety Coordinator and Safety Director shall be made available to anyone with questions regarding their local area EAP(s).

5.0 If after reading this plan, you find that improvements can be made, please contact the Safety Director. We encourage all suggestions because we are committed to the success of our Emergency Action Plan. We strive for clear understanding, safe behavior, and involvement in the plan by all Teammates.

## Rule 502 . . . . . General Information

1.0 All office, shop, and warehouse Teammates will be trained in safe evacuation procedures, and refresher training will be conducted whenever a Teammate's responsibilities or designated actions under the plan change, or when the plan itself changes.

2.0 The training includes the establishment of emergency escape routes, which will be posted in all offices and at all exits. As a matter of general practice, stairwells and hallways are the primary means for evacuation.

3.0 No Teammate is permitted to re-enter the building until advised by the Safety Director or local plan administrator once determination has been made that re-entry is safe.

## Rule 503. . . . . Evacuation Teams

1.0 Evacuation teams must be established at every location where Teammates work or meet. A separate team should be established for each floor or building wing.

2.0 These teams are responsible for the safe and orderly evacuation in all types of emergency situations.

3.0 The evacuation teams will be trained in the complete building layout and in the various alternative escape routes in case of emergency or disaster.

4.0 These Teammates will be responsible for the following:

- Ensuring everyone on the floor is aware of any alarm that is sounded.
- Directing Teammates to the quickest, safest evacuation route. This includes making sure any hazardous areas, if known, are avoided.
- Ensuring any and all disabled Teammates are assisted in the evacuation.
- Checking the entire floor, including bathrooms, to make sure all Teammates have been evacuated.
- Taking a head count at the designated meeting places to ensure all Teammates are accounted for.

## Rule 504 . . . . . Basic First Aid Team

1.0 Basic first aid may be required during an emergency.

2.0 First aid kits shall be conspicuously located in areas where Teammates work or congregate and their location shall be made known to all Teammates as a part of training.

3.0 The basic first aid team shall consist of the local Safety Coordinator or Safety Director, and at least one other trained Teammate who would normally be present at the office in question.

3.1 A best practice is to have a backup team member at each office.

3.2 These Teammates will maintain their basic first aid certifications every two years.

3.3 These Teammates would be responsible for providing medical assistance within their capabilities to Teammates requiring first aid during an emergency situation.

4.0 Professional emergency service responders will direct all rescue and medical duty assignments upon their arrival on site.

## Rule 505 . . . . . Local Program Coordinator Responsibilities

1.0 The Local Program Coordinator shall bear the following responsibilities.

1.1 He/she shall develop an Emergency Action Plan for each office shop, and warehouse in his/her area. It should be reviewed annually and updated as necessary.

1.2 He/she should immediately notify the local fire and police departments in the event of an emergency.

1.3 He/she should distribute procedures for reporting a fire, bomb threat, or other emergency, the location of emergency exits, and evacuation routes to each affected Teammate.

1.4 He/she shall conduct drills to (acquaint) Teammates with emergency procedures, and to judge the effectiveness of each plan. Annual fire drills are required.

1.5 He/she shall ensure all local fire codes and regulations are followed as specified.

1.6 He/she shall have all fire extinguishers inspected by a vendor annually.

1.7 He/she shall train designated Teammates in the use of fire extinguishers and the application of Basic First Aid.

1.8 He/she shall have the intercom tested annually to make sure it is working properly.

1.9 He/she shall have the fire sprinkler system tested by a vendor every other year.

1.10 He/she shall decide to remain in or evacuate the building in the event of an emergency.

## Rule 506 . . . . . Training

1.0 All Teammates will receive training on the EAP initially, when responsibilities change, and when the EAP changes.

2.0 All Teammates will be trained in the use of fire extinguishers.

3.0 All Teammates will be trained in evacuation procedures.

4.0 The Receptionist, Relief Operators, Office Managers, and regular office staff will be trained in emergency notification procedures for Teammates via the intercom system, emergency reporting procedures, and bomb threat procedures.

5.0 The first aid team will be trained in basic first aid procedures.

6.0 The evacuation team will be trained in more specific evacuation procedures.

## Rule 507. . . . . Alarm System

1.0 The office intercom system, which is connected to the phone system, will serve as the emergency alarm system.

2.0 Should the phone lines go out of service, the Receptionist, or designated office Teammate, will need to personally contact the members of the evacuation team and first aid team, notifying them of the type of emergency.

3.0 The evacuation team will then spread the alarm and begin evacuation procedures if necessary.

## Rule 508 . . . . . Fires

1.0 Workplace fires pose the greatest possibility of an emergency in any office. Team Fishel typically does not store a great deal of chemical products in its warehouses, but what is stored is often flammable.

2.0 Additional potential fire hazards include individual space heaters, faulty or inadequate extension cords, material storage within three feet of a heat source, any records retention area, computer equipment, lightning, and smoking.

3.0 There are three types of fires this EAP addresses.

- 3.1 Class A fires involve ordinary combustibles such as wood, paper, or cloth.
- 3.2 Class B fires involve flammable or combustible liquids such as gasoline, paints, or propane.
- 3.3 Class C fires involve electrical fires such as kitchen appliances, extension cords, panel boxes, or lighting.

4.0 Every office, shop, warehouse, and storage area must have an adequate number of Class ABC fire extinguishers located in the building.

- 4.1 These extinguishers can be used to put out any type of fire.
- 4.2 These should typically be located in or near stairways, on shop and office walls, and near chemical or fuel storage areas.

5.0 If a Teammate notices a fire, he/she should dial 911 immediately, and notify the Receptionist, Safety Coordinator, or Office Manager so that the evacuation alarm can be sounded. A Teammate should never wait until he/she realizes that the fire can't be extinguished without assistance.

6.0 If a Teammate decides to use an extinguisher on a small fire, the PASS system should be utilized:

P = Pull the pin

A = Aim the nozzle at the base of the flames

S = Squeeze the handle while holding the extinguisher upright.

S = Sweep the extinguisher from side to side, covering the base of the fire with the extinguishing agent

7.0 A Teammate should never try to fight the fire if:

- The fire is spreading beyond the spot where it started.
- He/she can't fight the fire with his/her back to an escape exit.
- The fire can block the only escape.

8.0 Fire Evacuation Instructions (Appendix A)

## Rule 509 . . . . . Tornadoes

1.0 Tornadoes are a distinct possibility in many of Team Fishel's operating areas.

2.0 Tornado season is generally from April thru July. The primary months for tornadoes are April, May and June, but tornadoes can form at any time during the year.

3.0 Tornadoes tend to occur in the afternoon and evening. Over 80% of all tornadoes strike between noon and midnight.

4.0 Tornadoes generally travel from the southwest to the northeast. The winds of a tornado can reach speeds of 300 MPH.

5.0 The National Weather Service issues 2 advisory notices when tornadoes are in the area.

- 5.1 A tornado watch is issued when weather conditions are such that tornadoes are likely to develop.
- 5.2 A tornado warning is issued when a tornado has been sighted or indicated by radar.

6.0 In areas prone to tornadoes, the Safety Coordinator should be aware of the location of the nearest tornado siren as well as the test schedule.

7.0 Each office should have a NOAA weather radio located in the building. When the National Weather System activates their emergency weather notifications, this radio has a warning alarm tone and battery back-up and will broadcast the weather emergency.

8.0 Some of the greatest dangers posed by tornadoes are building collapse and flying glass.

9.0 If a tornado warning is issued, or a tornado is sighted, the Receptionist should be notified immediately. He/she will then use the office intercom to notify other Teammates of the emergency.

- 9.1 Tornado Emergency Instruction (Appendix B)

10.0 Upon hearing the alarm, Teammates should go to the predetermined location in their respective offices until the danger has passed or the "all clear" signal is given.

11.0 Under no circumstances should Teammates leave the building during a tornado.

12.0 If a Teammate is caught outside in the parking lot, he/she should take immediate refuge in a ditch or depression, or the lowest point of land, and be cautious of rising water.

## Rule 510 . . . . . Blizzards

1.0 Blizzards are the most dangerous of all winter storms. They combine cold air, heavy snow, and strong winds that blow the snow about and may reduce visibility to only a few yards.

2.0 While some of Team Fishel's operating areas don't typically experience dangerous winter conditions, blizzards have occurred in the past.

3.0 The National Weather Service issues the following advisories when there is the possibility of a blizzard:

- 3.1 A Blizzard Warning is issued when considerable snow is expected with winds of 35 MPH or more.
- 3.2 A Severe Blizzard Warning is issued when very heavy snowfall is expected, with winds of at least 45 MPH and temperatures of 10 degrees (F) or lower.

4.0 If enough advance warning is given about an arriving blizzard, Teammates should be released from work early to allow them to get home before the storm arrives.

5.0 If Teammates are stranded at the office by a blizzard, non-perishable food, water and blankets should be available for an extended stay.

6.0 Teammates who are stranded at any office by a blizzard should congregate in the predetermined place of safety

7.0 During the winter season, Teammates located in an area where a blizzard is possible should keep a supply of non-perishable food, extra clothing, blankets and a shovel in their cars/trucks.

8.0 Every office should have a NOAA Weather Radio located in the building. When the National Weather Service activates their weather emergency notifications, this radio has a warning alarm tone and battery back-up and will broadcast the weather emergency.

- 8.1 Blizzard Emergency Instructions (Appendix C)

## Rule 511 . . . . . .Hurricanes

1.0 Hurricanes are the most dangerous of all storms. They combine heavy rain, strong winds, and dangerous lightning that can have a significant and deadly impact in or near coastal areas.

2.0 While most of Team Fishel's operating areas usually don't experience such conditions, some areas have seen major hurricanes nearly every year.

3.0 The National Weather Service issues advisories when there is the possibility of a hurricane. These warnings often give sufficient notice of both the potential direction or storm path, and the anticipated strength of the storm. Storm strength is based on wind speed and ranges from Category 1 to Category 5. Hurricanes often create flooding, large hail, and extremely powerful winds, and can often create tornadoes as an effect of the strong winds.

4.0 If enough advance warning is given about an arriving hurricane, Teammates should be released from work to allow them to safely evacuate before the storm arrives.

5.0 If Teammates are stranded at the office by a hurricane or severe thunderstorm non-perishable food, water and blankets should be available for an extended stay.

6.0 Teammates stranded at any office by a hurricane should congregate in the predetermined place of safety and remain there until it is safe to evacuate or the danger has passed.

7.0 Hurricanes are likely to develop from April through November.

8.0 Offices affected by hurricanes should establish a team to ensure the physical structure is protected to the extent possible and to ensure each Teammate is afforded ample time to evacuate the area with his/her family as directed by the Governor or local disaster planning organization.

9.0 No Teammate will be allowed to voluntarily remain at the office when an evacuation order has been given.

10.0 Every office should have a NOAA Weather Radio located in the building. When the National Weather Service activates their weather emergency notifications, this radio has a warning alarm tone and battery back-up and will broadcast the weather emergency.

- 10.1 Hurricane Emergency Instructions (Appendix D)

## Rule 512 . . . . . Hazardous Chemical Releases – Outside the Building

1.0 Chemicals are classified based upon how dangerous they are.

- 1.1 Carcinogens are chemicals which have been determined to cause cancer.
- 1.2 Corrosive chemicals are those that cause visible destruction of/or irreversible alterations in living tissue by chemical action at the site of contact.
- 1.3 Highly toxic chemicals are those with various lethal doses based on kilograms of body weight.
- 1.4 Toxic chemicals are similar to highly toxic chemicals but less lethal.
- 1.5 Irritants are chemicals which cause a reversible inflammatory effect on living issue by chemical action at the site of contact.
- 1.6 Sensitizers are chemicals that cause people to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

2.0 Under the provisions of the Emergency Planning & Community Right-To-Know Act (EPCRA) of 1986, local emergency planning committees are required, and have been collecting, chemical information for their communities. They use this information to develop community emergency plans.

3.0 The most likely source of notification about an outside chemical spill will come from the company having the spill/leak or the local fire or police departments.

4.0 If Teammates are notified of an outside chemical spill/leak that affects the building, they should not leave until cleared to do so. If an evacuation is needed, it will be handled by the local fire or police departments.

5.0 If Teammates are required to evacuate the building, they will most likely be directed to a temporary shelter. Teammates should drive directly to that shelter location and not towards the area of the chemical leak/spill.

6.0 If Teammates are notified of a chemical leak/spill that affects the building, the air handling systems should be shut off until the building is evacuated or until the danger has passed.

7.0 Chemical Leaks/Spills outside the Building Emergency Instructions (Appendix E)

## Rule 513 . . . . . Hazardous Chemical Releases – Inside the Building

1.0 There is a potential for a hazardous chemical spill in some of Team Fishel's shops and warehouses.

- 1.1 Team Fishel stocks a number of chemicals such as brake cleaning products, household cleaning products and marking paints.
- 1.2 Most of these products are flammable. The spills could come about via an individual, small container leaking, or a pallet of the materials being dropped or otherwise damaged.

2.0 If a small container is damaged it could most likely be cleaned up without any type of evacuation necessary.

- 2.1 If a larger amount of these chemicals were damaged, the safest course of action would be to have the fire department respond to take care of spill containment and cleanup.
- 2.2 This would dictate a building evacuation.

3.0 If a large chemical spill occurs, the Receptionist must be notified immediately.

- 3.1 He/she will use the intercom to notify all Teammates of the spill and of the necessity to evacuate the building.
- 3.2 He/she will also call 911 to report the spill to the fire department.

4.0 Chemical Leaks/Spills inside the Building Emergency Instructions (Appendix F)

## Rule 514 . . . . . Floods and Flash Floods

1.0 With the exception of fires, floods are the most common and widespread of all natural disasters. Any area can experience flooding after spring rains, heavy thunderstorms, or winter snow thaws.

2.0 Most floods develop slowly over a period of days. Flash floods, however, are like walls of water that develop in a matter of minutes. Flash floods are caused by dam failures or intense storms. Small creeks, gullies, dry streambeds, ravines, culverts, and low-lying ground frequently flood quickly.

3.0 The National Weather Service issues two types of flash flood advisories:

- 3.1 A Flash Flood Watch is issued when heavy rains are occurring or are expected to occur which may result in flash flooding in certain areas.

3.2 A Flash Flood Warning is issued when flash flooding is occurring or imminent for certain streams or designated areas. Immediate action should be taken by those threatened.

4.0 Each office should have a NOAA Weather Radio located in the building. When the National Weather System activates their emergency weather notifications, this radio has a warning alarm tone and battery back-up and will broadcast the weather emergency.

5.0 Most of Team Fishel's locations are not located in a flood plain, but floods could occur via nearby drainage culverts in the area or when storm water drainage sewers are unable to hold and carry rain run-off away.

6.0 The most likely notification of a flooding problem would come from the National Weather Service warnings, or by personal observations.

7.0 If a Teammate becomes aware of a flood or flash flood problem, he/she should notify the Receptionist immediately. He/she will use the intercom to notify all Teammates of the emergency. He/she will also call 911 to notify the Fire Department of the emergency.

8.0 Floods & Flash Floods Emergency Instructions (Appendix G)

## Rule 515 . . . . . Bomb Threats

1.0 Bomb threats are usually received over the telephone. The most likely recipient would be the Receptionist. The possibility exists the threat could come in to a direct office line.

2.0 The most likely source of a bomb threat would be from a disgruntled current or ex-Teammate. Another likely source are teenagers/pranksters, separated or ex-spouses, or unhappy claimants.

3.0 The Teammate receiving the bomb threat should complete the attached Bomb Threat Checklist (See Appendix I) during the call or as soon as possible after receiving the call.

4.0 Since bomb threats rarely occur the building should be evacuated immediately. If bomb threats become more routine, a decision should be made by the President, Executive Vice President, the Safety Director or Area Manager about building evacuation.

5.0 Upon receiving a bomb threat, the Receptionist should be notified immediately. He/she will use the intercom system to notify all Teammates of the threat, and of the actions to be taken. The Receptionist will also call 911 to notify the local fire and/or police department of the threat. (See Appendix H)

6.0 It is most likely that either the local fire or police department will respond to the bomb threat. If they search the building, they will ask for Teammates familiar with the building and building items to accompany them. If a suspicious package is found, they will notify the local bomb squad who will remove the item for inspection and/or detonation. Teammate should not touch or move any suspicious package or item.

## Rule 516 . . . . . Building Security

1.0 Because most of Team Fishel's office facilities are open to the public, the possibility exists that current or former Teammates, customers, or strangers who are upset or disturbed may enter through the front doors. For this reason, building security is an important issue.

2.0 Should a current or former Teammate, a customer, or a stranger who is upset or disturbed enter the building, the Receptionist should activate a panic alarm immediately if one is available.

3.0 If the upset or disturbed person cannot be calmed or brought under control:

- 3.1 Call 911 for police assistance.
- 3.2 Notify the Office Manager or Area Manager.

4.0 Under no circumstances should anyone not invited to a Team Fishel facility be allowed to roam the building without a Teammate escort. Persons who have appointments should be met in the reception area by the Teammate they are here to see, or by their assistants.

5.0 Building Security (See Appendix J)

## Rule 517 . . . . . Lightning Policy

1.0 Weather will be monitored daily by the crew leader on each site utilizing “My Lightning Tracker & Alerts” app or one equivalent to alert teammates of upcoming storms containing lightning strikes..

2.0 If lightning strikes within a 20 mile radius, the Teammate in charge must evaluate weather conditions and make a decision to continue with work or terminate work tasks completely.

3.0 Once lightning strikes within a 10 mile radius of a jobsite, Teammates must go to the location identified by the Foreman to wait out the storm. Once Teammates are in a safe location, Foreman will continue to monitor storm and determine when it is safe to return to work.

4.0 Once determined safe to return back to work, revisit the JHA to determine if conditions have changed.

## Rule 518 . . . . . Workplace Violence Prevention Plan

### Introduction

Workplace violence is becoming an increasingly common concern across the United States. It can occur in any work setting and can have serious physical and emotional effects on Teammates, their families, and the Company as a whole. Team Fishel is committed to creating and maintaining a safe workplace for its Teammates, customers, suppliers, business partners and visitors. This Workplace Violence Prevention Plan (WVPP) will serve as a guide to further the efforts in maintaining a safe and healthy workplace.

### Policy Statement

It is the policy of Team Fishel that there will be zero tolerance of violence in the workplace. Workplace violence is defined as “any act of physical violence, harassment, intimidation, or other threatening behavior that occurs at a place of employment or in association with that employment.” This includes but is not limited to any act of violence by a Teammate, customer, supplier, business partner, or visitor.

The purpose of this policy is to advise and explain to every Teammate our zero-tolerance policy and the behavior expected of all Teammates. All Teammates share in the responsibility of maintaining a workplace free of threats and violence. Teammates are required to conduct themselves in a professional manner at all times and treat all those that they interact with our guiding principles of FISHELOSOPHY (respect, honesty, integrity, commitment, honor and trust).

Team Fishel will not tolerate anyone engaging in acts of physical intimidation, threats, inappropriate remarks, or violence of any kind. Any person who makes threats, exhibits threatening behavior, or engages in violent acts toward a co-worker, regardless of where those acts occur, and/or while representing Team Fishel may be removed from the premises and suspended from work pending the outcome of an investigation. Threats, threatening behavior, and/or other acts of violence toward a fellow Teammate, or while representing Team Fishel is a violation of this policy. Threats include, but are not limited to, person-to-person verbal threats, threats made via the telephone, social media, fax, electronic or conventional mail, or any other communication medium, including social media. Workplace violence does not include lawful acts of self-defense or defense of others. This policy does not include acts of violence that may occur on a Teammate teleworking from a location of the Teammate's own choosing that is outside the control of Team Fishel.

Violations of this policy will lead to disciplinary action that may include dismissal, seeking restraining orders, and/or reporting to law enforcement. In addition, if the source of such inappropriate behavior is a member of the public, the response may also include barring the person(s) from Company property or jobsites, termination of business relationships with that individual, and/or prosecution of the person(s) involved.

Teammates are responsible for immediately notifying their manager/supervisor, the Human Resources Department, and/or Safety Department of any threats which they have witnessed, received, or been told that another person has witnessed or received. Teammates must report any behavior witnessed which is regarded as threatening or violent when that behavior is job-related or might be carried out on Company property, jobsites or in connection with Company employment.

Adherence to this policy is required of all Teammates of Team Fishel. It is the responsibility of all managers/supervisors to encourage their Teammates to report any suspected violations of this policy. Managers who have knowledge of a suspected violation of this policy shall cause the situation to be documented and fully investigated. It is required that department managers seek the advice and assistance of the Senior Management, Human Resources and/or Safety Departments when investigating and documenting suspected violations of this policy.

**Program Objectives**

The objective of this program is to prevent workplace violence and provide a safe and secure work environment for all Teammates. This program aims to create a zero-tolerance culture towards workplace violence by promoting awareness, preventing potential incidents, and responding effectively to any reported incidents.

**Accessibilty**

The Workplace Violence Prevention Plan (WVPP) will be available and easily accessible to Teammates, at all times. The WVPP will be in effect at all times and in all areas of employment. The WVPP will be adapted, as appropriate, for all locations of employment as necessary to maintain the effectiveness of the program.

**Roles and Responsibilty**

The Vice President of Safety and Human Resources will serve as the WVPP Administrator for the Company. They have the authority and responsibility of implementing the provisions of this program for the Company. All managers, supervisors and Teammates are responsible for implementing and maintaining the WVPP in their work areas and for answering Teammate questions about the program.

The Area Manager, with support from the corporate Human Resources and Safety Team is responsible for implementing the WVPP at the individual divisional offices.

All Teammates are responsible and accountable for following the Company WVPP. Teammates must report any acts of physical intimidation, threats, inappropriate remarks, or violence of any kind to their immediate supervisor, manager, the Human Resources or Safety Departments or any other company manager to whom they feel comfortable communicating this.

Managers, supervisors, and Teammates will comply with work practices that are designed to make the workplace more secure and will not engage in threats or physical actions which create a security hazard for others in the workplace. The company WVPP Administrator will ensure the following:

- Initial training on the WVPP is provided to all Teammates.
- Training on the WVPP is provided to all new Teammates as part of new Teammate orientation.
- The WVPP is posted in a conspicuous place where it can be accessed and reviewed by all Teammates via the Teammate Portal.
- The effectiveness of the WVPP is evaluated.
- Teammates who perform work practices which promote security in the workplace are recognized.
- Coaching and correction to Teammates who fail to comply with the WVPP is provided.
- Teammates understand their duty and obligation to consider all prohibited conduct or incidents of workplace violence as serious and are advised to seek assistance as soon as early warning signs are identified.

**Hazard Assessment**

The safety team, both corporate and area Safety Coordinators will be responsible with helping to continuously improve our WVPP and the overall safety and security of our workplace at Team Fishel. The duties of this team include:

- Assessing the vulnerability to workplace violence at Company facilities and projects.
- Identifying workplace violence/security issues and making recommendations to management and Teammates on prevention measures.
- Performing workplace hazard assessment for workplace security in the form of record keeping and review, periodic workplace security inspections, and a workplace survey.
- Developing Teammate training programs in violence prevention and plans for responding to acts of violence.
- Auditing the overall Workplace Violence Prevention Program.

# APPENDIX A:
# FIRE EVACUATION - INSTRUCTIONS

1. IF A FIRE IS DISCOVERED, THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE: "WE HAVE A FIRE IN THE (LOCATION IF KNOWN). PLEASE EVACUATE THE BUILDING !!" THIS WILL BE REPEATED AS MANY TIMES AS POSSIBLE.

2. IF POSSIBLE, CLOSE DOORS IN THE FIRE AREA.

3. THE PRIMARY EVACUATION ROUTE FOR ANY SECOND FLOOR AREA IS: _____

   _____.

4. THE PRIMARY EVACUATION ROUTE FOR THE FIRST FLOOR IS: _____

   _____.

5. SECONDARY EVACUATION ROUTES ARE:

   1ST FLOOR:_____.

   2ND FLOOR:_____.

6. THE WAREHOUSE EVACUATION ROUTE IS:

   _____.

7. THE SHOP EVACUATION ROUTE IS:

   _____.

8. THE EVACUATION TEAM MEMBERS WILL:

   A. MAKE SURE ALL TEAMMATES ARE AWARE OF THE EMERGENCY.
   B. ASSIGN SOMEONE TO ASSIST ANY DISABLED TEAMMATES WITH THE EVACUATION.
   C. DIRECT TEAMMATES TO THE SAFE EVACUATION ROUTES.
   D. CHECK ALL OFFICES, STORAGE ROOMS, AND BATHROOMS TO MAKE SURE THEY ARE ALL CLEAR.
   E. ONCE EVACUATION IS COMPLETED, TAKE A HEAD COUNT OF THE TEAMMATES WHO WORK ON YOUR FLOOR.
   F. CALL THE CORPORATE OFFICE, NOTIFYING THEM OF THE EVACUATION. ASK THEM TO NOTIFY THE OTHER AREA OFFICES.

9. IF YOUR CLOTHES ARE ON FIRE, STOP, DROP & ROLL !!

10. IF YOU HAVE TO PASS THRU A CLOSED DOOR, TOUCH THE DOOR FIRST WITH THE BACK OF YOUR HAND. IF IT'S HOT, DO NOT OPEN DOOR !!

11. SMOKE KILLS MORE PEOPLE THAN FIRE DOES. IF YOU SEE SMOKE, USE THE SECONDARY ESCAPE ROUTE. IF YOU HAVE TO GO THRU A SMOKE-FILLED AREA, CRAWL ON YOUR HANDS & KNEES TO THE EXIT !!

12. NO MATTER WHICH EVACUATION ROUTE YOU USE; MEET ON OR AT THE _____ _____ SO A HEAD COUNT CAN BE TAKEN.

13. THE BASIC FIRST AID TEAM SHOULD BEGIN TREATING MINOR INJURIES, IF ANY.

14. DO NOT RE-ENTER THE BUILDING UNTIL TOLD TO DO SO BY THE FIRE DEPARTMENT.

15. DO NOT LEAVE THE AREA UNTIL RELEASED BY YOUR SUPERVISOR.

EVACUATION TEAM:

_____

_____

_____

_____

FIRST AID TEAM:

_____

_____

_____

_____

MEETING PLACE:

_____

_____

_____

_____

# APPENDIX B:
# TORNADO EMERGENCY - INSTRUCTIONS

1. IF A TORNADO WARNING IS ISSUED OR IF A TORNADO IS SIGHTED THE RECEPTIONIST WILL USE THE INTERCOM AND ANNOUNCE, "WE HAVE A TORNADO WARNING, PLEASE GO TO THE DESIGNATED SAFE AREAS !!" THIS WILL BE REPEATED AS MANY TIMES AS POSSIBLE.

2. THE DESIGNATED SAFE AREAS ARE:

   A. _____.
   B. _____.
   C. _____.
   D. _____.

   STAY AWAY FROM GLASS WINDOWS !!!

   DO NOT LEAVE THE BUILDING !!!

3. THE EVACUATION TEAM MEMBERS WILL:

   A. MAKE SURE ALL TEAMMATES ARE AWARE OF THE EMERGENCY.
   B. ASSIGN SOMEONE TO ASSIST ANY DISABLED TEAMMATES TO THE SAFE AREAS.
   C. DIRECT TEAMMATES TO THE DESIGNATED SAFE AREAS.
   D. ONCE THE TORNADO HAS PASSED, BEGIN BUILDING EVACUATION PROCEDURES.
   E. ONCE EVACUATION IS COMPLETED, TAKE A HEAD COUNT OF THE TEAMMATES WHO WORK ON YOUR FLOOR.
   F. CALL THE CORPORATE OFFICE AND NOTIFY THEM OF THE EVACUATION. ASK THEM TO NOTIFY THE OTHER AREA OFFICES.

4. THE PRIMARY EVACUATION ROUTE FOR THE BUILDING IS:

   _____.

5. THE PRIMARY EVACUATION ROUTE FOR THE SHOP OR WAREHOUSE IS:

   _____.

6. THE SECONDARY EVACUATION ROUTES ARE:

_____.

_____.

_____.

_____.

7. AFTER THE ALL-CLEAR IS GIVEN, MEET AT THE _____

_____ SO A HEAD COUNT CAN BE TAKEN.

8. IF THERE ARE INJURIES OR BUILDING DAMAGE, DIAL 911 USING A CELLULAR PHONE.

9. THE BASIC FIRST AID TEAM SHOULD BEGIN TREATING MINOR INJURIES, IF ANY.

10. DO NOT RE-ENTER THE BUILDING UNTIL TOLD TO DO SO BY THE SAFETY DIRECTOR AND/OR EMERGENCY RESPONSE PERSONNEL.

11. DO NOT LEAVE THE AREA UNTIL RELEASED BY YOUR SUPERVISOR.

# APPENDIX C:
# BLIZZARD EMERGENCY - INSTRUCTIONS

1. SHOULD A BLIZZARD OR A SEVERE BLIZZARD WARNING BE ISSUED, A COMPANY OFFICER OR THE AREA MANAGER SHOULD BE INFORMED IMMEDIATELY. THEY WILL DETERMINE IF THE OFFICE WILL CLOSE EARLY.

2. UNTIL A DETERMINATION IS MADE, THE _____ ROOM WILL BE USED AS A BASE OF EMERGENCY OPERATIONS. AS LONG AS POWER IS AVAILABLE, THE WEATHER CHANNEL SHOULD BE MONITORED ON TV. IF OTHER AREA OFFICES ARE IN THE PATH OF THE BLIZZARD, CALLS SHOULD BE MADE TO DETERMINE THE TIMING OF THE STORM.

3. IF IT IS DECIDED TO CLOSE EARLY, THE RECEPTIONIST SHOULD BE NOTIFIED, AND HE/SHE WILL USE THE INTERCOM TO ANNOUNCE: "WE HAVE A BLIZZARD OR A SEVERE BLIZZARD WARNING. THE OFFICE WILL CLOSE AT (INDICATE TIME)."

4. DURING THE WINTER MONTHS TEAMMATES IN AFFECTED AREAS SHOULD HAVE NON-PERISHABLE FOOD, WARM CLOTHING, BLANKETS AND A SHOVEL IN THEIR CAR/TRUCKS. A TEAMMATE SHOULD ALWAYS KEEP HIS/HER GAS TANK AT LEAST HALF-FULL.

5. BEFORE LEAVING THE OFFICE, TEAMMATES SHOULD WRITE DOWN THE ROUTE THEY WILL TAKE TO GET HOME AND GIVE IT TO ONE OF THE EVACUATION TEAM MEMBERS. UPON ARRIVING HOME, IF PHONE SERVICE IS STILL AVAILABLE, THE EVACUATION TEAM MEMBERS SHOULD CALL THE INDIVIDUAL TEAMMATES WHO GAVE THEM THEIR ROUTE HOME, MAKING SURE THEY ARRIVED SAFELY. IF THEY ARE LONG OVERDUE, THE LOCAL POLICE DEPARTMENT SHOULD BE CONTACTED TO REPORT THE TEAMMATE'S ABSENCE & THE ROUTE THEY TOOK TO GET HOME.

6. IF TEAMMATES BECOME STRANDED IN THE OFFICE, THEY SHOULD ASSEMBLE IN A PRE-DETEMINED PLACE. AS LONG AS POWER IS AVAILABLE, SUFFICIENT HEAT AND WATER SHOULD NOT BE A PROBLEM. IF NEEDED, BLANKETS WILL BE STORED IN THE WAREHOUSE.

7. IF PHONE SERVICE REMAINS AVAILABLE, NOTIFY SPOUSES, CHILDREN, RELATIVES, ETC. OF THE EMERGENCY AND OF YOUR LOCATION.

8. AFTER A BLIZZARD PASSES THRU, IT CAN BE SEVERAL DAYS BEFORE ROADS ARE PASSABLE. TEAMMATES WITH 4-WHEEL DRIVE VEHICLES MAY BE ASSIGNED TO EVACUATE TEAMMATES WHO ARE STRANDED AT HOME.

# APPENDIX D:
# HURRICANE EMERGENCY - INSTRUCTIONS

1. SHOULD A HURRICANE OR A SEVERE TROPICAL STORM WARNING BE ISSUED, THE PRESIDENT OR EXECUTIVE VICE PRESIDENT SHOULD BE INFORMED IMMEDIATELY. THEY WILL COORDINATE WITH THE LOCAL AREAS AND THE OPERATING VICE PRESIDENT WHEN THE OFFICES WILL CLOSE.

2. AS LONG AS POWER IS AVAILABLE, THE WEATHER CHANNEL SHOULD BE MONITORED ON TV. IF OTHER AREA OFFICES ARE IN THE PATH OF THE HURRICANE, CALLS SHOULD BE MADE TO DETERMINE THE TIMING OF THE STORM.

3. IF A DECISION IS MADE TO CLOSE AN OFFICE, THE RECEPTIONIST SHOULD BE NOTIFIED, AND WILL USE THE INTERCOM TO ANNOUNCE, "WE HAVE A HURRICANE OR A TROPICAL STORM WARNING. THE OFFICES WILL CLOSE AT (INDICATE TIME)."

4. DURING HURRICANE SEASON TEAMMATES SHOULD HAVE NON-PERISHABLE FOOD, EXTRA CLOTHING, BLANKETS, AND WATER IN THEIR CARS/TRUCKS. TEAMMATES SHOULD ALWAYS KEEP THEIR GAS TANKS AT LEAST HALF-FULL.

5. BEFORE LEAVING THE OFFICE, TEAMMATES SHOULD WRITE DOWN THE ROUTE THEY WILL TAKE TO GET HOME AND GIVE IT TO ONE OF THE EVACUATION TEAM MEMBERS. UPON ARRIVING HOME, IF PHONE SERVICE IS STILL AVAILABLE, THE EVACUATION TEAM MEMBERS SHOULD CALL THE INDIVIDUAL TEAMMATES WHO GAVE THEM THEIR ROUTE HOME, MAKING SURE THEY ARRIVED SAFELY. IF THEY ARE LONG OVERDUE, THE LOCAL POLICE DEPARTMENT SHOULD BE CONTACTED TO REPORT THE TEAMMATE'S ABSENCE & THE ROUTE THEY TOOK TO GET HOME.

6. IF TEAMMATES BECOME STRANDED IN THE OFFICE, THEY SHOULD ASSEMBLE AS DIRECTED BY THEIR EVACUATION TEAM. AS LONG AS POWER IS AVAILABLE, SUFFICIENT AIR AND WATER SHOULD NOT BE A PROBLEM. IF NEEDED, FOOD AND WATER WILL BE STORED IN THE WAREHOUSE.

7. IF PHONE SERVICE REMAINS AVAILABLE, NOTIFY SPOUSES, CHILDREN, RELATIVES, ETC. OF THE EMERGENCY AND OF TEAMMATES' LOCATION.

8. AFTER A HURRICANE PASSES THRU, IT CAN BE SEVERAL DAYS BEFORE ROADS ARE PASSABLE. TEAMMATES WITH 4-WHEEL DRIVE VEHICLES MAY BE ASSIGNED TO EVACUATE TEAMMATES WHO ARE STRANDED AT HOME.

9. IF ANY OFFICE HAS BEEN FORCED TO REMAIN CLOSED DUE TO STRUCTURAL OR CATASTROPHIC DAMAGE, THE OPERATING VICE PRESIDENT WILL ARRANGE FOR A TEMPORARY LOCATION FROM WHICH TO CONDUCT BUSINESS.

# APPENDIX E:
# CHEMICAL LEAKS/SPILLS OUTSIDE THE BUILDING EMERGENCY - INSTRUCTIONS

1. ONCE WE ARE NOTIFIED THAT A CHEMICAL LEAK/SPILL HAS OCCURRED OUTSIDE OUR BUILDING THAT MAY AFFECT US, THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE, "THE (NAME OF COMPANY) HAS HAD A CHEMICAL LEAK/SPILL. PLEASE DO NOT LEAVE THE BUILDING UNTIL TOLD TO DO SO."

2. THE AIR HANDLING SYSTEMS WILL IMMEDIATELY BE SHUT OFF.

3. TEAMMATES SHOULD NOT CONGREGATE IN ONE PLACE, BUT SHOULD REMAIN AT THEIR WORK AREAS.

4. AN EVACUATION ORDER WILL NOT HAPPEN UNLESS THE LOCAL FIRE OR POLICE DEPARTMENTS BELIEVE THERE IS SUFFICIENT TIME TO EVACUATE SAFELY. IF ORDERED TO EVACUATE THE BUILDING, THE FIRE OR POLICE DEPARTMENT WILL MOST LIKELY TELL TEAMMATES WHICH SHELTER TO REPORT TO OR IN WHICH DIRECTION TO PROCEED.

5. IF AN EVACUATION ORDER COMES IN, THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE, "WE HAVE BEEN ORDERED TO EVACUATE THE BUILDING BY THE (NAME OF AGENCY). PLEASE REPORT TO THE DESIGNATED SHELTER (NAME AND LOCATION OF SHELTER)." THIS WILL BE REPEATED AS MANY TIMES AS POSSIBLE.

6. TEAMMATES SHOULD EXIT THE BUILDING VIA THE SAME EXIT ROUTES AS DESIGNATED FOR FIRES.

7. THE EVACUATION TEAMMATES WILL:

   A. MAKE SURE ALL TEAMMATES ARE AWARE OF THE EMERGENCY.
   B. ASSIGN SOMEONE TO ASSIST ANY DISABLED TEAMMATES WITH THE EVACUATION.
   C. DIRECT ALL TEAMMATES TO THE DESIGNATED SHELTER.
   D. CHECK ALL OFFICES, STORAGE ROOMS, AND BATHROOMS TO MAKE SURE THEY ARE ALL CLEAR.
   E. MAKE SURE ALL COMPUTERS, ELECTRICAL APPLIANCES AND LIGHTS ARE TURNED OFF.
   F. CALL THE CORPORATE OFFICE TO INFORM THEM OF THE EVACUATION. ASK THEM TO NOTIFY ALL OTHER AREA OFFICES.
   G. SET THE ALARM AND LOCK THE BUILDING UPON LEAVING.
   H. AFTER ARRIVAL AT THE DESIGNATED SHELTER, TAKE A HEAD COUNT OF TEAMMATES.

8. DO NOT RE-ENTER THE AREA OR THE BUILDING UNTIL TOLD TO DO SO BY THE EMERGENCY RESPONSE PERSONNEL.

# APPENDIX F:
# CHEMICAL LEAKS/SPILLS – INSIDE THE BUILDING
# EMERGENCY - INSTRUCTIONS

1. IF A LARGE CHEMICAL LEAK/SPILL IS DISCOVERED, NOTIFY THE RECEPTIONIST IMMEDIATELY !!

2. THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE, "WE HAVE A LARGE CHEMICAL LEAK/SPILL IN (STATE LOCATION OF SPILL), PLEASE EVACUATE THE BUILDING." THIS WILL BE REPEATED AS MANY TIMES AS POSSIBLE.

3. THE RECEPTIONIST WILL CALL 911, REPORTING THE LEAK/SPILL TO THE LOCAL FIRE DEPARTMENT.

4. TEAMMATES SHOULD EXIT THE BUILDING VIA THE SAME ROUTE AS DESIGNATED FOR FIRES.

5. THE EVACUATION TEAM MEMBERS WILL:
   - A. MAKE SURE ALL TEAMMATES ARE AWARE OF THE EMERGENCY.
   - B. ASSIGN SOMEONE TO ASSIST ANY DISABLED TEAMMATES WITH THE EVACUATION.
   - C. DIRECT TEAMMATES TO THE SAFE EVACUATION ROUTES.
   - D. CHECK ALL OFFICES, STORAGE ROOMS, AND BATHROOMS TO MAKE SURE THEY ARE ALL CLEAR.
   - E. ONCE THE EVACUATION IS COMPLETED, TAKE A HEAD COUNT OF TEAMMATES.

6. THE BASIC FIRST AID TEAM MEMBERS WILL:
   - A. TAKE THE FIRST AID KITS FROM THEIR STORAGE AREAS.
   - B. BEGIN TO ADMINISTER BASIC FIRST AID TO TEAMMATES IF NEEDED.

7. NO MATTER WHICH EVACUATION ROUTE YOU USE, MEET _____SO A HEAD COUNT CAN BE TAKEN.

8. DO NOT RE-ENTER THE BUILDING UNTIL TOLD TO DO SO BY THE FIRE DEPARTMENT OR SPILL CLEAN-UP TEAM.

# APPENDIX G:
# FLOODS & FLASH FLOODS EMERGENCY - INSTRUCTIONS

1. SHOULD A FLOOD OR FLASH FLOOD BE DISCOVERED IN THE AREA, NOTIFY THE RECEPTIONIST IMMEDIATELY.

2. THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE, "THERE IS A FLOOD OR FLASH FLOOD WARNING IN THE AREA OF OUR BUILDING. PLEASE ASSEMBLE IN THE (INDICATE LOCATION." THE RECEPTIONIST WILL CALL 911 TO NOTIFY THE LOCAL FIRE . . . . DEPARTMENT OF THE EMERGENCY.

3. IF THERE IS SUFFICIENT TIME, ALL COMPUTER EQUIPMENT AND APPLIANCES ON THE 1ST FLOOR SHOULD BE TURNED OFF. ANY IMPORTANT RECORDS SHOULD BE MOVED TO THE 2ND FLOOR.

4. AS LONG AS POWER IS AVAILABLE, SUFFICIENT HEAT/AIR AND WATER SHOULD NOT BE A PROBLEM. A WEATHER CHANNEL SHOULD BE MONITORED IF POSSIBLE.

5. TEAMMATES SHOULD NOT LEAVE THE BUILDING.

6. IF PHONE SERVICE REMAINS AVAILABLE, NOTIFY SPOUSES, CHILDREN, RELATIVES, ETC. OF THE EMERGENCY.

# APPENDIX H:
# BOMB THREATS EMERGENCY - INSTRUCTIONS

1. THE PERSON RECEIVING THE BOMB THREAT SHOULD COMPLETE THE BOMB THREAT CHECKLIST (APPENDIX I) DURING OR AS SOON AS POSSIBLE AFTER RECEIVING THE THREAT.

2. IF THE RECEPTIONIST DID NOT RECEIVE THE PHONE THREAT, NOTIFY HIM/HER IMMEDIATELY. THE RECEPTIONIST WILL USE THE INTERCOM TO ANNOUNCE, "WE HAVE RECEIVED A BOMB THREAT. PLEASE EVACUATE THE BUILDING."

3. TEAMMATES SHOULD EXIT THE BUILDING VIA THE SAME ROUTES AS DESIGNATED FOR FIRE.

4. THE EVACUATION TEAM MEMBERS WILL:
   - A. MAKE SURE ALL TEAMMATES ARE AWARE OF THE EMERGENCY.
   - B. ASSIGN SOMEONE TO ASSIST ANY DISABLED TEAMMATES WITH THE EVACUATION.
   - C. DIRECT TEAMMATES TO THE SAFE EVACUATION ROUTES.
   - D. CHECK ALL OFFICES, STORAGE ROOMS, AND BATHROOMS TO MAKE SURE THEY ARE ALL CLEAR.
   - E. ONCE EVACUATION IS COMPLETE, TAKE A HEAD COUNT OF TEAMMATES.

6. NO MATTER WHICH EVACUATION ROUTE YOU USE, MEET _____ SO A HEAD COUNT CAN BE TAKEN.

7. DO NOT RE-ENTER THE BUILDING UNTIL TOLD TO DO SO BY THE LOCAL FIRE DEPARTMENT, POLICE DEPARTMENT, OR THE BOMB SQUAD.

# APPENDIX I:
# BOMB THREAT CHECKLIST

**BE CALM AND COURTEOUS.**

**LISTEN!! DO NOT INTERRUPT THE CALLER !!**

NAME OF TEAMMATE RECEIVING CALL: _____

DATE: _____ TIME: _____

CALLER: MALE _____ FEMALE _____ ADULT _____ JUVENILE _____

APPROX AGE _____ RACE _____ ACCENT _____

FAMILIAR WITH BUILDING _____

FAMILIAR WITH TEAMMATES _____

CHARACTERISTICS OF CALLERS VOICE_____

_____

BACKGROUNDSOUNDS_____

SPECIFICS ABOUT BOMB: _____

_____

_____

KEEP CALLER TALKING IF HE/SHE IS AGREEABLE TO FURTHER CONVERSATION.

ADDITIONAL QUESTIONS:

WHERE IS THE BOMB? _____

WHEN WILL THE BOMB GO OFF? _____

WHAT KIND OF BOMB IS IT? _____

HOW DO YOU KNOW ABOUT THE BOMB? _____

WHY DID YOU PLANT A BOMB AT FISHEL ? _____

_____

WHO ARE YOU TRYING TO HURT ? _____

# APPENDIX J:
# BUILDING SECURITY

1. IF A CURRENT OR FORMER TEAMMATE, CUSTOMER, OR STRANGER WHO IS UPSET OR DISTURBED ENTERS THE BUILDING, ACTIVATE THE PANIC ALARM IMMEDIATELY IF AVAILABLE.

2. DO NOT CALL AN OFFICER FOR ASSISTANCE.

3. IF THE UPSET OR DISTURBED TEAMMATE, CUSTOMER OR STRANGER CANNOT BE CALMED OR BROUGHT UNDER CONTROL:

   A. CALL 911 FOR POLICE ASSISTANCE.
   B. NOTIFY _____ OF THE PROBLEM. HE/SHE WILL ASK THAT THE CEO, PRESIDENT, THE EXECUTIVE VICE PRESIDENT, OR OTHER OFFICER LEAVE THE BUILDING BY AN ALTERNATE DOOR UNTIL THE SITUATION IS CONTROLLED.

4. UNINVITED AND UNAUTHORIZED INDIVIDUALS SHOULD NOT BE ALLOWED TO ROAM THE BUILDING WITHOUT A TEAMMATE ESCORT. INDIVIDUALS WHO HAVE APPOINTMENTS SHOULD BE MET IN THE RECEPTION AREA BY THE TEAMMATE THEY ARE HERE TO SEE, OR BY AN ASSISTANT.

5. THE LAST TEAMMATE LEAVING THE BUILDING SHOULD ALWAYS SET THE ALARM AND KEY-LOCK THE DOOR. IF THE ALARM CANNOT BE SET CALL _____. LEAVE THE BUILDING, KEY-LOCKING THE REAR DOOR.

6. THE FIRST TEAMMATE ARRIVING AT THE BUILDING SHOULD ALWAYS TURN THE ALARM OFF. IF YOU HAVE TROUBLE WITH THE ALARM, NOTIFY THE ALARM COMPANY IMMEDIATELY. IF THE POLICE ARE DISPATCHED, BE PREPARED TO IDENTIFY YOURSELF AS A FISHEL TEAMMATE.

Evacuation Team:

1. _____
2. _____
3. _____
4. _____

First Aid Team

1. _____
2. _____
3. _____
4. _____

Outside Meeting Place:

1. _____
2. _____
3. _____

Primary Exit Routes

1. _____
2. _____
3. _____

4. Alternate Exit Routes:

1. _____
2. _____
3. _____
4. _____

Hurricane/Tornado Safe Room:

1. _____
2. _____
3. _____
4. _____

Emergency Response Location:

1. _____
2. _____

# APPENDIX K:
# WORKPLACE VIOLENCE

## TYPES OF WORKPLACE VIOLENCE

| | |
|---|---|
| **Type 1: Violence by Strangers** | Involves verbal threats, threatening behavior or physical assaults by an assailant who has no legitimate business relationship with the workplace. The assailant enters the affected workplace to commit a robbery or criminal act. Violence by strangers is responsible for the majority (nearly 80%) of fatal injuries related to workplace violence nationally. |
| **Type 2: Violence by customers or clients** | Involves verbal threats, threatening behavior or physical assaults by an assailant who either receives services from or is under the custodial supervision of the affected workplace or the victim. Assailants can be current or former customers or clients. Clients or customers may be "situationally" violent and are provoked when they become frustrated by delays or by the denial of services. In these cases, problem anticipation, appropriate training and other control measures deemed effective are the focus of prevention. |
| **Type 3: Violence by coworkers** | Involves verbal threats, threatening behavior or physical assaults by an assailant who has some employment-related involvement with the workplace, such as a current or former Teammate, supervisor, or manager. In committing a threat or assault, the individual may be seeking revenge for what is perceived as unfair treatment. |
| **Type 4: Violence by personal relations** | Involves verbal threats, threatening behavior or physical assaults by an assailant who, in the workplace, confronts an individual with whom he or she has or had a personal relationship outside of work. Personal relations include a current or former spouse, lover, relative, friend or acquaintance. The assailant's actions are motivated by perceived difficulties in the relationship or by psycho-social factors that are specific to the assailant. |

## RISK FACTORS

The most important aspects of preventing violence in the workplace are identification of risk factors as well as timely and appropriate intervention before a violent episode occurs. There are three (3) categories of risk factors for workplace violence. They include Environmental, Administrative and Behavioral risk factors. They are described as follows:

### Environmental Risk Factors

- Working in an environment where there is exchange of money with the public
- Working alone or in small numbers
- Working late at night or early morning
- Arriving to work in the early morning or late evening
- Being the first to arrive at work or the last to leave
- Working in high crime areas
- Working in community settings
- Exposure to unstable or volatile persons

**Administrative/Organizational Risk Factors**

- Not having a policy that addresses workplace violence
- Lack of awareness of the physical security needs of your place of employment
- Not recognizing or ignoring early warning signs
- Lack of procedures to address threats and threatening behavior
- Poor management of downsizings, terminations and accidents
- Punishing or terminating impaired or deviant Teammates without consideration for reprisal

**Behavioral/Interpersonal Risk Factors**

- Paranoid behavior.
- Increased demand of supervisor's time.
- Sudden and persistent complaining about being treated unfairly.
- Blaming of others for personal problems.
- Statement that he or she would like something bad to happen to supervisor or another coworker.
- Talking to oneself.
- Instability in family relationships.
- Financial problems combined with not receiving a raise or promotion.
- Sudden mood swings, depression, withdrawal.
- Refusal to accept criticism about job performance.
- Quiet seething, sullenness.
- Sudden increased absenteeism.
- Alcohol or drug abuse.
- Poor relationships with coworkers or management.
- Sudden change in behavior, deterioration in job performance.
- Sexually harassing or obsessing about a coworker: sending unwanted gifts, notes, unwanted calling, stalking.
- History of violent behavior.
- Previous threats, direct or indirect.
- Presenting and talking about reading material that is violent in nature.
- Sudden refusal to comply with rules or refusal to perform duties.
- Inability to control feelings, outbursts of rage, swearing, slamming doors, etc.

## PREVENTION OF WORKPLACE VIOLENCE

"Workplace violence prevention measures" are procedures and rules which are used to effectively reduce workplace violence hazards. The best way to organize these measures is to align them with the three (3) primary risk factors; Environmental, Administrative and Behavioral.

### Environmental Risk Factor Control Measures

Each designated work location will complete a physical security assessment. This assessment will identify weaknesses in the security measures at these locations and become the basis for the security plan.

To address these deficiencies, where possible:

1. Create physical separation of workers from customers, clients, and the general public where possible:
    - Specialized customer/client meeting rooms.
    - Bullet proof glass.

- Card-key, smart key and/or biometric access systems at doors and elevators.
- Closed circuit camera systems that allow Teammates to see who is trying to access the property prior to unlocking and/or allowing access.
- Other engineering controls.

2. Use technology to deter perpetrators and facilitate their identification and apprehension:
    - Closed-circuit cameras.
    - Alarms.
    - Card-key access systems.
3. Ensure adequate lighting of office areas, parking lots and walkways/paths.
4. Limit access to and egress from the workplace. This can be done by reducing the number of open entrances and minimizing available exits. This reduces the ease with which non-Teammates can gain access to work areas. In fixed facilities, this can be maintained by installing panic-bar doors locked from the outside only at access points other than public entrances.
5. Do not allow Teammates to work alone at company locations before or after normal work hours or on weekends (service call type duties may be an exception).
6. Use a buddy system when accessing vehicles at the end of the work day.
7. If necessary based on the physical security assessment, provide fulltime security guards on the property.
8. If necessary based on the physical security assessment, identify possible security consulting resources outside of the organization.

### Administrative/ Organizational Risk Factor Control Measures

Administrative control measures are less effective but are a critical component of the WVPP. The single most important part of the administrative approach to workplace violence is management's support of the policy and of those who are victims of violence both inside and outside of the company.

1. Workplace Violence Reporting and Tracking
    - All Teammates are required to report any incident or potential for workplace violence to their immediate supervisor, the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department. This includes any threats which they have witnessed, received, or been told that another person has witnessed or received.
    - Teammates must also report any behavior they have witnessed which is regarded as threatening or violent when that behavior is job related or might be carried out on Company property, jobsites or in connection with Company employment.
    - Adherence to this policy is required of all Company personnel. It is the responsibility of all managers to encourage their Teammates to report any suspected violations of this policy.
    - Managers who have knowledge of a suspected violation of this policy shall cause the situation to be documented and fully investigated. It is required that department managers seek the advice and assistance of the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department when investigating and documenting suspected violations of this policy.
    - All reports and incidents of workplace violence will be maintained in a database in order to provide trend analysis and potential issue identification.

2. Suggested Administrative Security Controls

- For office and jobsite environments, create a daily visitor log at the reception area that requires all Teammates to list any planned visitors they have for that day. The receptionist should reference this list when visitors arrive.
    - If the visitor is on the list, the receptionist can proceed as normal.
    - Any visitor not listed should be handled with caution.
    - The receptionist should first ask if the visitor has an appointment.
    - The receptionist should always inform the visitor that he or she does not know if the person they are here to see is in the building.
    - The receptionist should then call the Teammate and act as if he or she is leaving a voicemail when the Teammate answers (i.e., “Hi Jim, it looks like you are not at your desk. Bill Jones is here to see you. Call me at the front desk when you get this message”).
    - The receptionist should then ask the visitor to wait.
    - The Teammate can then determine if the visitor is safe to allow into the office.
    - If so, he or she can just call the receptionist back and proceed as normal.
    - If not, he or she can contact the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department to initiate the Crisis Plan.
    - The Teammate should then leave the building via an alternate route to avoid contact with the visitor.
    - Create a panic word or phrase that can be announced over the PA system that will alert Teammates to the danger but not tip off the perpetrator to the intent (i.e., “There are donuts in the lunchroom”).
    - Establish a buddy system for Teammates leaving the property during non-daylight hours.
    - Do not allow Teammates to work alone at night or on weekends without a buddy system.
    - Escort visitors; unsupervised movement within and between work areas is prohibited.

3. Disciplinary Actions

Violations of this policy will lead to disciplinary action that may include dismissal, arrest, and prosecution. In addition, if the source of such inappropriate behavior is a member of the general public, the response may also include barring the person(s) from Company property or jobsites, termination of business relationships with that individual seeking restraining orders, and/or reporting to law enforcement of the person(s) involved.

4. Termination Procedures

Management will treat Teammates faced with adverse administrative proceedings with respect and the Teammate will be treated fairly at all stages of the process. When there is a belief by management that the termination process may erupt into violence; all terminations will be completed by at least two (2) company management representatives and management may consider consulting with local law enforcement prior to the meeting.

5. Formal Procedures for Handling Grievances

Teammates will be educated on grievance procedures for reporting complaints of unfair treatment, discrimination or harassment; believe those procedures will be followed; and feel confident concerns will be addressed promptly and confidently.

6. Personal Counseling Through an Teammate Assistance Program

Family, marital, financial, and personal issues can have a profound impact on Teammates' work performance, as well as their social interaction at work. The Company's Teammate Assistance Program (EAP) provides Teammates with a free, easily accessible and confidential resource for addressing personal concerns.

When the Company becomes aware that an Teammate is being stalked, harassed, threatened, or abused and that the risk has or may come into the workplace, the threat will be subjected to the same evaluation procedure as any other violent threat, to assess the likelihood of violence and determine the best means of intervention.

***Other potential steps to assist the Teammate include:***

- Referring the Teammate for emotional, legal, or financial counseling, either through the company's own Teammate assistance structure or from outside practitioners, (e.g., battered women's shelter or similar programs).
- Ascertaining if the Teammate has sought or obtained a protective restraining court order against an abusive partner or other harasser.
- Adopting policies that will allow an abused worker time off for purposes such as going to court to seek a restraining order or appearing to testify at a criminal trial.
- Reviewing the Teammate's workspace and modifying it, if necessary, to make sure that a possible assailant cannot get there.
- Acting consistently with the Teammate's privacy rights and wishes as well as taking measures to inform other Teammates (security guards, secretaries, receptionists, and telephone operators, for instance) so that they can block an abuser's calls or make sure he or she is kept out of the workplace.

**Behavioral/ Interpersonal Risk Factor Control Measures**

The type and severity of response to an Teammate that is exhibiting aggressive behavior will vary depending upon the situation. It is important that Teammates understand how to appropriately deal with each type of situation and prevent the situation from escalating if possible.

1. General Rules for Engaging an Aggressive and/or Potentially Violent Person
    - Respond quietly and calmly, try to defuse the situation.
    - Do not take the behavior personally. Usually, the behavior has little to do with you, but you are used as a target in the situation.
    - Ask questions. Respectful concern and interest may demonstrate that aggression is not necessary.
    - Consider offering an apology. Even if you have done nothing wrong, an apology may calm the individual and encourage cooperation.
    - Make sure you are communicating clearly. In crisis, a person feels humiliated and wants respect and attention. Focus on areas of agreement to help resolve the concern.
    - Discreetly call for help at the earliest possible moment
    - Always position yourself so that there is a way out if you are in an enclosed area such as an office
    - Always move slowly
    - Remember, your personal safety is the most important factor in dealing with workplace violence

2. Response to Disruptive, Threatening or Violent Behavior
The following procedures will provide important information on how to better manage situations involving disruptive, threatening or violent behavior:

a) General response to disruptive behavior (no threats or weapons; does not seem dangerous)

- Calmly and firmly set limits such as “Please lower your voice. There will be no disruptions in this office”.
- Ask the individual to stop the behavior and warn that official action may be taken.
- If the disruption continues despite a warning, tell the individual that he/she must leave the property. State that if they do not leave, the police will be called.
- If the individual refuses to leave after being directed to do so, signal a co-worker to inform the Human Resources manager or highest available manager, contact the police via 911, and provide all necessary information.
- Continue attempts to persuade the individual to leave the property until police arrive.
- If local law enforcement is requested to remove a person from the property and/or to maintain order due to potential violence, the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department will be immediately notified of the situation.
- Upon request, a written report will be submitted to the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department.

b) General response to disruptive behavior (seems dangerous)

- If possible, find a quiet, safe place to talk, but do not isolate yourself with an individual you believe may be dangerous. Maintain a safe distance, do not turn your back, and attempt to have both you and the individual seated. Leave the door open and sit near the door. While the individual is moving, if possible, advise a co-worker of the situation.
- If possible, have a co-worker inform a manager, the WVPP Administrator, WVPP Committee, the Human Resources Department and/or Safety Department of the situation and contact the police via 911 and provide all necessary information.
- Use a calm, non-confrontational approach to defuse the situation. Indicate your desire to listen and understand the problem. Allow the person to describe the problem.
- Never touch the individual yourself or try to remove him/her from the area. Even a gentle push or holding a person’s arm may be interpreted as an assault by the individual who may respond with violence.
- Set limits to indicate the behavior needed to deal with the concern. “Please stop shouting (or using profanity) or I will have to ask you to leave.”
- Do not mention the police have been contacted if you fear an angry or violent response.
- If the situation escalates, find a way to excuse yourself, leave the room or area, get help and wait for the local authorities. An example of this is “You have raised some tough questions; I’ll consult my supervisor to see what we can do” or “I need I drink of water.”

c) Armed/Dangerous Intruder (Imminent Danger)

The following four (4) steps outline how to respond to either type of armed or dangerous intruder:

1) Get Out (Flee):
   - If you are able to evacuate the building safely, do so through the safest and nearest available exit.
   - Preferably, escape away from the intruder in the opposite direction as quickly as possible.
   - Continue to flee until you feel you are in a safe position or accompanied by law enforcement officials
   - DO NOT congregate outside of the office. This will create a situation where the threat may be able to inflict harm to a larger group of people

2) Call Out
   - If you are able to utilize the phone, call 911, describe the situation and give your location within the building.
   - If the armed/dangerous intruder is recognized by the receptionist, the receptionist will inform the occupants of the building by using the panic word or phrase.
   - If possible, alert co-workers nearby, but stay out of line of sight of the intruder.

3) Hide Out
   - If you are unable to evacuate the building, stay in your workspace. Turn off lights, radios, computers, etc. to give the appearance the location is empty.
   - Try to hide in a closet or under the desk
   - If possible, find a location (inside or outside of your workspace) that allows you to best barricade yourself from the intruder.
   - Turn off the ringer on your cell phone. A cell phone ring may give up your location to the intruder; especially if they are looking for a specific person and try to call them.

4) Take Out (Fight Back)
   - Only use this option if injury to you or other potential victims is certain. This option should not be used in a hostage situation where the intruder may not intend to harm anyone. Fighting with a hostage taker may provoke violence.
   - Do whatever you need to do to impair or subdue the intruder. Pick up and wield any heavy object that is close at hand.
   - Fight dirty, aim for sensitive spots of the body such as the eyes, groin, and throat. If the intruder attempts to grab you, swing your arms wildly. This will make it difficult for the intruder to maintain a hold on you.
   - If you are unable to escape or fight back, avoid eye contact, do not make any sudden moves or gestures and make every effort to remain calm. Obey any instructions from the intruder and wait for local law enforcement to arrive.

## TRAINING ON WORKPLACE VIOLENCE AWARENESS

The Company has established the following policy on training all Teammates with respect to workplace violence and security. All Teammates, including managers and supervisors, shall have training and instruction on general and job-specific workplace security practices. Training and instruction shall be provided when the WVPP is first established and periodically thereafter. Training shall be provided to all new Teammates and to other Teammates for whom training has not previously been provided. It shall also be provided to all Teammates, supervisors, and managers given new job duties for which specific workplace security training for the job duty has not been previously provided. Additional training and instruction will be provided to all personnel whenever the employer is made aware of new or previously unrecognized security hazards. General workplace violence and security training and instruction includes but is not limited to the following:

- Explanation of the WVPP including measures for reporting any violent acts or threats of violence.
- Recognition of workplace security hazards including the risk factors associated with the four types of violence.
- Measures to prevent workplace violence, including procedures for reporting workplace security hazards or threats to managers and supervisors.
- Ways to defuse hostile or threatening situations.
- Measures to summon others for assistance.
- Teammate routes of escape.
- Notification of law enforcement authorities when a criminal act may have occurred.
- Emergency medical care is provided in the event of any violent act upon an Teammate.
- Post-event trauma counseling for those Teammates desiring such assistance.
- Information about the Company's violent incident log and how Teammates can obtain a copy.

In addition, the Company provides specific instructions to all Teammates regarding workplace security hazards unique to their job duties, to the extent that such information was not already covered in other training.

## RECORD KEEPING AND REVIEW

*Note: Care must be taken to ensure appropriate confidentiality of medical and personnel records, as required by the ADA (Americans with Disabilities Act) and other applicable regulations or policies.*

The Company will record every incident of workplace violence in a confidential WVPP incident log that will include the following information:

- Date, time, and location of the incident.
- Detailed description of the incident.
- Classification of who committed the violence.
- The type of violence, including whether it was a physical attack or threat, whether weapons or other objects were involved, or whether it was a sexual assault.
- Consequences of the incident including whether security or law enforcement was contacted and whether actions were taken to protect Teammates from a continuing threat.

This log will be maintained for five years and will omit all personal identifying information. Teammates are entitled to view and copy the log within 15 calendar days of a request.

**Periodic updates and reviews of the following workplace violence reports and records will be made:**

- Occupational Safety and Health Administration (OSHA) logs.
- Workplace violence incident reports.
- Information compiled for recording assault incidents or near-assault incidents (i.e., Threat & Assault Log).
- Insurance records.
- Police reports.
- Workplace surveys.
- Accident investigations.
- Training records.
- Grievances.
- Inspection information.
- Other relevant records or information.

The safety and well-being of all Teammates is of the utmost importance. By implementing this Workplace Violence Prevention Program, it is our intention to effectively prevent and respond to incidents of workplace violence and create a culture of safety in our workplace. Regular review and updates of this program will be conducted to ensure its effectiveness.

Rule 601 . . . . . General Compliance Requirements and Definitions
Rule 602 . . . . . Policy
Rule 603 . . . . . Program Activities
Rule 604 . . . . . Responsibilities
Rule 605 . . . . . Energy Sources
Rule 606 . . . . . Procedures
Rule 607 . . . . . Devices
Rule 608 . . . . . Special Situations
Rule 609 . . . . . Training and Records
Rule 610 . . . . . Periodic Evaluations
Appendix A . . . . . Lockout/Tagout Evaluation Form
Appendix B . . . . . Specific Energy Control Procedures
Appendix C . . . . . Energy Control Procedures

## Rule 601 . . . . . .General Compliance Requirements and Definitions

Lockout / Tagout (OSHA 29 CFR 1910.147)

- Program shall discuss the lockout or Tagout application as provided:
    1) Lockout or Tagout devices shall be affixed to each energy isolating device by authorized employees.
    2) Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in a safe or off position.
    3) Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the safe or off position.

1.0 General compliance requirements

In the event that there are questions and/or topics not covered in Section 6, Team Fishel shall adhere to 1926.417 - Subpart K Electrical Standards and/or 1910.147 Subpart J, General Environmental Controls according to the work requirements.

2.0 Definitions

**Affected Teammate** - A Teammate whose job requires him/her to operate or use a machine or piece of equipment on which maintenance or repair is being performed under this lockout/tagout policy, or whose job requires him/her to work in an area in which such maintenance or repair is being performed. Affected Teammates must be informed when lockout/tagout is being performed.

**Authorized Teammate** - A Teammate who locks and tags machines or equipment in order to perform maintenance or repair on that machine or piece of equipment. An Authorized Teammate can also be an Affected Teammate.

**Capable of being locked out** - An energy-isolating device shall be considered to be capable of being locked out if it has any of the following:

- It is designed with a hasp or other attachment or integral part to which, or through which, a lock can be attached;
- It has a locking mechanism built into it; or
- If a lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

**Conductor** - A material, usually a wire, cable, or bus bar used for carrying an electrical current; it can have a dielectric covering.

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

**Energy** - All sources of power given to a piece of machinery or equipment. These can be electrical, pneumatic/hydraulic, or mechanical in nature, or fluids or gases.

**Energy Isolating Device** - A mechanical device that physically prevents the transmission or release of energy, including, but not limited to the following:

- A manually operated electrical circuit breaker;
- A disconnect switch;
- A manually operated switch; or
- A hydraulic blocking device.

Push buttons, selector switches, and other control-circuit type devices are not energy isolating devices.

**Energy Source** - Any electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy source that could cause injury to Teammates.

**Lockout** - The process used to identify, cut off and secure all energy sources before beginning maintenance, repairs installations or removals

**Lockout Device** - A device that utilizes a lock and key to hold an energy-isolating device in the safe position and prevents unexpected energization. Lockout device shall be affixed in a matter that will hold the energy isolating devices in a safe or off position. Each device shall be affixed by an authorized employee.

**Lockout/Tagout** - The placement of a lock and tag on the energy-isolating device in accordance with an established procedure, indicating that the energy-isolating device shall not be operated until removal of the lock/tag in accordance with an established procedure. The term lockout/tagout requires the combination of a lockout device and a tagout device.

**Tagout** - Attaching a tag to the lock on the power source that has been shut off, indicating the time, reason for the lockout and the name of the Teammate doing the work. The tag acts as a warning not to restore the energy source.

**Tagout Device** - A prominent warning tag that can be securely attached to the energy isolating device, equipment or machinery for the purpose of warning Teammates not to operate the energy source, machinery or equipment until the warning tag is removed. Tagout device shall be affixed in a matter that will clearly indicate that the operation or movement of energy isolating devices from the safe or off position. Each device shall be affixed by an authorized employee.

## Rule 602 . . . . . Policy

1.0 All Teammates shall be protected from injuries caused by unexpected energizing or start-up of machines or equipment, or any release of stored energy during service, repair, maintenance, operation, and associated activities.

2.0 This policy establishes minimum performance requirements for the control of such potentially hazardous conditions. This shall be accomplished by locking out and tagging out energy isolating devices, and otherwise preventing the unexpected energizing, start-up or release of stored energy.

3.0 This policy does not apply to work on cord and plug-connected electric equipment for which exposure to the hazards of unexpected energizing or start up of the equipment is controlled by the unplugging of the equipment from the energy source, and by the plug being under the exclusive control of the Teammate performing maintenance or repair.

## Rule 603. . . . . Program Activities

1.0 General

- 1.1 All Teammates exposed to the hazards associated with the release of energy shall be locked out and tagged out or otherwise protected prior to work being performed.
- 1.2 All exposed contractors who do not have an established lockout/tagout procedure shall comply with Team Fishel's lockout/tagout procedures.

1.3 An energy control plan shall be completed for all pieces of equipment requiring lockout. This plan shall identify all energy isolation points to be locked and tagged, as well as any special information required to safely achieve a zero energy state.

2.0 Work requiring more than one Teammate

2.1 If more than one Teammate is required to implement lockout or tagout procedures, each Teammate shall place his/her own lock and tag on the energy isolating devices.

2.2 When an energy-isolating device cannot accept multiple locks and tags, a multiple lockout device or hasp shall be used.

## Rule 604 ..... Responsibilities

1.0 Supervisor

1.1 Maintains awareness of all aspects of the Team Fishel lockout/tagout policy.

1.2 Ensures that all Teammates under his/her supervision understand the requirements for compliance with this policy, are aware of the lockout/tagout procedure, and are issued appropriate locks/tags.

1.3 Conducts a periodic inspection of the energy control procedures at least annually to ensure that the procedures and the requirements of this policy are being followed.

1.4 Coordinates activities of contractors that may affect lockout/tagout and energy control within the Supervisor's area.

1.5 Ensures that only authorized Teammates perform any work operation that may require the implementation of this policy.

2.0 Safety Coordinator

2.1 Provides necessary Teammate training for the lockout/tagout procedures.

2.2 Conducts periodic inspections of work sites to ensure compliance with lockout/tagout procedures.

2.3 Provides guidance regarding the applicability of the lockout/tagout policy.

2.4 Approves/disapproves exceptions to the lockout/tagout policy.

2.5 Determines the type of locking devices and tags to be used in each area.

2.6 Maintains the training records of all Teammates included in the training sessions.

3.0 Authorized Teammate

3.1 Maintains awareness of all aspects of the lockout/tagout policy and complies with all procedures.

3.2 Follows all safe shutdown and startup procedures.

3.3 Communicates activities to all Affected Teammates and other Authorized Teammates.

3.4 Ensures the security of his/her own lock and key.

4.0 Affected Teammate

4.1 Follows the direction of the authorized Teammate as it applies to his/her work.

## Rule 605 ..... Energy Sources

1.0 Energy

1.1 Energy refers to the movement or possibility of movement in equipment, machinery or work operation. Whether the power switch is on or off, energy is present in any powered equipment.

1.2 Energy comes in six types:

1.2.1 Electrical energy – the flow of electrons through a conductor.

1.2.2 Hydraulic energy – the flow caused by a pressurized fluid, especially hydraulic fluid and water.

1.2.3 Kinetic (moving) energy – the force caused by an object's motion.

- An example of kinetic energy is the energy released by a spinning shaft as it turns.

1.2.4 Pneumatic energy – the force caused by compressed air.

1.2.5 Potential (stored) energy – the force stored in an object that isn't moving.

- An example of potential energy is a suspended load. The load is not moving, but it is under tension, which results in stored energy.

1.2.6 Thermal energy – increased heat of a fluid or object.

1.3 It is important to identify and isolate all types of energy. All sources need to be shut off and prevented from releasing stored energy.

1.4 If the energy source is not isolated, a release of energy can occur. This could cause an unexpected start-up, movement caused by the release of stored energy, or electrical shock. All could result in serious injury or death.

2.0 Energy isolating devices

2.1 Accidental start-up and/or release of stored energy can sometimes be controlled with energy-isolating devices. Some examples are:

- Machine guards
- Electrical disconnects
- Mechanical stops
- Point-of-operation guards

2.2 All of these devices are designed to provide additional safety to Teammates working on a piece of machinery or equipment, in addition to power shut-off.

2.3 No safety device is 100% safe if someone wants to bypass it. Teammates shall never rely totally on energy isolating devices as their only protection. Proper personal protective equipment (PPE) shall always be worn.

2.4 See Appendix B of this section for further information on Procedures for Controlling Hazardous Energy.

**Rule 606 . . . . . Procedures**

1.0 Step 1: Preparation and notification of performing lockout/tagout procedures

1.1 Before performing the work operation, Teammates must be able to answer the following questions:

1.1.1 What is the type of energy present?

1.1.2 What are the potential hazards related to the energy source?

1.1.3 What steps are necessary to control the energy source?

1.1.4 Who needs to be notified that the energy source is locked out and tagged out?

1.2 Once these questions have been answered, all affected Teammates should be notified that the lockout procedure is about to begin.

1.3 See Appendix C for further information on Energy Control Procedures.

2.0 Step 2:Shut down procedures

2.1 Teammates must follow the established procedures and/or the manufacturer's instructions for safe and proper shut down. Teammates should be aware that some equipment has special shutdown procedures (for example, blocking all hydraulic lift equipment).

2.2 Teammates must make sure that all energy sources have been located and shut down. There may be more than one power source. All must be shut down.

3.0 Step 3: Isolate the machine, equipment or any potential energy source

3.1 Teammates should isolate the energy source by:

- Shutting off the main breaker or control switch
- Closing valves
- Disconnecting fluid or electrical lines
- Pulling electrical plugs

3.2 When working on electrical equipment or wiring, Teammates should note the following.

- Having electrical current unexpectedly present when a Teammate is working on a piece of equipment or wiring can cause serious injury or death.
- Before any repair work or inspection of a piece of electrical equipment is begun by an Authorized Teammate, the current should be turned off at the switch box or circuit breaker panel and the switch padlocked in the "off" position and tagged to indicate which switches or circuits are out of service.
- A Teammate should never pull an electrical switch while it is under load.
- A Teammate should never remove a fuse instead of disconnecting.
- If working on electrical components or wiring, a Teammate should always use a voltage meter to test all exposed components for voltage before starting any work.

4.0 Step 4: Attach the lock and tag

4.1 Each Teammate is responsible for attaching his/her own locking and tagging device. Teammates whose duties require them to work on equipment must be provided with their own lock and key. Each Teammate shall be issued two keys, and the keys shall have their own configurations. No one else shall have duplicate keys.

4.2 If more than one Teammate is involved in the maintenance, multiple locking devices must be used to allow each maintenance Teammate to lock out and tag. This prevents one Teammate from accidentally causing the release of energy while another Teammate is still working.

4.3 A Teammate should never use another Teammate's lock and never loan his/her own.

4.4 When all energy sources are locked, the Teammate must apply a tag to the power source, and make sure the tag is filled out completely and correctly.

4.5 A wide variety of lockout devices are available to handle equipment such as circuit breakers, switches, etc. Teammates should see their Safety Coordinator for more information.

5.0 Step 5: Release any stored energy

5.1 After placing lockout/tagout devices, Teammates must make sure that any stored energy on the equipment is released. This is done by:

- Inspecting equipment to make sure all parts have stopped moving;
- Bleeding the electrical stored charge;
- Venting or isolating pressure of hydraulic lines from the work area, leaving the vent valves open;
- Draining tanks and valves;
- Releasing the tension on springs or blocking the movement of spring-driven parts;
- Blocking or bracing parts that could fall because of gravity;
- Blocking, clamping or chaining any switches or levers that could be moved into the start position;
- Clearing lines containing liquid materials that are toxic, hot, cold, corrosive or asphyxiating; and
- Monitoring the process to make sure that the work being done shall not result in an accumulation of stored energy.

6.0 Step 6: Test equipment to verify all energy has been removed or controlled

6.1 To make sure that all kinetic and stored energy has been released or controlled, the Teammate must:

- Clear other Teammates from the danger areas;
- Test the start switches on the equipment to confirm that all power sources have been shut down and switches can't be moved to the "on" or "start" position;
- Check pressure gauges to make sure that all lines are de-pressurized and stored energy has been released;
- Secure all blocks, clamps, chains, etc.; and
- Check electrical circuits to make sure that the voltage is at zero.

6.2 Because some machinery and equipment can be remotely controlled, all Teammates must consider equipment to be energized and dangerous at all times, except when they have personally locked it out of operation and tested equipment to verify that the energy state is zero.

6.3 Once the Teammate has confirmed that all energy sources have been controlled, and locks and tags are in place, it is safe to begin the work operation.

6.4 While working, Teammates should avoid any actions that could cause reactivation.

6.5 When installing new wiring, Teammates should make sure that the lockout is not bypassed.

7.0 Safe startup procedures

7.1 Step 1: Preparing for startup

7.1.1 Once the maintenance or installation is completed, the equipment can be re-started.

7.1.2 Teammates must make sure the area is safe for restart by:

- Making sure all equipment components are fully assembled and operational;
- Removing all tools from the equipment and the work area;
- Removing all braces, pins, blocks and chains;
- Reconnecting all pressure hoses; and
- Clearing the work area of all Teammates.

7.2 Step 2: Remove lockout devices and tags

7.2.1 Except in emergencies, each lockout device must be removed by the Teammate who put it on.

7.3 Step 3: Notify affected Teammates

7.3.1 All Teammates in the area must be notified that maintenance, service or work operation is complete and that the lockout/tagout has been removed and re-start is safe.

7.3.2 Once all three steps are completed, it is safe to proceed.

**Rule 607. . . . . Devices**

1.0 Lockout devices:

1.1 Must be provided to each Authorized Teammate.

1.2 Must only be used for the purposes of lockout/tagout.

1.3 Must be able to withstand the environment that they are exposed to for as long as they are in place.

1.4 Must be standardized by color, shape and size.

2.0 Tags:

2.1 Must be standardized by color, shape, size and format or print.

2.2 Must contain warnings such as “DANGER – DO NOT OPERATE THIS EQUIPMENT.”

2.3 Must have a space for the name of the lock or tag owner, date, and purpose of the lockout/tagout.

2.4 Must be substantial enough to prevent inadvertent or accidental removal.

2.5 Must be attached by a one-piece, nylon tie that is non-reusable and self-locking, and must be cut to be released.

3.0 Tagout only

3.1 A tagout system can be used instead of a lockout system only in the following situations:

3.1.1 When an energy-isolating device cannot be locked out; and

3.1.2 When Team Fishel can prove that a tagout system can provide the same amount of protection to the Teammates as a lockout system.

3.2 If a "Tagout only" system is used, the tags must be placed at all isolation points, and the Teammate must follow all safety procedures.

## Rule 608 . . . . . .Special Situations

1.0 Some situations may occur in the workplace that require additional procedures to perform safe lockout/tagout.

2.0 Removing another Teammate's lock

2.1 A lock may be removed by someone other than the Teammate who placed the lock only under the following conditions:

- The Teammate whose lock is to be removed is not available to remove the lock after servicing has been completed.
- All reasonable efforts have been made to contact the Teammate to inform him/her that the lock needs to be removed.
- The Teammate is contacted and informed that the lock has been removed prior to his/her starting work the next day.

3.0 Shift changes

3.1 If the work operation will extend beyond one shift, a Teammate must make provisions to have Teammates from the new shift place their locks on the lockout device before they begin work. This must be done without any interruption in the lockout/tagout protection.

4.0 Outside contractors

4.1 If outside contractors will be working in or around the same energized sources provisions shall be taken to coordinate and standardize a lockout/tagout procedure.

4.2 If the contractor's procedures are different from Team Fishel's, a coordination meeting shall take place in order to coordinate and make an agreement with the contractor as to which procedures shall be followed.

4.2.1 The coordination meeting shall be documented on the Daily Field Report and shall include the time the meeting took place, the persons who participated in the meeting, and what procedures were agreed upon to follow.

4.3 All Teammates working on the project must be notified of any changes in their own procedures.

5.0 Temporary re-activation

5.1 If equipment being serviced must be temporarily re-activated (for example, to test the maintenance being done on the equipment) all startup and lockout/tagout procedures must be followed.

6.0 Temporary removal

6.1 If lockout tagout must be temporarily removed from the equipment for testing or repositioning of equipment the following sequences must be followed:

- Clear the machine or equipment of tools or materials.
- Remove employees from the machine or equipment area.
- Remove the lockout or tagout devices.
- Energize and proceed with testing or positioning.

6.2 De-energize all systems and reapply energy control measures once testing or repositioning is complete.

**Rule 609 .....Training and Records**

1.0 The OSHA Standard requires that Teammates must be trained in lockout/tagout. This training must cover:

1.1 All the hazards associated with uncontrolled energy

1.2 This written energy control program

1.3 Lockout/tagout procedures

2.0 Retraining is necessary when:

2.1 A Teammate changes job assignments;

2.2 A new piece of machinery, equipment, or exposure comes into the workplace;

2.3 An inspection has identified a need to change lockout/tagout procedures;

2.4 The employer feels the written energy control program or lockout/tagout procedures need to be reviewed.

3.0 Records must be kept documenting that appropriate Teammates have been trained in these lockout/tagout procedures.

3.1 The training shall be completed by the Safety Coordinator and shall include the following:

- Training of each Authorized Teammate in the recognition of hazardous energy sources, the type and amount of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- Training for the Affected Teammates in the purpose and use of the energy control procedure.
- Training about the lockout/tagout procedure, and the prohibitions relating to attempts to restart or reenergize equipment, which is locked out and/or tagged out. This training must be done for all other Teammates whose work operations are or may be in the area where energy control procedures may be utilized.
- Documentation of this training shall be kept in the local Teammate personnel files.

**Rule 610 . . . . . Periodic Evaluations**

1.0 The energy control program and lockout/tagout procedures need to be evaluated periodically to make sure that the workplace stays safe and that OSHA requirements are being met.

2.0 The Safety Coordinator shall be responsible for the evaluations. (See Appendix A of this section).

3.0 Evaluations must be done annually at a minimum and must include:

- 3.1 Interviews with Authorized Teammates to discuss their responsibilities under the written energy control program and lockout/tagout procedures.
- 3.2 Checks to make sure proper locks and tags are being used.
- 3.3 Checks to make sure all lockout/tagout procedures are being followed.

4.0 Any deficiencies in the program or procedures must be corrected, and retraining must be provided if necessary.

5.0 All evaluations must be documented and contain records of:

- 5.1 The machine, equipment, or work operation that required implementation of the lockout/tagout procedure.
- 5.2 The date of the evaluation.
- 5.3 The Teammates that were interviewed.
- 5.4 The name of the Safety Coordinator.

# APPENDIX A:
# LOCKOUT/TAGOUT EVALUATION FORM

Division _____ Location _____

Safety Coordinator _____ Date _____

Describe the job being evaluated:

Authorized Teammates working on the job: Interviewed

_____ Yes No

_____ Yes No

_____ Yes No

_____ Yes No

_____ Yes No

_____ Yes No

_____ Yes No

| | Yes | No | Comments |
|---|---|---|---|
| Did Authorized Teammates understand their responsibilities under the Lockout/Tagout Program ? | _____ | _____ | _____ |
| Were locks and tags in place as needed? | _____ | _____ | _____ |
| Were affected Teammates notified? | _____ | _____ | _____ |
| Were all company safety procedures followed? | _____ | _____ | _____ |

# APPENDIX B:
# SHOP OPERATIONS
## SPECIFIC ENERGY CONTROL PROCEDURES
## FOR EACH PIECE OR TYPE OF MACHINE OR EQUIPMENT

Type of Equipment:_____ Equipment #_____

Completed By:_____ Date:_____

**Procedure for Controlling Hazardous Energy**

1.0 Teammates must be familiar with the sources of hazardous energy for the machine or equipment to be serviced.

**Sources of Hazardous Energy**

_____ Electrical _____ Engine _____ Spring

_____ Counterweight _____ Flywheel _____ Hydraulic

_____ Pneumatic _____ Chemical _____ Thermal

_____ Other_____

2.0 Affected Teammates should be notified that the equipment is about to be shut down and locked out. This includes the Shop Foreman.

3.0 The Authorized Teammate shall make sure that the ignition is turned off and the engine is shut down. The wheels should be chocked. If working on electrical equipment, remove the battery cables.

- 3.1 If a dump truck bed is raised to perform maintenance, it must be blocked with the prop rods with a tag attached to the rods. Hydraulic failure would allow the bed to lower if not blocked, causing serious injury or death.
- 3.2 If a backhoe loader or boom is raised to perform maintenance it must be blocked and a tag attached to the blocking mechanism. Hydraulic failure would allow the boom or loader to lower, causing serious injury or death.

4.0 If working on a compressor, it should be shut down by switching the on/off switch to the off position. The Teammate should close the door panel over the switch and lock with his/her lock and lockout tag. Starting the compressor while performing service could cause serious injury.

5.0 If working on a trailer, the Teammate must chock the wheels and place the tag on the pintle eye. If working on the brakes, the spring brake locking device should be used to relieve the spring brake pressure. Failure to lock the spring while performing service can cause serious injury.

6.0 Teammates should isolate all energy sources listed in 1.0 above. Teammates should block or dissipate all stored energy in rams, flywheel, springs, pneumatic or hydraulic systems, etc.

7.0 The Teammate should remove the key from the ignition and place it in the key box, place his/her lock on the key box hasp and place it on the dash or in another safe place.

8.0 The Teammate should place the “Danger – Do Not Operate This Equipment” tag in a conspicuous place near the operating controls.

9.0 The Teammate should verify that the equipment is locked out by testing the equipment operating controls. Return all controls to the “Neutral” or “Off” position after testing.

10.0 Once all of the above procedures have been followed, equipment servicing can begin.

**Procedure for Removing Locks/Tags**

1.0 Teammates should check the equipment to be sure that it is operationally ready for start-up. Teammates must ensure that all tools have been removed from the area and that all guards have been replaced.

2.0 All Teammates must be safely positioned.

3.0 All Affected Teammates must be notified that all energy restraints, locks and tags are going to be removed and that the equipment is ready for operation.

4.0 All blocks, energy restraints, lock and tags should be removed.

5.0 At this point all energy to the equipment can be restored.

# APPENDIX C:
# ENERGY CONTROL PROCEDURES

## Equipment/Machine: Semi-tractor

**Scope:** This procedure shall be used for all servicing and/or maintenance operations performed on any semi-tractor trucks.

**Purpose:** To ensure the safety of Teammates who perform maintenance and/or servicing on this equipment.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. These Teammates must be knowledgeable of all information contained in this procedure and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity could cause the truck to roll or cause a raised portion of the truck (cab/hood) to fall.
- Kinetic energy of engine moving parts can cause injury by direct contact, or by causing tools or other materials to be thrown.
- Thermal Energy - Contact with hot components can cause burns.
- Improper opening of the cooling system can cause scalding.
- Electrical Energy - Short circuits can cause electrical shock.
- Arcing from a short circuit can cause burns and may cause fires if flammable vapors are present.
- Contact with battery fluid shall result in burns.
- Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Affected Teammates must be notified that the truck is being taken out of service for maintenance/servicing.
2. Shut the truck down by applying the parking brake and shutting off the engine.
3. Isolate the truck from its energy source by removing the ignition key and keeping exclusive control of it (unless group lockout/tagout applies).
4. Complete a tag and attach it to the steering wheel as close to the ignition as possible.
5. Control stored energy in the truck by placing wheel chocks in front of and behind at least one drive wheel when applicable; let the engine and attached parts cool; on trucks with air starters, drain the reservoir; on tilt-cab trucks, tilt cab until safety latch engages; if jacked up, support the truck on jack stands; if the truck is on a lift, the lift safety latch must be properly engaged.
6. Verify that the truck will not start.
7. Upon completion of service, notify all affected Teammates that the truck is being placed back in service.
8. Remove wheel chocks.
9. Remove locks and tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Air compressors – electric

**Scope:** This procedure shall be used when performing service/maintenance on any electric compressor.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on this type of equipment.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. These Teammates must be knowledgeable of all information contained in this procedure and have the required training to perform a lockout/tagout.

**Types of Hazardous Energy**

- Electrical – 220 or 110 voltage in wiring, switches and motor could cause severe electrical shock.
- Kinetic energy – from moving parts.
- Pneumatic pressure - from stored air.

**Energy Control Procedures:**

1. Affected Teammates shall be notified that the system is being shut down for service/maintenance.
2. Switch electric off at the control panel; install lock and tag; remove the battery from power source.
3. Drain the air from the storage tank if service is being performed to any air plumbing, hoses or tank.
4. Make sure the compressor cannot be started.
5. After servicing is completed, notify affected Teammates when the system is to be restarted.
6. Remove locks and tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Shop overhead doors

**Scope:** This procedure shall be used for all service/maintenance operations on any shop overhead doors.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on shop overhead doors.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- The door could fall, causing serious injury to the Teammate.
- The door could travel up or down powered by electric motors.
- Stored kinetic energy in assist springs could cause serious energy.

**Energy Control Procedures:**

1. Notify affected Teammates that doors shall be serviced.
2. Shut off circuit switch. Attach lock and tag.
3. After completion of servicing, notify affected Teammates that power shall be restored to the doors.
4. Remove locks and tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Electric welders

**Scope:** This procedure shall be used for all service/maintenance on electric welders.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on this type equipment.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:** Electrical shock.

**Energy Control Procedures:**

1. Notify affected Teammates when a welder is being put out of service.
2. Shut power off at the circuit breaker; install lock and tag.
3. Upon completion of service, notify affected Teammates that the welder is being put back in service.
4. Remove locks and tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Fuel dispensers

**Scope:** This procedure shall be used for all servicing/maintenance performed on any fuel dispenser.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on fuel dispensers.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:** Shock from electrical circuits.

**Energy Control Procedures:**

1. Notify affected Teammates that the fuel dispensing system shall be shut down.
2. Shut power off at the circuit panel.
3. Install lock and tag.
4. Upon completion of servicing, notify all affected Teammates that the system shall be brought back up.
5. Remove lock and tag.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Tire changing machine

**Scope:** This procedure shall be used for all servicing/maintenance performed on any tire changing machine.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on tire changing machines.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Teammates could be injured by mechanical parts that become energized.
- Electrical shock.

**Energy Control Procedures:**

1. Notify affected Teammates that the tire changing machine shall be shut down.
2. Shut power off at the circuit breaker panel.
3. Install lock and tag.
4. If the tire changing machine plugs into a wall outlet, remove the plug and maintain exclusive control over it.
5. Test energy isolation by pressing the start switch.
6. Upon completion of servicing, notify affected Teammates that the tire changing machine shall be put back in service.
7. Remove lock and tag.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Electric fans, bench grinders, battery chargers, Freon recovery station, "A" frame electric hoist, electric lube pumps, wall-mounted heating and air conditioning units

**Scope:** This procedure shall be used for all servicing/maintenance performed on any of this equipment.

**Purpose:** To ensure the safety of Teammates performing service/maintenance on this equipment.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Electrical – short circuits can cause electrical shock.
- Arcing from a short circuit can cause burns and may cause a fire if flammable vapors are present.
- Kinetic energy – moving parts could cause injury by direct contact or by causing tools or other materials to be thrown.

**Energy Control Procedures:**

1. Notify affected Teammates that this equipment shall be shut down.
2. This equipment can be unplugged. The plug should remain under the exclusive control of the Teammate performing the service.
3. Upon completion of servicing, notify affected Teammates that the equipment shall be put back into service.
4. Replace plug in wall socket.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Lift gates

**Scope:** This procedure shall be used for all service/maintenance performed on any lift gate.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on lift gates.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of HazardousEnergy:**

- Hydraulic pressure in hoses and pump.
- Gravity – lift gate could fall and cause serious injury or death if not properly secured or blocked.

**Energy Control Procedure:**

1. Notify affected Teammates that the lift gate shall be taken out of service.
2. Lower the lift gate to the floor or block in place.
3. Take the key out of the ignition and maintain under your exclusive control.
4. Install the tag on the steering wheel near the ignition.
5. Remove the battery positive cable.
6. Test the engine to make sure it shall not start.
7. Upon completion of service, notify affected Teammates that the lift gate shall be placed back in service.
8. Remove the block from lift gate if blocked.
9. Replace the positive battery cable.
10. Remove tag.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Lube pumps – air powered

**Scope:** This procedure shall be used for all service/maintenance performed on any lube pump.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on lube pumps.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of HazardousEnergy:**

- Air pressure – stored energy of the compressed air could cause injury through direct skin contact; product under pressure. Prolonged direct contact could cause skin irritation.
- Kinetic energy of pump moving parts could cause injury by direct contact or by causing tools or other materials to be thrown.

**Energy ControlProcedure:**

1. Notify affected Teammates that lube pump shall be taken out of service.
2. Remove the air supply line or close the supply line valve.
3. Install a lock and tag on the valve or line.
4. Bleed pressure from the product lines by operating the delivery gun.
5. Upon completion of service, notify affected Teammates that the lube pumps shall be put back in service.
6. Remove the lock and tag.
7. Reconnect the air supply line or open the supply line valve.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Forklift

**Scope:** This procedure shall be used for service/maintenance performed on any forklift.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on fork lifts.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have received the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- If raised, gravity could cause the forks to fall.
- Kinetic energy - moving engine parts could cause injury by contact or by causing tools or other materials to be thrown.
- Thermal - contact with hot parts or components could cause burns; improper opening of the cooling system can cause scalding.
- Electrical - short circuits can cause electrical shock; arcing from a short circuit can cause burns and may result in a fire if flammable vapors are present.
- Chemical - contact with battery fluid can cause burns; prolonged contact with coolant and lubricants can cause skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify affected Teammates that forklift is being taken out of service.
2. Shut the engine off and keep the key under your exclusive control.
3. Place tag near the ignition system.
4. Chock the wheels.
5. Allow the engine to cool before servicing the cooling system.
6. Bleed hydraulic pressure from the lines by lowering forks to the floor.
7. Operate hydraulic controls after shutting the engine down to ensure that pressure has been eliminated.
8. Remove positive battery cable when servicing electrical components.
9. Upon completion of service, notify affected Teammates that the forklift is being placed back in service.
10. Replace the positive battery terminal.
11. Remove the wheel chocks.
12. Remove the tag.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Shop heaters – natural gas

**Scope:** This procedure shall be used for service/maintenance performed on any natural gas-fired shop heaters.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on shop heaters.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Thermal – contact with hot parts could result in burns.
- Electrical – short circuits can cause burns. Arcing from short circuits can cause severe burns and may result in fires if flammable vapors are present.
- Chemical – natural gas is highly flammable and could cause burns and explosions.

**Energy ControlProcedures:**

1. Notify affected Teammates that the heaters are being shut down for repairs.
2. Shut the heater down by turning the thermostat to the “Off” position.
3. Extinguish the pilot light by turning the gas supply off.
4. Isolate the heater from its energy sources by turning off the main gas line to the heater, then lock and tag it out.
5. Turn off the circuit breaker, then lock and tag it out.
6. Verify the heater is isolated from its energy sources by trying to operate it.
7. Upon completion of repairs, notify all affected Teammates that the heater(s) is/are being put back in service.
8. Remove the lock and tag from the circuit breaker and main gas line to heater.
9. Turn the thermostat up to operating temperature.

## ENERGY CONTROL PROCEDURE

**Equipment/Machine:** All other equipment and machinery that contains hazardous energy sources.

**Scope:** This procedure shall be used when servicing equipment and machines with a single source of energy.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on this type of equipment.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:** Single energy source capable of being locked out. Energy sources include but are not limited to electrical, mechanical, hydraulic, pneumatic, chemical, thermal and gravitational.

**Energy Control Procedures:**

1. Notify all affected Teammates that the equipment shall be shut down for service.
2. Shut down the equipment via the normal stopping procedure.
3. Shut all power to the equipment at the primary power source.
4. Install lock and tag to the energy isolation device.
5. Operate the switch, valve, etc. to ensure the power source is shut off from the machine or equipment.
6. Dissipate or block any secondary energy.
7. Check to make sure the equipment/machine is properly disconnected by trying to start it.
8. Upon completion of service, notify all affected Teammates that the equipment/machine is ready to be put back in service.
9. Remove locks and tags.
10. Restore power to the equipment/machine.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Dump trucks

**Scope:** This procedure shall be used for service/maintenance on dump trucks.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on dump trucks.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – could cause the truck to roll or cause the raised hood or bed to fall.
- Kinetic energy – moving engine parts could cause injury by direct contact or by causing tools or other materials to be thrown.
- Thermal energy – contact with hot parts can cause burns. Improper opening of coolant system can cause scalding.
- Electrical – short circuits can cause electrical shock. Arcing from a short circuit can cause burns and may result in a fire if flammable vapors are present.
- Chemical – contact with battery fluids shall result in burns. Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the dump truck is being taken out of service.
2. Lower all truck beds or block them so that they cannot fall.
3. Attach tags to all blocking devices.
4. Shut the truck down and apply the parking brake.
5. Remove the ignition key and maintain exclusive control over it. Place a tag on the steering wheel near the ignition.
6. Place wheel chocks in front of and behind at least one drive wheel.
7. Let the engine and attached parts cool.
8. Support the truck by jack stands if jacked up.
9. If the truck is on a lift, the lift safety latch must be properly engaged.
10. Once the repairs are completed, notify all affected Teammates that the truck is being placed back in service.
11. Remove the blocking mechanism from the truck bed if installed.
12. Remove tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Trenchers

**Scope:** This procedure shall be used for service/maintenance performed on any trencher.

**Purpose:** To ensure the safety of Teammates performing service/maintenance on trenchers.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – the chain hoist could fall unless lowered or blocked.
- Kinetic energy – moving parts of the engine or chain could cause injury or cause tools or other material to be thrown.
- Thermal – contact with hot parts shall cause burns. Improper opening of coolant system could cause scalding.
- Electrical – short circuits can cause electrical shock. Arcing from a short circuit can cause burns and can cause a fire if flammable vapors are present.
- Chemical – contact with battery fluid can cause burns. Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the trencher shall be taken out of service for service/repairs.
2. Lower the trencher blade or block it so it cannot fall.
3. Shut the trencher down and retain exclusive control over the key. Place a tag near the ignition.
4. Place wheel chocks in front of and behind at least one drive wheel.
5. Let the engine and attached parts cool.
6. Once the repairs are completed, notify all affected Teammates that the trencher is to be placed back in service.
7. Remove the blocking mechanism from the trencher blade if installed.
8. Remove tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Directional drills

**Scope:** This procedure shall be used for service/maintenance on directional drills.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on directional drills.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Kinetic energy – moving engine parts or spinning rods could cause injury by direct contact or by causing tools or other materials to be thrown.
- Thermal energy – contact with hot parts could cause burns. Improper opening of the coolant system can cause scalding.
- Electrical – short circuits can cause electrical shock. Arcing from a short circuit can cause burns and may cause a fire if flammable vapors are present.
- Chemical – contact with battery fluids shall result in burns. Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the drill is being taken out of service.
2. Release any hydraulic fluid pressure that may be present.
3. Shut the drill down, remove the key and maintain exclusive control over it. Place a tag near the ignition.
4. Let the engine and attached parts cool.
5. Once the repairs are completed, notify all affected Teammates that the drill is being placed back in service.
6. Remove tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Backhoes

**Scope:** This procedure shall be used for service/maintenance on backhoes.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on backhoes.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – could cause the backhoe to roll or cause the raised boom or loader to fall.
- Kinetic energy – moving engine parts could cause injury by direct contact or by causing tools or other materials to be thrown.
- Thermal energy – contact with hot parts could cause burns. Improper opening of coolant system can cause scalding.
- Electrical – short circuits can cause electrical shock. Arcing from a short circuit can cause burns and may cause a fire if flammable vapors are present.
- Chemical – contact with battery fluids shall result in burns. Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the backhoe is being taken out of service.
2. Lower the boom and loader or block them so that they cannot fall. Attach a tag to the blocking mechanism.
3. Shut down the backhoe and keep exclusive control over the ignition key. Place a tag near the ignition.
4. Chock the wheels.
5. Let the engine and attached parts cool.
6. Once the repairs are completed, notify all affected Teammates that the backhoe is being placed back in service.
7. Remove the tag from the boom and loader blocking devices if installed. Remove the blocking devices.
8. Remove tag from the ignition system.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Pick-up trucks

**Scope:** This procedure shall be used for service/maintenance on pick-up trucks.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on pick-up trucks.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – could cause the pick-up truck to roll.
- inetic energy – moving engine parts could cause injury by direct contact or by causing tools or other materials to be thrown.
- Thermal energy – contact with hot parts can cause burns. Improper opening of the coolant system can cause scalding.
- Electrical – short circuits can cause electrical shock. Arcing from a short circuit can cause burns and may result in a fire if flammable vapors are present.
- Chemical – contact with battery fluids shall result in burns. Prolonged contact with coolant and lubricants may result in skin irritation or other chemical injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the pick-up truck is being taken out of service.
2. Shut the truck down and apply the parking brake.
3. Remove the ignition key and maintain exclusive control over it. Place a tag on the steering wheel near the ignition.
4. Chock the wheels.
5. Let the engine and attached parts cool.
6. Support the truck with jack stands if jacked up.
7. If the truck is on a lift, the lift safety latch must be properly engaged.
8. Once the repairs are completed, notify all affected Teammates that the pick-up truck is being placed back in service.
9. Remove wheel chocks.
10. Remove tags.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Trailers

**Scope:** This procedure shall be used for service/maintenance on trailers.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on trailers.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – could cause the trailer to roll or the ramps to fall.
- Potential energy – spring brake pressure could cause serious injury.

**Energy Control Procedures:**

1. Notify all affected Teammates that the trailer is being taken out of service.
2. Chock the wheels.
3. Place a tag on the pintle eye.
4. If working on the brakes, use the spring brake locking device to relieve the spring break pressure.
5. Once the repairs are completed, notify all affected Teammates that the trailer is being placed back in service.
6. Remove the wheel chocks.
7. Remove tag.

# ENERGY CONTROL PROCEDURE

## Equipment/Machine: Compressor

**Scope:** This procedure shall be used for service/maintenance on compressors.

**Purpose:** To ensure the safety of Teammates who perform service/maintenance on compressors.

**Authorization:** Only Authorized Teammates are permitted to implement this energy control procedure. They must be knowledgeable of this information and have had the required training to perform a lockout/tagout.

**Types of Hazardous Energy:**

- Gravity – could cause the compressor to roll.
- Kinetic energy – moving engine parts could cause injury by direct contact or by causing tools or other materials to be thrown.
- Electrical – 220 or 110 voltage in wiring, switches and motor could cause severe electrical shock. Short circuits can cause electrical shock. Arcing from a short circuit can cause burns and may result in a fire if flammable vapors are present.

**Energy Control Procedures:**

1. Notify all affected Teammates that the compressor is being taken out of service.
2. Shut the on/off switch to “Off.”
3. Close the panel door over the on/off switch, lock and tag it out.
4. Chock the wheels.
5. Once the repairs are completed, notify all affected Teammates that the compressor is being put back in service.
6. Remove the wheel chocks.
7. Remove the lock and tag.
8. Turn the switch back on.

## GENERAL ELECTRICAL SAFETY

Rule 701 . . . . . General Compliance Requirements
Rule 702. . . . . Qualified Personnel
Rule 703. . . . . Flexible Cords
Rule 704. . . . . Ground Fault Circuit Interrupters (GFCI's)
Rule 705. . . . . Power Lines
Rule 706. . . . . Batteries
Rule 707. . . . . Confined or Enclosed Work Spaces
Rule 708. . . . . Dielectric Rubber Glove and Sleeve Testing
Rule 709. . . . . Insulating Protective Equipment- Use

## TRANSMISSION AND DISTRIBUTION WORK

Rule 710 . . . . . Insulated Protective Equipment
Rule 711 . . . . . Working on De-energized Lines and Equipment
Rule 712 . . . . . Utility Poles
Rule 713 . . . . . Handlines, Droplines, Taglines & Ropes
Rule 714 . . . . . Body Belt and Safety Straps
Rule 715 . . . . . Working Live-Line Tools
Rule 716 . . . . . Insulating Platforms
Rule 717 . . . . . Operating Insulated Aerial Lifts
Rule 718 . . . . . Hazardous Energy Control (Lockout/Tagout)
Rule 719 . . . . . Stringing or Removing Lines Across or Adjacent to Energized Conductors
Rule 720. . . . . Grounding
Rule 721 . . . . . Working on Distribution Transformers
Rule 722. . . . . Capacitors
Rule 723. . . . . Underground Distribution Work
Rule 724. . . . . Substation Work
Rule 725. . . . . Line Clearance Tree Trimming Operations
Appendix A . . . . . Electrical Personal Protective Equipment Matrix
Appendix B . . . . . Minimum Approach Distance Clearance Table

## GENERAL ELECTRICAL SAFETY

### Rule 701 . . . . . .General Compliance Requirements

In the event that there are questions and/or topics that are not addressed in Section 7 of this Manual, Team Fishel will adhere to the appropriate Occupational Safety and Health Administration (OSHA) standards. The OSHA standards that may apply are likely to be found in one of the following:

(i) 1910.269 Electric Transmission and Distribution,

(ii) 1910.301-.399 Electric Safety, or

(iii) 1926 Subpart K.

Team Fishel is also required to follow the safety guidelines set forth by the host utility ("customer") at all times when working on or around their facilities. Therefore, the customer's policy shall control all work being performed by Team Fishel. Specific customer guidelines addressing switching and clearance procedures shall be in place prior to commencing work. If the customer's policy and/or direction puts any Teammate or the general publics safety at risk, or if the customer's policies do not meet the minimum requirements of any of the applicable OSHA standards listed above, Team Fishel's Safety Director should be consulted immediately for direction. A copy of the customer's safety policies and procedures shall be retained on site when work is being performed covered under these conditions.

*See Appendix A of this section for the Electrical Personal Protective Equipment.*

1.0 Electrical Safety and Work Practices

1.1 Before work is commenced; a Daily Work Plan and Safety Briefing (tailgate, job briefing) shall be held and documented with all Teammates to advise each Teammate as to:

a) The hazards associated with the job.

b) The work procedures involved.

c) All precautions to be taken.

d) All energy source controls.

e) Personal protective equipment required, and all specialized safety equipment to be used.
Reference OSHA 1910.269 Electric Transmission and Distribution, 1910.301-.399 Electric Safety or 1926 subparts K and V.

1.2 Electrical equipment and lines shall always be considered as energized unless they positively known to be dead and grounded. Before work is started on electrical equipment or circuits, a voltage test shall be made to determine existing conditions.

1.3 When Teammates are working and find a condition that they cannot handle safely, they shall call for assistance.

1.4 Only qualified Teammates and apprentices working under their direct supervision may work on or with exposed energized or equipment operating at 600 volts or more, and must be familiar with the minimum working clearance and approach distances. (See Minimum Approach Distance Table pg 7-50 Appendix B)

1.5 Two Teammates shall not contact separate energized primary phases while working from the same pole, structure or aerial lift.

1.6 At least two Teammates shall be present while the following types of work are being performed:

a) Installation, repair or removal of lines energized at more than 600 volts.

b) Installation, repair or removal of de-energized lines or equipment such as transformers, capacitors and regulators, if a Teammate is exposed to contact with other parts energized at more than 600 volts.

c) Work involving the use of mechanical equipment, other than insulated lifts, near lines or equipment energized at more than 600 volts.

d) Any other work that exposes a Teammate to electrical hazards greater than or equal to 600 volts.

1.7 Two Teammates do not need to be present in the following operations:

a) Routine switching of circuits.

b) Work performed with insulated switch sticks or live line tools, if the Teammate is positioned so that he/she is not within reach of or otherwise exposed to energized parts.

c) Emergency repairs necessary to safeguard the general public, as long as approved tools and proper protective equipment are used.

1.8 No Teammate shall approach or take any conductive object without an insulated handle closer to exposed energized parts than the clearances set forth in the Minimum Approach Distance Table unless:

a) The Teammate is insulated from the energized part.

b) The energized part is insulated from the Teammate and any other conductive object at a different potential.

c) The Teammate is insulated from any other conductive object, as during live line work.

1.9 Teammates shall avoid working on circuits or equipment from a position that a shock or slip might bring Teammates body toward exposed energized parts. Whenever practicable, work on energized lines and equipment shall be performed from below.

1.10 When connecting de-energized equipment or lines to an energized circuit by means of a conducting wire or device, Teammate shall first attach the wire to the de-energized part. When disconnecting, Teammates shall remove the source end first. Loose conductors shall be kept away from exposed energized parts.

1.11 Teammates shall immediately report to the nearest Supervisor any defective line, apparatus, tool or other condition which, in their judgment, may be dangerous either to persons or property or likely to interrupt or delay service.

1.12 Teammates shall use extreme caution when removing or replacing fuses which are energized on either side. Cartridge fuses shall be removed and replaced with approved fuse pullers, fuse tongs or rubber gloves. Screwdrivers, pliers, etc., shall not be used for this purpose.

1.13 Extreme caution shall be exercised when handling common neutral conductors, as high current may be encountered. Whenever needed, temporary jumpers of adequate size shall be properly connected and secured before energized equipment grounds and energized circuit neutrals are opened.

2.0 Qualified Observer-

A teammate of a level 3.5 apprentice or higher shall be identified to act as a Qualified Observer to ensure clearances are maintained, PPE, and effective cover-up is installed while gloving anything over 600 volts. This shall be documented in the JHA.

2.1 A Qualified Observer shall be designated to provide timely warning while working:

- On or within the minimum approach including extended reach, of energized conductors or equipment (systems at and above 600V);
- When using mechanical mobile equipment near energized conductors;
- When moving energized conductors.

2.2 A Qualified Observer is defined as an electrically qualified worker that can identify all hazards present to the crew working energized conductors. The Qualified Observer shall be capable of:

- Distinguishing exposed live parts;
- Identify nominal voltages
- Determine minimum approach distances;
- Knowing safe work practices for working on, or near, energized lines and equipment;
- Recognize electrical hazards to which workers will be exposed and skills and techniques to control those hazards;
- Rendering immediate assistance in case of an accident

2.3 The Qualified Observer shall not perform other duties and all work shall stop if the Qualified Observer can no longer perform observer duties.

3.0 Definitions

**Automatic circuit recloser** - A self-controlled device for automatically interrupting and reclosing an alternating-current circuit, with a predetermined sequence of opening and reclosing followed by resetting, hold closed, or lockout.

**Barricade** - A physical obstruction such as tapes, cones, or A-frame type wood or metal structures that provides a warning about, and limits access to, a hazardous area.

**Barrier** - A physical obstruction that prevents contact with energized lines or equipment or prevents unauthorized access to a work area.

**Bond** - The electrical interconnection of conductive parts designed to maintain a common electric potential.

**Bus** - A conductor or a group of conductors that serve as a common connection for two or more circuits.

**Bushing** - An insulating structure that includes a through conductor or that provides a passageway for such a conductor, and that, when mounted on a barrier, insulates the conductor from the barrier for the purpose of conducting current from one side of the barrier to the other.

**Cable** - A conductor with insulation, or a stranded conductor with or without insulation and other coverings (single-conductor cable), or a combination of conductors insulated from one another (multiple-conductor cable).

**Cable sheath** - A conductive protective covering applied to cables.

**Circuit** - A conductor or system of conductors through which an electric current is intended to flow.

**Clearance (between objects)** - The clear distance between two objects measured surface to surface.

**Clearance (for work)** - Authorization to perform specified work or permission to enter a restricted area.

**Conductor** - A material, usually in the form of a wire, cable, or bus bar, used for carrying an electric current.

**Covered conductor** - A conductor covered with a dielectric having no rated insulating strength or having a rated insulating strength less than the voltage of the circuit in which the conductor is used.

**Current-carrying part** - A conducting part intended to be connected in an electric circuit to a source of voltage. Non-current-carrying parts are those not intended to be so connected.

**Deenergized** - Free from any electrical connection to a source of potential difference and from electric charge; not having a potential that is different from the potential of the earth.

**Designated Observer (designated teammate)** - An employee (or person) who is assigned by the employer to perform specific duties under the terms of this subpart and who has sufficient knowledge of the construction and operation of the equipment, and the hazards involved, to perform his or her duties safely.

**Electric line truck** - A truck used to transport personnel, tools, and material for electric supply line work.

**Electric supply equipment** - Equipment that produces, modifies, regulates, controls, or safeguards a supply of electric energy.

**Electric utility** - An organization responsible for the installation, operation, or maintenance of an electric supply system.

**Enclosed space** - A working space, such as a manhole, vault, tunnel, or shaft, that has a limited means of egress or entry, that is designed for periodic employee entry under normal operating conditions, and that, under normal conditions, does not contain a hazardous atmosphere, but may contain a hazardous atmosphere under abnormal conditions.

**Energized (alive, live)** - Electrically connected to a source of potential difference, or electrically charged so as to have a potential significantly different from that of earth in the vicinity.

**Energy source** - Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal, or other energy source that could cause injury to employees.

**Entry** - The action by which a person passes through an opening into an enclosed space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

**Equipment (electric)** - A general term including material, fittings, devices, appliances, fixtures, apparatus, and the like used as part of or in connection with an electrical installation.

**Exposed** - Exposed to contact (as applied to energized parts). Not isolated or guarded.

**Fall restraint system** - A fall protection system that prevents the user from falling any distance.

**Ground** - A conducting connection, whether planned or unplanned, between an electric circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

**Grounded** - Connected to earth or to some conducting body that serves in place of the earth.

**Guarded** - Covered, fenced, enclosed, or otherwise protected, by means of suitable covers or casings, barrier rails or screens, mats, or platforms, designed to minimize the possibility, under normal conditions, of dangerous approach or inadvertent contact by persons or objects.

**High-power tests** - Tests in which the employer uses fault currents, load currents, magnetizing currents, and line-dropping currents to test equipment, either at the equipment's rated voltage or at lower voltages.

**High-voltage tests** - Tests in which the employer uses voltages of approximately 1,000 volts as a practical minimum and in which the voltage source has sufficient energy to cause injury.

**Insulated** - Separated from other conducting surfaces by a dielectric (including air space) offering a high resistance to the passage of current.

**Insulation (cable)** - Material relied upon to insulate the conductor from other conductors or conducting parts or from ground.

**Isolated** - Not readily accessible to persons unless special means for access are used.

**Line-clearance tree trimming** - The pruning, trimming, repairing, maintaining, removing, or clearing of trees, or the cutting of brush, that is within the following distance of electric supply lines and equipment.

**Electric supply lines** - Conductors used to transmit electric energy and their necessary supporting or containing structures. Signal lines of more than 400 volts are always supply lines within this subpart, and those of less than 400 volts are considered as supply lines, if so run and operated throughout.

**Manhole** - A subsurface enclosure that personnel may enter and that is used for installing, operating, and maintaining submersible equipment or cable.

**Minimum approach distance** - The closest distance an employee may approach an energized or a grounded object.

**Personal fall arrest system** - A system used to arrest an employee in a fall from a working level.

**Qualified employee (qualified person)** - An employee (person) knowledgeable in the construction and operation of the electric power generation, transmission, and distribution equipment involved, along with the associated hazards.

**Switch** - A device for opening and closing or for changing the connection of a circuit. In this subpart, a switch is manually operable, unless otherwise stated.

**System operator** - A qualified person designated to operate the system or its parts.

**Vault** - An enclosure, above or below ground, that personnel may enter and that is used for installing, operating, or maintaining equipment or cable.

**Vented vault** - A vault that has provision for air changes using exhaust-flue stacks and low-level air intakes operating on pressure and temperature differentials that provide for airflow that precludes a hazardous atmosphere from developing.

**Voltage** - The effective (root mean square, or rms) potential difference between any two conductors or between a conductor and ground. This subpart expresses voltages in nominal values, unless otherwise indicated. The nominal voltage of a system or circuit is the value assigned to a system or circuit of a given voltage class for the purpose of convenient designation. The operating voltage of the system may vary above or below this value.

**Positive control of a conductor** - Means to have complete and deliberate control over a conductor, ensuring that its movement, manipulation, or connection is managed safely and precisely, typically by using proper tools, techniques, and safety procedures to prevent accidental contact or unintended electrical discharge.

## Rule 702. . . . . Qualified Personnel

1.0 These requirements shall apply in all cases:

- 1.1 Only qualified Teammates may work on electrical circuits, parts, or equipment that have not been de-energized and grounded. Non-qualified Teammates may assist in electrical tasks as long as they are not subject to handling any energized circuit, part, or equipment.
- 1.2 Qualified Teammates shall be trained in the recognition of electrical hazards, techniques to distinguish energized components and their nominal voltages and clearance use of special precautionary measures, insulating and shielding devices, PPE, and insulated tools.
- 1.3 All Teammates, whether qualified or not, who face a potential risk for electrical shock, shall be trained in all aspects of electrical safety including safety-related work practices, job-specific safety requirements, lockout/tagout procedures, and proper voltage clearances. This shall be covered and documented in JHA/Job Briefing.

2.0 Training shall occur at the time of new hire orientation, annually, and as necessary to ensure Teammate compliance with safety rules and policies. Training shall be documented and retained as part of the Teammate's permanent record.

- 2.1 Retraining shall occur when it is evident that a Teammate is non-compliant, demonstrates a lack or deficiency of skill, or after a near-miss incident.
- 2.2 All near-miss incidents shall be evaluated and the Team Fishel policy examined to ensure the policy addresses issues found as a result of a near-miss condition.

## Rule 703. . . . . .Flexible Cords

1.0 These requirements shall apply in all cases:

- 1.1 Only factory-assembled cord sets should be used.
- 1.2 Only extension cords that are 3-wire type and marked with a designation code for hard or extra-hard usage shall be used.
- 1.3 Teammates should only use cords, connection devices, and fittings that are equipped with strain relief.
- 1.4 Teammates should remove cords from receptacles by pulling on the plugs, not the cords.
- 1.5 Teammates should continually audit cords on-site. Any cords found not to be marked for hard or extra-hard use, or which have been modified, must be taken out of service immediately.
- 1.6 Flexible cords must connect to devices and to fittings in ways that prevent tension at joints and terminal screws. Flexible cords are finely stranded for flexibility, so straining a cord can cause the strands of one conductor to loosen from under terminal screws and touch another conductor.
- 1.7 A flexible cord may be damaged by door or window edges, by staples and fastenings, by abrasion from adjacent materials, or simply by aging. If the electrical conductors become exposed, there is a danger of shocks, burns, or fire.
- 1.8 The OSHA construction standard requires flexible cords to be rated for hard or extra-hard usage. These ratings are derived from the National Electrical Code, and are required to be indelibly marked approximately every foot along the length of the cord.
- 1.9 Extension cords must be 3-wire type so they may be grounded, and to permit grounding of any tools or equipment connected to them.

## Rule 704. . . . . Ground Fault Circuit Interrupters (GFCI's)

1.0 OSHA requires that all 120 volt, single phase, 15 and 20 amp receptacle outlets on construction sites, which are not part of the permanent wiring of the building or structure and which are used by Teammates, to have approved GFCI's for personal protection.

- 1.1 If a permanent outlet does not have a GFCI, a temporary one must be placed between the outlet and the equipment cord.

2.0 Most generators are equipped with a GFCI. If the generator does not have a GFCI, one must be obtained and placed between the generator and the equipment being used.

3.0 The use of GFCI's and cord inspection is the only approved method of electrical equipment protection in use by Team Fishel. Inspection of all GFCI's must be performed daily, before use.



**Rule 705. . . . . .Power Lines**

1.0 Before work begins, a job briefing shall be held and documented with all Teammates to orient each Teammate as to:

- 1.1 the hazards associated with the job;
- 1.2 the work procedures involved;
- 1.3 any special precautions to be taken;
- 1.4 all energy source controls;
- 1.5 required personal protective equipment (PPE); and all specialized safety equipment to be used and
- 1.6 nearest medical facility.

2.0 Teammates not trained and authorized to work near exposed energized or de-energized overhead lines must stay a minimum of 10 feet away from any unguarded equipment.

- 2.1 Teammates working on or near energized electrical lines as part of aerial lift operations may be subject to other clearance distances. These distances would be defined as part of an authorized Teammates training requirements.
- 2.2 Unqualified Teammates must maintain 10 feet plus 4” clearance for every 10KV over 50KV.

3.0 Unless a vehicle or mechanical equipment is designed and rated for aerial operations near energized parts, lines or equipment, they must maintain a minimum safe distance of 10 feet from an overhead line or per the chart below.

- 3.1 Unqualified Teammates for voltages 50KV or below shall maintain a clearance distance of 10 feet.
- 3.2 Unqualified Teammates voltage over 50KV shall maintain 10 feet of clearance plus 4” for every 10KV over 50kV.

| Nominal System Voltage | Minimum Rated Clearance |
|---|---|
| 0-50kV | 10 feet |
| 51-200kV | 15 feet |
| 201-300kV | 20 feet |
| 301-500kV | 25 feet |
| 501-750kV | 35 feet |
| 751-1000kV | 45 feet |

4.0 Operators of heavy equipment, dump trucks, and cranes need to exercise extreme caution when working near power lines. The signal person working with them also must be constantly alert under these conditions.

- 4.1 Vehicles in transit with structure lowered may reduce clearance to 4 feet for voltage. With voltages less than 50KV clearance shall be increased 4” for every 10KV over 50KV.
- 4.2 A person shall be designated to observe clearance of equipment and give timely warning for all operations where it is difficult for the operator to maintain the desired clearance by visual means.

5.0 Teammates must avoid touching equipment, guy wires, or loads when they are located near power lines.

6.0 When a ladder is needed, only a sturdy ladder made of fiberglass shall be used. Aluminum or Wood ladders conduct electricity and are prohibited from use. Rubber feet or end caps give added protection since they are non-conductive and won’t skid.

7.0 Teammate(s) must always use the proper PPE when working on or near power lines. This includes a hard hat, safety glasses, appropriate high voltage gloves, sleeves, approved clothing (100% fire retardant shirts, boots with a EH rating or Teammate will be provided overshoes that do not have EH Rated Boots).

8.0 All field Teammates must remove all jewelry of all types when exposed to mechanized equipment or energized facilities. rings, and metal wristwatches. Gold and silver are excellent conductors of electricity and can make a Teammate part of a live circuit.Teammates should avoid wearing belts with large metal belt buckles. Long hair must be restrained to avoid unnecessary risk.

9.0 If a power line is hit, the following instructions apply.

- 9.1 If the Teammate is in the equipment, he/she should stay there. He/she will be safe from electrical shock unless he/she tries to get out.
- 9.2 Teammates should stay where they are and wait for rescue workers unless the equipment is on fire. Teammates should not try to move the equipment away from the power line.
- 9.3 A designated Teammate should call the power company immediately to shut off the power, and call for medical help if there are injuries.
- 9.4 People should be kept away from the load, guy wires, equipment, and anything in contact with the equipment, all of which could be conducting a deadly amount of electricity.
- 9.5 If a Teammate must get out of the equipment because of fire or other danger, he/she should jump free rather than step off. Teammates should never touch a grounded surface and equipment that is contacting a power line at the same time.
- 9.6 Because the earth in the area of a power line contact may carry a dangerous variance in voltage, it is safest to hop or shuffle away slowly. Ref. Rule 10.0 (Step Potential)

10.0 All overhead lines shall be considered energized unless and until the owner of the line indicates it is not energized and it has been visibly grounded.

11.0 Teammates should never touch or go near a fallen power line, or anything in contact with a power line. Teammates should call the power company to de-energize the line and then call emergency services.

12.0 In case of an electrical fire, the fire department should be contacted immediately. Water should never be used to put out an electrical fire. Instead, a dry chemical extinguisher or CO2 should be used.

13.0 If there are electrical injuries, 911 should be contacted immediately. If the Teammate is free from the power line, check the following:

- 13.1 Breathing: mouth-to- mask resuscitation, or CPR, should be administered if needed.
- 13.2 Shock: signs include cold or clammy skin, weakness, shallow breathing, and rapid pulse. The Teammate should be kept horizontal and warm until medical help arrives.
- 13.3 Burns: minor burns can be cooled with cold, running water. Teammates should not touch burns, break blisters, or remove burned clothing; they should seek medical help. Electrical burn damage may not be readily apparent. Serious and/or life threatening injury could have occurred internally.

14.0 Making Connections

- (1) Connecting. In connecting deenergized equipment or lines to an energized circuit by means of a conducting wire or device, an employee shall first attach the wire to the deenergized part;
- (2) Disconnecting. When disconnecting equipment or lines from an energized circuit by means of a conducting wire or device, an employee shall remove the source end first; and
- (3) Loose conductors. When lines or equipment are connected to or disconnected from energized circuits, an employee shall keep loose conductors away from exposed energized parts.

## Rule 706. . . . . Batteries

1.0 Only authorized Teammates shall maintain batteries, battery workstations and storage rooms.

2.0 Teammates connecting, disconnecting, handling, adding acid to, charging or testing batteries must wear face shields, aprons, and acid resistant gloves.

3.0 A chemical burn first aid station or portable eye wash station must be located within 25 feet of a storage battery location. Portable eye and face wash facilities will be carried and be ready for use on any truck transporting batteries. When portable eye and face wash facilities are used, the tank shall be refilled and tested. Eye wash solution in bottles will be replaced annually.

4.0 Smoking, lighted torches, etc. is not permitted around batteries. A “NO SMOKING OR OPEN FLAMES” sign must be posted where batteries are being stored, charged, or repaired.

5.0 Cleaning batteries or terminals with brushes or other devices that may short out the cell is not permitted. A spark resulting from a short across the terminals could cause the hydrogen-oxygen mixture in the cell to ignite and cause the battery to explode.

6.0 When installing or removing intercell connectors on the battery, the wrenches used must be insulated or taped to prevent accidental shorting of the cell.

7.0 Adequate ventilation will be provided in the battery workstation area. The battery area will be kept clean at all times and shall not be used as a storage area.

8.0 When transporting batteries in a truck, the batteries must be secured to prevent overturning or shifting due to movement of the truck.

9.0 Caution must be taken when adding water to storage batteries.

## Rule 707. . . . . Confined or Enclosed Work Spaces

1.0 Teammates may not work in any enclosed space that contains energized parts unless illumination is provided to allow Teammates to work safely.

2.0 Teammates working in a space that contains exposed energized parts shall be provided with and use protective shields, barriers, or insulating devices that protect them from inadvertent exposure.

3.0 Conductive material that could come in contact with a Teammate shall be handled in such a manner as to prevent the Teammate from contacting any exposed circuit or live part during installation. Where long conductor objects such as pipes and and/or ducts must be handled they must be isolated from any live circuits by blanketing, isolating, or insulating.

4.0 Qualified Teammates who must perform work in a closed environment must comply with the confined space rules outlined in Section 9 of this manual.

## Rule 708. . . . . Dielectric Rubber Glove and Sleeve Testing

1.0 All Rubber goods testing must be completed by a 3rd party testing facility.

- 1.1 Rubber gloves shall be given an air test daily before use and immediately following any incident that could have caused damage. The manual glove inflator is the preferred testing method. Test gloves by rolling the cuff tightly to Compress air within the glove if a manual glove inflator is not available.
- 1.2 Rubber gloves with defects shall not be used. Defective gloves shall be immediately taken out of service; all fingertips cut off and disposed of.

1.3 Rubber gloves shall be dielectrically tested every six months. When tested, the rubber gloves shall be stamped with an expiration date that will allow for six month usage. Areas that wish to advance the testing schedule are free to do so.

1.4 Rubber sleeves shall be dielectrically tested every twelve months. Areas that choose to advance this testing schedule are free to do so.

1.5 When tested, the rubber sleeves shall be stamped with an expiration date that will allow twelve (12) months usage.

## Rule 709. . . . . Insulating Protective Equipment- Use

1.0 Insulated rubber gloves shall be rated for the maximum phase to ground; secondary or primary voltage for the circuits and equipment being worked as follows:

| |
|---|
| **Class 0** - Maximum use voltage of **1,000 volts** --/-- AC/proof tested to **5,000 volts AC** |
| **Class 1** - Maximum use voltage of **7,500 volts** --/-- AC/proof tested to **10,000 volts AC** |
| **Class 2** - Maximum use voltage of **17,000 volts** --/-- AC/proof tested to **20,000 volts AC** |
| **Class 3** - Maximum use voltage of **26,500 volts** --/-- AC/proof tested to **30,000 volts AC** |
| **Class 4** - Maximum use voltage of **36,000 volts** --/-- AC/proof tested to **40,000 volts AC** |

1.1 Rubber gloves and sleeves shall be worn properly when working on or within 5 feet of any electrical equipment energized at or over 600 volts.

1.1.1 All apprentices shall wear both rubber gloves and sleeves at all times within 10ft of any voltages over 600 volt.

1.1.2 Rubber gloves shall be worn cradle to cradle and or ground to ground and anytime a conductor is handled on the ground when connected to any potential or source.

1.1.3 Sleeves are not required for overhead switching or grounding operations if using an approved rated/tested hotline tool unless the host utility requires the use of sleeves.

1.2 Metal surfaces (cross-arms, cross-arm braces or transformer cases, etc.) which are not effectively grounded, and may have potential to become energized from 600 to 15,000 volts.

1.3 Working during wet, stormy weather within five feet of any conductor or equipment which may become energized at any voltage.

1.4 Opening or closing a fuse door on cutouts even when using an approved switch stick. (Exception to the previous statement - a properly maintained, heavy-duty fiberglass Extendo stick that has been tested and labeled with a test date may be used while standing on the ground without rubber gloves and sleeves).

1.5 Low-voltage Class 0 (1 KV) insulated rubber gloves with glove protectors may be used for secondary voltages. Use of these gloves shall require approval by management and the Health & Safety department.

1.6 Teammates shall wear insulated rubber gloves with protectors when connecting or disconnecting grounded systems.

1.7 When handling system neutral in energized or ungrounded circuits, insulated rubber gloves with protectors shall be worn.

1.8 Specialized electronic and control instrumentation and circuits may be worked on without wearing insulated rubber gloves with the Supervisor's approval, provided that

the tools and test equipment used are adequately insulated to prevent electrical shock and short circuit, and that they are inspected prior to each use.

Insulated rubber gloves with glove protectors shall be worn operating gang-operated air break switches in energized circuits that have handles which are manually operated from the ground. Feet shall be kept as close together as possible and near the pole. An air break switch shall be operated only when the handle is properly grounded.

| Class of equipment | Maximum use voltage 1 AC rms | Retest voltage 2 AC rms | Retest voltage2 DC avg |
|---|---|---|---|
| 00 | 500 | 2,500 | 10,000 |
| 0 | 1,000 | 5,000 | 20,000 |
| 1 | 7,500 | 10,000 | 40,000 |
| 2 | 17,000 | 20,000 | 50,000 |
| 3 | 26,500 | 30,000 | 60,000 |
| 4 | 36,000 | 40,000 | 70,000 |

*1 The maximum use voltage is the ac voltage (rms) classification of the protective equipment that designates the maximum nominal design voltage of the energized system that may be safely worked. The nominal design voltage is equal to the phase-to-phase voltage on multiphase circuits. However, the phase-to-ground potential is considered to be the nominal design voltage if:*

*(1) There is no multiphase exposure in a system area and the voltage exposure is limited to the phase-to-ground potential, or*

*(2) The electric equipment and devices are insulated or isolated or both so that the multiphase exposure on a grounded wye circuit is removed.*

## TRANSMISSION AND DISTRIBUTION WORK

### Rule 710 . . . . . .Insulated Protective Equipment

1.0 Teammates shall not touch or work on any energized lines or equipment except when wearing protective equipment for the voltage to be contacted.

2.0 Whenever any part of a Teammates' body may touch a conductor, or if a Teammate is to handle a conductive device or tool within the minimum working and clear hot-stick distances, Teammate shall cover, with insulating protective equipment, the conductor, conductive device or tool within reach of any part of the body except that part of the conductor or equipment on which Teammate is working. (See Minimum Approach Distance Chart)

3.0 When working on an energized line or apparatus, including the installation or removal of protective devices, work should be done from below if possible.

4.0 When applying insulating protective equipment, Teammates shall always protect the nearest and lowest wires first, providing protection as progress is made. When removing insulating protective equipment, the reverse order shall be maintained.

5.0 Flexible blankets should not be used on the ground without protecting them from physical damage and moisture by means of a tarpaulin canvas or protective mat.

6.0 Line hoses, hoods, blankets, etc., shall be inspected before each use. Hoses, hoods, blankets and other cover-up materials shall be maintained in a clean, safe condition.

6.1 Blankets shall be tested annually and stamped with the test date. These dates must be legible, if dates are illegible blankets must be retested.

7.0 All insulating protective equipment shall be thoroughly cleaned (with approved cleaning agents) periodically, as needed, to remove foreign substances, and shall be wiped clean of oil, grease or other damaging substances as soon as practicable.

8.0 Flexible protective devices shall be stored in special compartments, on trucks and elsewhere, where they will not be subjected to damage from tools, sunlight or other equipment.

9.0 There shall be a sufficient quantity of insulating protective devices as may be required by the Teammate or crew for the job being done.

10.0 Suitable lines and tool bags shall be used for raising and lowering materials, tools and protective equipment. Teammates shall not throw anything from a pole or structure or permit anything to be thrown to them.

11.0 Digger Derrick pole tamp hoses must be made up with dielectric hoses.

## Rule 711 . . . . . .Working on De-energized Lines and Equipment

1.1 All conductors and equipment to be de-energized and grounded shall be treated as energized until tested with an approved voltage detector.

1.2 New Construction: New lines or equipment may be considered de-energized and worked as such where:

a) The lines or equipment are grounded, or

b) The hazard of induced voltage is not present and adequate clearances or other means are implemented to prevent contact with energized lines or equipment and the new lines or equipment. Not crossing over or under any energized conductors that could induce voltage onto the cable.

## Rule 712 . . . . . .Utility Poles

1.0 Pole storage and handling

1.1 A margin of at least 10 feet around poles stored in a pole yard will be kept free of grass, weeds, and debris.

1.2 Poles should be positioned so they will not roll and/or shift accidentally.

1.3 Poles must not be stored with cross arms, braces or other hardware attached.

1.4 Authorized Teammates shall exercise extreme caution and be aware of hazards that may exist when climbing on a pole pile during loading, unloading, handling or inspecting.

1.5 Whenever poles are to be loaded, unloaded, installed or removed, a minimum of two Teammates will be required.

1.6 Teammates must roll poles away from them, using cant hooks or bars.

1.7 Rolling or shifting poles must not be caught with cant hooks. Roll stops should be positioned prior to moving the pole.

2.0 Loading and unloading poles

2.1 These basic practices must be followed when loading and unloading poles.

2.1.1 Teammates will wear suitable working gloves and PPE when handling poles.

2.1.2 Poles will be loaded and unloaded with appropriate equipment, such as a crane or derrick.

2.1.3 The load should be inspected to ensure that no dangerous situation exists, such as broken bands, inadequate stakes, or shifted loads.

2.1.4 Truck and/or trailer wheels shall be chocked.

2.1.5 Poles should be kept under control at all times by the use of winch lines, load binders, taglines, and additional and/or stronger stakes.

2.1.6 Skids, if used, must be secured to the transporting vehicle.

2.1.7 Bands should be cut while the Teammate is standing on the ground. If the poles are bound in layers, the Teammate should cut bands from the top down.

2.1.8 The Teammate should be alert for shifting loads.

2.1.9 One Teammate must be designated to give hand signals. In most cases, hand signals will be given by the Teammate installing the grab hook.

2.1.10 Where hazards to Teammates exist, taglines or other suitable devices shall be used to control loads being handled by hoisting equipment.

2.1.11 Teammates must not pass, stand next to, or under a suspended load, or over or under a loaded winch line.

2.1.12 Wedges, bars and pipes should be used to prevent poles from rolling onto Teammates.

2.1.13 Poles loaded on trailers will not be left unattended unless the load has been secured.

3.0 Transporting poles

3.1 After poles have been loaded onto the trailer, they should be bound together and to the bolsters with at least a 3/8-inch chain or its equivalent web strap or cable.

3.2 Where necessary, one Teammate should assist the driver by watching traffic from the side and rear to be sure there is ample clearance for the load of poles when backing, turning corners, entering highways or crossing intersections. This is mandatory when truck and load exceed 75 feet.

3.3 Appropriate warning devices shall be used in accordance with any applicable state or federal laws when transporting poles that extend four or more feet beyond the rear of the vehicle.

3.4 Poles will not be transported at night except in emergencies.

3.5 Transporation of poles must be in accordance with state and federal laws. Know the length and pilot vehicle requirements for your area.

4.0 Gin pole method

4.1 When setting extra-heavy poles or those 45 feet or longer, the Teammate should attach a tackle block to an existing pole or to a pole set for the purpose of raising the new pole with the tackle rather than using the pike pole method.

4.2 The gin pole, which is to be used to raise the new pole, must be guyed sufficiently with no less than a 5/8-inch rope to hold it erect under the strain of the load.

4.3 If a snatch block is used at the bottom of the gin pole and the new pole is raised by a truck, a temporary guy shall be run from the gin pole to a substantial anchor to prevent the gin pole from slipping at the ground line, or the gin pole shall be set in a hole measuring one to two feet deep.

5.0 Distribution of poles along streets or highways

5.1 When poles are distributed along streets or highways, they must be laid near the curb or in parkways between the curb and sidewalk where they will not interfere with traffic, driveways or walkways.

5.2 When poles are laid on an incline, they should be blocked to prevent rolling.

5.3 Danger signs and/or warning lights will be used as required to warn the public of their presence. Poles prestaged shall be adequately identified with warning devices to warn the public of their presence. Example. (cones or caution tape)

5.4 Poles will not be placed where they will interfere with drainage.

6.0 Pole and anchor holes

6.1 All open pole or anchor holes will be covered and secured when unattended.

7.0 Installing and removing poles

7.1 Poles that are in questionable condition or at less than the required depth shall be supported to withstand any altered strain that may be placed on them and to support the weight of the Teammates who are to work on them.

7.2 Care will be taken to ensure that the pole will not be top heavy when removed or when being set. Precaution will also be taken to eliminate a hazard should the top of the pole separate from the butt.

7.3 Teammates handling the butt of the pole shall wear the appropriate class of rubber gloves for the voltage being worked whether or not cant hooks, peaveys or slings are used. Teammates shall wear rubber sleeves when deemed necessary and sleeves appropriate for the voltage being worked whether or not cant hooks, peaveys or slings are used.

7.4 All members of the pole crew who are not actually engaged in the installation or removal of a pole should stand clear of the work area.

7.5 Whenever possible, a designated Teammate will watch the opposite angle of an Operator's line of sight.

7.6 All pedestrians and traffic shall be kept at a safe distance or rerouted around the work site while a pole is being installed or removed.

7.6.1 Proper traffic control methods will conform to Team Fishel's requirements and to the applicable local, state, and federal requirements.

7.7 Where hazards to Teammates exist, taglines or other suitable devices must be used to control loads being handled by hoisting equipment.

7.8 When poles are being set in energized primary, pole and line should both be covered prior to setting pole to protect against incidental contact from energized line. Energized lines are any line with voltages over 600 volts.

7.9 When work is being done in proximity to energized equipment or power lines, all Teammates will keep clear of the pole truck and trailer. The truck must be grounded or barricaded.

7.10 When poles or anchors are removed, poles should be pulled using a pole puller or pole must be excavated completely around to remove any type of pulling tension when using a digger derrick and holes shall be properly covered or barricaded until they can be properly backfilled.

7.11 Until a pole is positively secured from moving against an energized conductor, no one shall step on or off the truck, nor shall a Teammate standing on the ground touch any part of the truck without using the appropriate Class of rubber gloves and sleeves.

7.12 Ground wires shall not be attached on the pole higher than 10 feet from the ground when setting in or near energized conductors.

7.13 Before work begins: the fire extinguisher, rubber gloves shall be removed from truck and placed where they are readily accessible and clear of step potential outside of work zone.

7.14 Teammates engaged in handling or working on poles shall wear suitable gloves and a long sleeve FR shirt with the sleeves rolled down and cuffs buttoned and tucked in.

7.15 Teammates shall not stand or pass under a suspended load. Teammates shall not stand adjacent to or over or under a loaded winch line.

7.16 Hoisting equipment operators shall accept signals only from the Teammate specifically designated. The operator shall obey a stop signal from anyone.

8.0 Climbing poles

8.1 Only trained and authorized Teammates shall be permitted to climb poles. When one is climbing there shall be another qualified teammate on the ground with readily available gear to perform hurt man rescue if needed. This shall be noted on the JHA.

8.2 Before climbing poles, Teammates should survey the situation, keeping in mind what is to be done and where to climb. A careful examination should be made of the condition of the pole, including sounding with a hammer to determine if the butt is rotten and if the pole is safe to climb.

8.3 If a more thorough inspection is needed, digging around the butt of the pole or drilling is required.

8.4 Teammates shall determine that the poles are in good condition and are supported in such a way as to safely support them before climbing. Pikes should not be used for support while Teammates are climbing or working on poles.

8.5 Before climbing, the Teammate must:

- be trained on pole top rescue techniques;
- determine what circuits are energized and at what voltage;
- determine the types and positions of circuits and the direction of feed;
- inspect climbing equipment to ensure it is in good condition;
- remove signs, tacks or nails that may hamper safe climbing; and
- visually inspect all ground and neutral connections associated with the equipment mounted on the pole.

Any equipment with a broken or loose ground will be considered energized.

8.6 A hand-line shall be taken aloft whether climbing or using an aerial device.

8.7 When using a chainsaw while climbing, Teammate must have both the Buck Squeeze and positioning strap in use before attempting to top any pole.

9.0 While climbing, the Teammate shall:

9.1 Utilize a fall restraint device (such as buck or super squeeze) at all times. Free climbing is prohibited.

9.2 Climb on the high side of a leaning pole whenever possible.

9.3 Take precautions to avoid weather cracks, checks, hard places, etc, to prevent climber cut out.

9.4 Avoid grasping pins, cross arm braces, brackets or other attachments that might pull loose.

9.5 Not stand on mailboxes, signs, fire alarm boxes or other equipment that may be attached to the pole or located near it.

9.6 Not race up and down poles.

9.7 Not climb or descend a pole with one end of the safety unsnapped from the D-ring.

9.8 Not climb a pole with conductors attached to the safety belt.

9.9 Not slide down guy wires, metal poles, pipes, etc. If it is impossible to use climbers when descending, ladders or aerial baskets must be used.

9.10 When two or more Teammates are ascending a pole the second Teammate must not start climbing until the first Teammate is in a safe position. Then, the first Teammate must not descend the pole until the second Teammate is on the ground.

**Rule 713 . . . . . Handlines, Droplines, Taglines & Ropes**

1.0 When any work is to be performed on a pole, tower or structure that requires the raising or lowering of materials, or when the Teammate is subject to unusual hazards, a handline shall be carried aloft and securely fastened.

2.0 When work is being performed aloft using mechanical equipment such as a bucket truck, back yard machine, etc, the drop zone should be identified, discussed and documented on the JHA and a physical barrier installed to prevent entry.

2.1 If entry is required into any dropzone, all work above should be stopped and communicated prior to entry.

2.0 A dropline may be used for transmission line climbing inspections, service work and light duty work in substations.

3.0 Precaution must be taken so that the line does not become entangled or caught by a moving vehicle. Teammates should never clip a line to the D-ring and fall protection devices.

4.0 All material must be lowered or raised safely using a handline or dropline (some material is too heavy to utilize hand line).

5.0 Large items being raised or lowered must be tied securely. Small items should be raised or lowered in a canvas bag.

6.0 Taglines should be used to guide materials around or over cross arms or other protruding construction. This will provide a positive means of control when equipment is being moved near energized apparatus.

7.0 Handlines or droplines shall not be suspended from primary or secondary conductors. At all work locations, an independent ½ inch rope with a suitable single roller block shall be established at every work location where work is being performed aloft.

8.0 Ropes

8.1 Use Clean Dry ropes when working in an energized work zone

8.2 Remember Knots reduce the strength of rope Approximately 50%. (depending on selected knot)

8.3 Do not exceed the rated capacity of the rope being used (refer to rope chart)

8.4 Do not exceed the rated capacity of blocks, hooks or attachments when using rope.

8.5 Hand lines must have a minimum Diameter of ½ inch.

8.6 Exercise Care to keep hand lines clear of vehicle and pedestrian traffic when working aloft.

8.7 Inspect rope for worn or frayed strands

8.8 Store rope in a cool dry place to prevent deterioration and damage.

**Rule 714 . . . . . Body Belts and Safety Straps**

1.0 Body belts and safety straps will be used by Teammates when they are engaged in handling wires or apparatus on any pole, tower or structure.

2.0 The safety strap shall never be placed around pins, cross arm braces or above the top arm where the arm is near the top of the pole, unless a substantial extension is attached to the top of the pole.

3.0 Teammates must not fasten both safety strap snaps in the same D-ring in order to reach farther.

4.0 Teammates must visually verify that the snap is securely fastened in the D-ring each time. Teammates should not snap the safety strap to any object except a D-ring.

5.0 Teammates should not drop one end of the safety strap while working aloft with others. They should not climb or descend a pole with one end unsnapped from the D-ring.

6.0 Refer to Team Fishel's Fall Protection Policies, Section 14 of this manual for any issue not addressed here.

7.0 Personal Climbing Equipment

- 7.1 Only approved belts and approved fall protection equipment shall be used.
- 7.2 All equipment shall be inspected before each use. Any found damaged or excessively worn shall not be used.
- 7.3 Any Teammate climbing a wood pole shall use a personal fall protection device, example: buck-squeeze along with a positioning strap that will not allow a Teammate to fall more than 2'. Any Teammate climbing a steel tower shall use two safety straps to ensure they are connected to tower at all times.
- 7.4 Fall protection equipment shall have double locking snap hooks.
- 7.5 Before a Teammate trusts their weight to a climbing belt or similar device, a determination shall be made that the double locking snaps are properly engaged, and the Teammate is secure on the structure.
- 7.6 Metal hooks, chains, etc., for holding tools or tape shall not be attached to body belts. Leather or other non-conducting material shall be used for this purpose.
- 7.7 Climbers shall be inspected before each use. Damaged or excessively worn straps, or missing or broken screws, shall be replaced before climbers are used.
- 7.8 Gaffs shall be kept within safe length limits (1 ¼ inch minimum), properly shaped, sharp and free of burrs. Gaffs shall be tested for wear and shape by using a gauge recommended by the manufacturer.
- 7.9 Pole gaffs shall not be used for tree climbing.
- 7.10 Teammates shall not wear their climbers while driving, riding in vehicles, working on the ground or working on ladders (except hook ladders). Climbers shall be put on and removed as close to the pole as safety permits.
- 7.11 When climbers are stored in the truck or tool room, the sharp gaff points shall be covered with suitable gaff guards so they will not damage other equipment or cause personal injury.
- 7.12 A FR harness attached to a lanyard with a double locking snap hook shall be worn properly meeting manufactures specification while working from or riding in an aerial device. Lanyards shall be made of FR material, equipped with a double locking snap hook, deceleration device and shall be no longer than six feet.

## Rule 715 . . . . . Working Live-Line Tools

1.0 Planned work with live-line tools shall not be started during unfavorable weather.

2.0 Only tools approved by the company shall be used in live-line maintenance, All live-line tools shall be made of fiberglass and shall be visually inspected and wiped with cloth before being used. Any tools with possible defects shall be removed from service. Visible test dates shall be verified prior to use.

3.0 Before work with live-line maintenance tools is begun, the dispatcher or person having jurisdiction shall be notified. If during live-line tool work, an interruption of service occurs, the dispatcher or other person having jurisdiction shall be notified immediately.

4.0 The automatic reclosing feature of circuit interrupting devices shall be made inoperative before work begins.

5.0 Lines of #6 copper, #6 ACSR and #8A All Copperweld conductors or smaller shall be inspected prior to moving, adjusted from natural state or worked with liveline tools.

6.0 A careful check shall be made to see that the condition of the structure and lines at the point of the work is such that the job may be performed safely. In addition, the adjacent spans and structures shall be carefully checked for defects in conductors, tie wires, insulators and other equipment.

7.0 Positive control shall be maintained during the movement of any conductor. Under no circumstances shall a Teammate depend on another Teammate to hold an energized conductor clear of said Teammate.

- 7.1 Teammates shall maintain positive control of jumpers during installation and removal. At no time should any part of the jumper make contact with any unprotected difference of potential, your body or placed on the aerial lift. Mechanical jumpers are not considered insulated.
- 7.2 An ampacity reading must be taken when using any type of mechanical temporary jumper. The jumper must be of equal ampacity of the reading If being left overnight or longer a more permanent jumper of equal size must be installed.

8.0 While live-line work is in progress, no other work of any nature shall be performed on the same pole or structure.

9.0 Load break tools. Recommend the use of the S&C model, maintain a minimum of 10’ and look away prior to operating. If you must be closer than 10’ then you must wear a face shield.

10.0 Live-line tools shall never be laid directly on the ground or against sharp objects such as barbed wire fences. Special tool holders or tarpaulins shall be used for this purpose.

11.0 All live-line tools, when not in use, shall be kept in canvas bags or weatherproof boxes. These containers shall be stored in a dry place.

## Rule 716 . . . . . .Insulating Platforms

1.0 The surface of the insulated platform must be cleaned and inspected prior to each use.

2.0 When using an insulated platform on an energized installation, care must be taken to ensure nothing comes in contact with the platform that would bypass its insulating value.

3.0 When a Teammate is working on an insulated platform and is in contact with energized conductors, nothing should be passed to them by Teammates who are not insulated by the platform.

## Rule 717 . . . . . Operating Insulated Aerial Lifts

1.0 Only trained and authorized Teammates shall be permitted to operate or work near or on any aerial basket equipment

2.0 All buckets should be kept covered when not in use.

3.0 Dielectric testing on all bucket trucks will be done as required (at least annually) and Team Fishel will retain a record of the inspection.

4.0 Insulated equipment utilizing hydraulically operated booms to raise aerial baskets in which Teammates work on or near energized lines shall be equipped with upper and lower controls. The basket shall be equipped with an insulated liner.

5.0 Teammates must be knowledgeable of the rubber glove technique and bucket truck techniques, and be familiar with aerial basket equipment before being permitted to work on or near energized lines or apparatus from the aerial basket.

6.0 Teammates operating aerial basket equipment and working on or near energized lines or equipment shall wear appropriate personal protective equipment. Ref. Rule 709 (1.1)

7.0 A Teammate working alone using aerial basket equipment shall not physically contact any energized equipment above 600 volts, without the use of approved live line tools.

8.0 When a crew is using aerial basket equipment, the work must be observed by a trained Teammate on the ground capable of operating the lower basket controls in an emergency when working on conductors above 600 volts.

9.0 Teammates on the ground will have access to their rubber gloves at all times, without having to enter the vehicle. Ref. Rule 712 (7.13)

10.0 Teammates using the rubber glove technique shall not work on lines or any apparatus energized at voltages above the electrical rating of the aerial basket.

11.0 Teammates working from an aerial basket must wear an approved safety harness and lanyard. The lanyard should be attached from the harness to the boom. The lanyard must not exceed six feet in length and should have a nominal breaking strength of not less than 5,400 lbs. Consideration should be given to total deployment length of shock absorbing lanyards. The harness shall be inspected and free of defects in both the webbing and shackles of the harness. The harness must be FR rated to perform work on energized conductors. A lineman's body belt is not approved for aerial basket equipment use.

12.0 The basket operating controls will be labeled to identify individual controls and indicate the direction of movement.

13.0 Vehicles equipped with an aerial basket will not be moved while the boom is uncradled or a Teammate is in the basket.

- 13.1 Aerial lifts equipped with a material handler/jib shall not be used in any way other than recommended by the manufacturer. Example. No side loading the jib.
- 13.2 When attaching a jib/boom tip to an energized conductor an insulated link stick/jib insert ect. must be used and tested in accordance with Rule 715 9.0, 10.0 and Appendix A 1.0.

14.0 If equipped, outriggers shall be in the down and set position whenever the boom is taken out of the cradle.

15.0 When working on or near energized equipment, Teammates should not rest the basket or boom against conductors or devices that are not covered with protective equipment.

16.0 Tools or equipment should not protrude from the basket when not in use. Hydraulic tools should be stored in a proper manner when not in use. Care should be taken to ensure the hose does not become entangled with the operating controls.

17.0 Teammates must perform all work with both feet on the floor of the bucket at all times.

18.0 While in contact with an energized apparatus, Teammates should avoid:

- 18.1 Touching any ground potential such as the pole, structure, cross arms, grounds, opposite phases, etc., with any part of their bodies.
- 18.2 Handing material or tools to Teammates on poles or structures.
- 18.3 Transferring material or tools to or from a handline attached to a pole or structure.

19.0 Teammates in a double basket piece of equipment shall not contact opposite phases, or a phase and a ground, at the same time.

20.0 Three way Communication between the Teammate in the basket and the Designated Observer on the ground is essential.

21.0 Before any Teammate makes contact with the aerial basket vehicle, they must first determine that the Teammate working in the basket and/or the boom is not in contact with any energized equipment or conductors.

## Rule 718 . . . . . .Hazardous Energy Control (Lockout/Tagout)

This section applies to the de-energizing of transmission and distribution lines and equipment for the purpose of protecting Teammates. Conductors and parts of electric equipment that have been de-energized by procedures other than those required by this section, as applicable, shall be treated as energized.

1.0 If a system operator is in charge of the lines or equipment and their means of disconnection, the following shall be observed in the order given.

- 1.1 A designated Teammate shall make a request of the system operator to have the particular section of line or equipment de-energized. The designated Teammate becomes the Teammate in charge and is responsible for the clearance.
- 1.2 All switches, disconnectors, jumpers, taps, and other means through which known sources of electric energy may be supplied to the particular lines and equipment to be de-energized will be opened. Such means will be rendered inoperable.
- 1.3 Automated and remotely controlled switches that could cause the opened disconnecting means to close will also be tagged at the point of control. The automatic or remote control feature will be rendered inoperable, unless its design does not so permit.
- 1.4 Tags will prohibit operation of the disconnecting means and will indicate that employees are at work.
- 1.5 After the applicable requirements of this section have been followed and the Teammate in charge of the work has been given a clearance by the system operator, the lines and equipment to be worked must be tested to ensure that they are de-energized.
- 1.6 Protective grounds shall be installed as required by the grounding section.
- 1.7 After the applicable requirements of this section have been followed, the lines and equipment involved may be worked as de-energized.
- 1.8 If two or more independent crews will be working on the same lines or equipment, each crew must independently comply with the requirements of this section.

2.0 To transfer the clearance, the Teammate in charge (or, if the Teammate in charge is forced to leave the worksite due to illness or another emergency, the Teammate's Supervisor) shall inform the system operator; Teammates in the crew shall be informed of the transfer; and the new Teammate in charge shall be responsible for the clearance.

3.0 Tags may not be removed unless the associated clearance has been released by the Teammate in charge. He/she must:

- 3.1 Notify Teammates under his or her direction that the clearance is to be released;
- 3.2 Determine that all Teammates in the crew are clear of the lines and equipment;
- 3.3 Determine that all protective grounds installed by the crew have been removed; and
- 3.4 Report this information to the system operator and release the clearance.

4.0 The person releasing a clearance shall be the same person that requested the clearance, unless responsibility has been transferred.

5.0 Only after all protective grounds have been removed, after all crews working on the lines or equipment have released their clearances, after all employees are clear of the lines and equipment, and after all protective tags have been removed from a given point of disconnection, may action be initiated to re-energize the lines or equipment at the point of disconnection.

6.0 If no system operator is in charge of the lines or equipment and their means of disconnection, one Teammate in the crew will be designated as being in charge of the clearance. All of the requirements of this section apply, in the order given. The Teammate in charge of the clearance shall take the place of the system operator, as necessary.

7.0 If only one crew will be working on the lines or equipment and if the means of disconnection is accessible and visible to and under the sole control of the Teammate in charge of the clearance, 1.1, 1.3, 1.4, and 1.8 of Rule 713 do not apply. Additionally, tags required by the remaining provisions of this section need not be used.

8.0 Any disconnecting means that are accessible to persons outside the control of Team Fishel (for example, the general public) shall be rendered inoperable while they are open for the purpose of protecting Teammates.

### Rule 719 . . . . . Stringing or Removing Lines Across or Adjacent to Energized Conductors

1.0 Prior to stringing or removal operations, a job briefing shall be held, setting forth the plan of operation and specifying the type of equipment to be used, grounding devices, procedures to be followed, crossover methods to be followed and clearance authorizations required.

2.0 Prior to installing or removing a conductor running parallel or across an existing energized distribution or transmission line, a competent determination shall be made by the qualified person in charge to ascertain whether dangerous induced voltage buildups will occur. When there is a possibility that dangerous induced voltage or accidental contact may exist, the following provisions shall be followed.

- 2.1 When stringing or removing lines adjacent to or crossing energized lines, the tension stringing method, or any other methods that precludes unintentional contact between the lines that are being pulled, shall be used.
- 2.2 All pulling and tensioning equipment shall be isolated, insulated or effectively grounded.
- 2.3 A ground shall be installed between the tensioner reel setup and the first structure in order to ground each bare conductor during stringing operations. All Teammates operating any tensioner, reel stand or pulling equipment that requires teammate to stand on ground SHALL be on a grounding mat. When stringing operations are underway, teammates must remain on the equipment or grounding mat until conductors are disconnected. If entry or exit is necessary you must use step potential procedures found under step and touch potential in work zone.

2.4 During stringing or removal operations, each bare conductor shall have the conductor dolly or roller grounded at the first structure adjacent to both the tensioning and pulling setup. Also the conductor dolly shall be grounded on either side of an energized line crossing.

2.5 The grounds shall be left in place until the conductor installation is completed.

2.6 Such grounds shall be removed as the last phase of aerial clean up.

2.7 Except for the moving type grounds, the grounds shall be placed and removed with an approved shotgun stick or switch stick.

2.8 All conductors shall be grounded at all dead-end or catch-off points.

2.9 A ground shall be located at each side and within 10 feet of work areas where conductors are being spliced together at ground level. The two ends to be spliced shall be bonded to each other.

2.10 Work on dead-end structures shall require grounding of all de-energized lines.

2.11 Grounds may be removed as soon as work is completed, except at deadend structures where jumpers are open must remain grounded.

2.12 When performing work from the structures, clipping crews and all others working on conductors or overhead ground conductors shall be protected by individual grounds installed at every work location.

3.0 When crossing over energized conductors in excess of 120 volts and any road crossings, guard structures shall be installed to protect accidental contact with the energized conductor or the ground due to the conductor dropping.

4.0 Where practical, the automatic reclosing feature of the circuit interrupting device shall be made inoperative on energized lines that are being crossed.

5.0 Anytime a Teammate is issued a de-energized clearance, Teammate shall visually inspect the open points of the clearance and be familiar with the boundaries of the clearance.

6.0 Guard structures shall be left in place until the conductor is clipped in on either side of the guard structure.

## Rule 720. . . . . Grounding

1.0 General

1.1 **“If it’s not grounded, it’s not de-energized!”** All lines, circuits, or equipment to be grounded shall be treated as energized at full voltage potential until they have been cleared, tested (with a specified and approved voltage testing device), tagged, and grounds installed using live-line tools.

1.1.1 Proper Personal Protective Grounding

1.1.2 Protective grounds are installed to protect Teammates from Accidental energization of facilities while work is being performed.

1.1.3 Principles that need to be understood when teaching grounding. Current flows in every available path and is inversely proportional to the resistance. (resistance goes down current goes up)

1. Grounding is for quick operation of protective devices Bonding is for the protection of workers.
2. Around 50 volts is the level of voltage that can penetrate the workers skin allowing current to flow and become a risk to workers.
3. If current flow is above 50 milliamps there is a risk to workers.

4. Any resistance introduced on a circuit, including a grounded circuit will result in a voltage drop that can be dangerous.
5. Grounding and bonding will not eliminate all current flow, the goal is to keep the energy level across a worker to within survivable limits.

1.1.4 Primary causes of accidental energization;

1. Human Error
2. Equipment failure
3. Back Feed

1.1.5 Principle of grounding is to provide a low resistance parallel path to conduct fault current around the worker to ground. Grounding alone will not protect an employee from a difference of potential in the event of accidental energization.

1.1.6 But a low resistance path will allow current to rise quickly promoting fast trip out and clearing time of circuit protection devices limiting the duration of fault current.

1.1.7 A properly installed equipotential zone should keep the employee within survivable current limits should the line become energized.

1.1.8 Protective grounds shall be inspected and installed prior to working on de-energized lines and removed prior to placing lines back in service. Teammates must understand the proper sequence of installing and removing protective grounds and equipment (ground cluster).

1.2 This work must be performed under the direction of a qualified Teammate or Supervisor.

1.3 Only install grounds when no voltage is indicated with an approved voltage testing device. Voltage testing device shall be tested before each use to ensure proper operation, this will ensure line is de-energized before grounding. Read the operating manual of your tester.

1.4 Installing personal protective grounds is considered to be live work; therefore, Minimum Approach Distance shall be maintained and all appropriate personal protective equipment shall be worn (FR Clothes, rubber gloves, safety glasses, hard hat)

1.5 The Teammate shall wear approved rubber gloves and sleeves within five foot of energized conductors over 600 volts (depending on the voltage KV of the system to be worked.) Only after equipotential zone has been established can a Teammate remove his/her rubber sleeves. (Ref. Rule 709 1.1)

1.6 Teammates will exercise care in applying grounding devices. They should position themselves to minimize exposure should an arc develop. MAD Distance.

1.7 The common neutral of a distribution circuit, the leg of a metal transmission tower, the steel pole or static/shield wire are the preferred grounding sources and shall be used. If none of these are available or conditions exist that require an alternative attachment point, the following may be used:

a) The pole ground can be used only after a visual inspection assures the ground is properly connected to the system neutral and ground rod. Wire brush the pole ground and/or all grounding connections before installing attachment.

b) A ground rod or “screw ground” may be inserted in the earth to serve as a ground source. As long as the entire length of the rod is inserted in the earth. Ground clamp shall be attached to the rod Not the handle. Teammates are not to stand near this source of grounding to avoid step potential. Ground rod shall be barricaded to prevent touch potential.

1.8 Guy wires, guy anchors, chain link fencing, pole hardware, or the like shall not be used as a ground end clamp connection for personal or equipment protective grounding.

1.9 Protective grounding equipment shall be rated and capable for conducting the available maximum fault current that could flow at the point of grounding for the time necessary to clear the fault. This equipment shall have an amperage fault greater than or equal to that of 2/0 copper. A protective ground cable must never be smaller than 2/0 copper. Transmission grounds must be a minimum fault greater than or equal to that of 4/0. Grounds must have a visible test date.

1.10 A cluster bar may be used allowing connection of three cables to phases and one cable to an earth ground, a grounded static, or system neutral. The cable to an earth ground or to a grounded static shall be a minimum 2/0 copper.

1.11 Hot line clamps and other similar electrical connectors are not approved for grounding.

1.12 Protective ground cables shall have a visual device (bright flag), and tag which identifies them.

1.13 Only system approved grounding devices shall be used for personal protection. Ground cluster bracket with spike that penetrates deeper than gaffs if climbing, 2/0 or 4/0 grounds, Copper attached to main line neutral extending below the feet of the working position with 2” staples every 6” )

1.14 Protective ground cables that have been exposed to a fault shall be removed from service.

1.15 Protective grounding cables and clamps shall be inspected prior to each use to assure they are in good working condition and in date. Protective grounds that are found not to be in good working condition, or out of date, shall be promptly removed from service. Grounding clamps must be wire brushed prior to installation.

1.16 Grounding shall not be accomplished through transformers, switches, or other devices.

1.17 When grounding bundled conductors, conductors within the bundle shall be bonded together with approved grounding devices. Spacer assemblies are not considered adequate bonding of bundled conductors.

1.18 Equipotential zone: temporary protective grounds should be placed at such locations and arranged in such manner as to prevent Teammates from being exposed to hazardous differences in electrical potential or circulating current. See grounding diagrams, scenarios (Section 9.0)

1.19 To avoid exposure to a difference of potential, rubber gloves with glove protectors shall be used. A jumper of equal current carrying capacity shall be placed across any opening in a grounded circuit before work is performed at the opening while maintaining the Minimum Approach Distance of voltage being worked. All jumpers Shall be placed using a tested live line tool.

1.20 When work is to be done on transmission lines equipped with pole gaps in the ground wires, Teammates should bridge such gaps with approved grounding devices before climbing above the gaps.

1.22 When working on de-energized lines or equipment, Teammates shall not place themselves in series with open jumpers, switches, etc. unless grounds are placed on both sides of the opening or the opening is bridged with a ground or conductor of equal current carrying capacity installed with a tested live line tool.

1.23 It is the responsibility of the Teammate in charge of the work to see that all adequate grounds are placed for the protection of the personnel performing the work, even though the tags may be in the name of another person.

1.24 When more than one independent crew requires the cable(s), conductor(s), or equipment to be de-energized, a tag for each such independent crew shall be placed on them. Where clearances for such independent crews are controlled by a designated authority, having immediate jurisdiction, or said cables, conductors, or equipment involved, only one tag need be installed.

1.25 Verification shall be obtained that all switches or other points of isolation through which electric energy may be supplied to the conductors or equipment to be worked on have been opened and are plainly tagged indicating that personnel are at work, and where the design permits, they have been rendered inoperable.

2.0 Protective grounding equipment

2.1 Only approved grounding devices shall be used for personal protection. Grounding cluster bracket, Equipotential bond, 2/0 ground, and or 4/0 ground.

2.2 Protective grounding equipment should be capable of conducting the maximum fault current that could flow at the point of grounding for the time necessary to clear the fault. This equipment shall have an ampacity greater than or equal to that of 2/0 copper.

2.3 A cluster bar may be used allowing connection of three cables to phases and one cable to an earth ground, a grounded static, or system neutral. The cable to an earth ground or to a grounded static shall be a minimum 2/0 copper.

2.4 The Teammate should wear approved rubber gloves (depending on the voltage KV of the system to be worked). Teammates can only remove sleeves once an equipotential zone has been established. See diagram 9.0

3.0 Testing

3.1 Grounding cables shall be inspected for loose connections and broken strands before each use.

3.2 Grounding cables must be tested every year and dated with test date.

3.3 Hot sticks must be tested every two years and dated with test date.

3.4 Rubber goods will be tested according to Team Fishel and OSHA standards.

4.0 Placement and removal of grounds

4.1 The line or equipment shall be tested for voltage with an approved voltage detector prior to installing the grounding cables to verify that it is de-energized.

4.2 The surfaces to which grounding cables are applied should be cleaned with a wire brush to ensure conductivity. Grounds must not be applied to painted surfaces.

4.3 Installation of protective grounds: the ground-end is always installed first and removed last. The ground-end should be connected to the system neutral, grounded static, a steel structure or a driven ground rod.

4.4 When it is not practical to install grounds at the work locations, ie cover or insulated conductors, grounds should be placed on all sides of, and as close as practical to the work location.

4.5 If adjacent grounds are placed more than three spans apart, the following procedures must be followed in addition to 4.5 above.

4.5.1 The Teammate should ground the conductor to be worked at the work location.

4.5.2 The Teammate should wear approved rubber gloves (depending on the voltage of the system to be worked).

4.5.3 Only when conditions do not allow the use of the preceding methods shall alternative methods of Teammate protection be used. Those methods may include determining the available fault current and grounding accordingly, or cutting an opening in the line.

4.5.4 All sources of backfeed shall be removed by creating a visible open point of all energy sources. A CSP transformer switch or padmount bayonet fuse does not suffice as a visible open point.

4.5.5 Before work is performed on capacitors, they shall be discharged by shorting and grounding and remain grounded until put back into service.

4.6 Protective grounding cables shall be removed in the reverse order from installation (4.3 above), with the conductor or equipment end removed by hot stick first and the ground-end last.

5.0 Removal of grounds for testing

5.1 An apparatus must be cleared and grounded in accordance with applicable rules before protective grounds are removed for testing. The following rules shall apply.

5.1.1 Teammates must remove grounds only from the phases to be affected by the specific test or disconnect the grounded jumper from the apparatus terminals.

5.1.2 The Teammate making test connections should be able to observe a clear area during the test. The clear area need not be marked off. All energized terminals not in the clear view of the Teammate making test connections will be barricaded or otherwise clearly marked.

5.1.3 All Teammates not involved in performing the test must stand clear of the apparatus being tested before any voltage is applied. Barriers, barricades or other suitable protection shall be used as necessary to protect Teammates.

5.1.4 The Teammate will consult a one-line diagram and barricade or otherwise clearly mark all remote terminals before test voltage is applied to an apparatus having terminals not visible to the Teammate making test connections. The Teammate making test connections to such equipment will wear approved rubber gloves and sleeves (depending on the voltage of the system to be worked).

5.1.5 Grounds shall be re-installed (and circuit breakers with grading capacitors closed to discharge the capacitors) when further work is required after completion of tests.

5.1.6 When working station service or potential transformers as de-energized, the primary shall be grounded. Before disconnecting the primary lead for test, the secondary shall be disconnected by removing jumpers or fuses. The primary shall be connected to the grounded bus or an additional ground installed if further work is required.

6.0 Grounding in substation and power plant switchgear

6.1 Where practical, the Teammate should apply conventional ground cables and plug-in grounds with Class 3 rubber gloves and an approved hot stick. Where it is not practical to install plug-in grounds with a hot stick, the following rules shall apply.

6.1.1 Two Teammates are required to install plug-in grounds.

6.1.2 While installing plug-in grounds, both Teammates must wear approved FR apparel, approved rubber gloves and sleeves (depending on the system voltage to be worked).

6.1.3 The circuit to be grounded must be tested with an approved voltage detecting device to ensure it is de-energized.

6.1.4 The voltage detecting device must be verified before and after use with a source energized at the line to ground voltage of the circuit (i.e. 7,200 volts for 12,470 volt circuits and 2,400 volts for 4,160 volt circuits). A high voltage test set may be used for the source.

6.1.5 Switchgear shutters must be blocked open and energized terminals covered with insulated barriers before plug-in grounds are installed.

7.0 Underground grounding

7.1 An underground cable retains a capacitive charge after it has been disconnected from a source. A static-type arc can occur when the grounds are applied to these cables.

7.2 All underground cables and equipment, including services, within an energized source will be considered energized until the equipment is de-energized, tested for voltage, tagged, and grounded.

7.3 All underground cables that have had a test voltage applied, the induced voltage shall be discharged by an appropriate connected system ground, before cables are cut or spliced.

7.3.1 Before spiking or piercing underground primary cables, test underground cables for voltage with the appropriate voltage detection device before installing grounds on all sides or at the work site. Then you shall use a cable/phase detection tester to identify any underground primary cables that are not visually verified as grounded, such as, underground cables that are located in manholes, vaults, pull boxes and trenches.

7.4 Depending on the voltage of the system to be worked, appropriate rubber gloves and sleeves and an approved hot stick must be used when grounding.

7.5 When work is to be done on equipment or cables of an underground system, precautions to prevent back-feed must be taken. This includes grounding of the secondary conductors when applicable or removing, disconnecting, and creating a visible open point.

7.6 Before work is performed on de-energized primary circuits or equipment (except network systems), a visible open break must be provided and the cables or equipment will be grounded at the work location, or on all sides as close as practical to the work location.

7.7 On network systems where a visible opening is not possible, the network protectors must be manually opened and grounds placed at all accessible locations (pole risers, station breaks, etc.) before work is performed on primary cables or equipment.

7.8 If the work is to be done on the termination end of the cable, the ground clamp may be removed from that end of the cable, provided the opposite end of the cable remains grounded and has been verified.

7.9 When it is necessary to remove protective grounds to permit testing or fault locating, the rules for “Removal of grounds for testing” (see 5.0 above) must be followed.

8.0 Grounding vehicles and work equipment

8.1 All hole diggers, boom trucks, motor cranes, and other aerial lifting devices, that are not dielectrically tested annually, must be effectively grounded prior to working in proximity to energized conductors or equipment and in accordance with the manufacturers requirements.

8.2 Before any person makes contact with the truck, crewmembers must cease all work and ensure the Teammate working in the bucket and the boom are not in contact with any energized equipment or conductors.

8.3 Work will not resume until all personnel are clear of the truck.

8.4 All reel stands, reel trailers, tensioners, and pullers will be grounded while pulling cable. In addition, a moving or rolling type ground shall be placed on each bare conductor during pulling operations.

8.5 When digger derricks or aerial lifts are required to be grounded then all grounds must be tested annually and visibly marked with a valid test date.

9.0 Grounding Diagrams (Equipotential Grounding)

9.1 Equipotential Grounding (Overhead Grounding Requirements)

9.1.1 OSHA requires temporary protective grounds to be installed at such locations and arranged in such a manner as to prevent exposure to hazardous differences in electric potential. Personal rubber protective equipment (rubber gloves & sleeves) must be worn within five feet of any electrical equipment over 600 volts or conductors until an equipotential zone is established. Once equipotential zone is established, rubber sleeves can be removed.

9.1.2 An equipotential zone is established when all potential differences in the work zone have been eliminated. On overhead systems, this can be accomplished by using an approved Cluster Bar or Equipotential Bond connected to the common/system neutral or approved or tested common ground.

9.1.3 When performing work on bracket grounded conductors or single point grounded conductors, a cluster bracket needs to be installed. Rubber sleeves when in use cannot be removed until a cluster bar has been installed and connected to the neutral, grounds properly installed and connected to cluster bar.

9.1.4 In addition, install the cluster Bar so that it is in contact with the copper grounding conductor (and that is properly stapled into the pole).

9.1.5 If no pole ground exists, install a Cluster Bar and ground to the common neutral, in addition connect a #4 copper conductor to the pole bail using a hot line clamp and adequate amount of staples that penetrate deeper than gaffs.

9.2 Equipotential Grounding (Underground Grounding Requirements)

9.2.1 OSHA requires temporary protective grounds to be installed at such locations and arranged in such a manner as to prevent exposure to hazardous differences in electric potential. Personal rubber protective equipment (rubber gloves & sleeves) must be worn until an equipotential zone is established with grounds, Insulate and Isolate has been met, and with the use of an equipotential grounding mat. Once equipotential zone is established, rubber gloves and rubber sleeves can be removed to perform work at that location.

9.2.2 An equipotential zone is established when all potential differences in the work zone have been eliminated. In underground operations, use of an equipotential mat connected to the common neutral.

9.3 Bracket Grounding (Box Grounding)



9.3.1 Bracket Grounding is a technique that must be used when conductors are broken or when grounded conductors will be cut. Bracket grounds are installed on all sides of the work where there is a possible source of power (circuit ties, substation getaways, parallel lines and wire crossings)

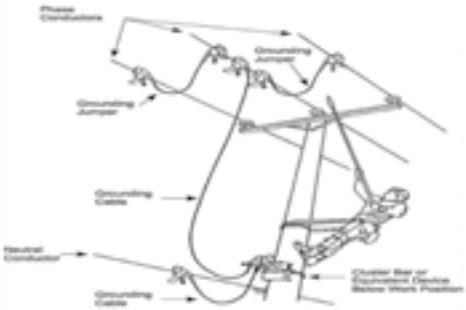
9.3.2 Install grounds as close to the work being performed as possible without interfering with work being performed.

9.3.3 When all conductors are broken on any circuit (not known to be a radial) a shunt of equal current carrying capacity (or a 2/0 ground) must be installed on the first conductor to be repaired. This will eliminate the voltage difference of potential across broken conductors even after bracket grounds are installed.

9.3.4 Follow these steps when Bracket grounding

1. Install ground on each side of the broken conductors.
2. Install ground cluster or Equipotential Bond on the pole below work being performed both from aerial device or on structure.
3. Wearing rubber gloves and (sleeves if required), install a shunt on the first conductor across the break with a tested live line tool.
4. After installing the shunt and splicing the first broken conductor sleeves may be removed.

9.4 Single Point Grounding



9.4.1 Single point Grounding is a technique that can be used when all conductors are intact. This method uses one set of grounds that must be installed within reaching distance of the structure being worked (distance is defined as installing grounds with an 8ft shotgun stick).

9.4.2 This method should only be used during simple tasks and conductors cannot be cut when single point grounding is being used.

9.5 Step & Touch Potential

9.5.1 Step Potential: Voltage between the feet of a personWhen current is flowing from the structure to the earth ground, the ground potential rises at the structure and a voltage gradient will occur based on the resistivity of the soil, resulting in a potential difference between two points on the ground. This is called a Step Potential as it can cause voltage between a person's feet.

9.5.2 Touch Potential: Voltage between energized object and feet of a person: If the ground connection between the structure and the soil is high resistance (common with some soil conditions), the tower itself (and any conductive item touching the tower) can be energized. Touch potential is the voltage between the energized object and the feet of a person in contact with the object.

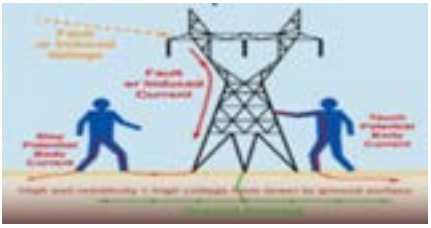
9.5.3 OSHA Requirements to protecting workers on the ground—Step and Touch Potential

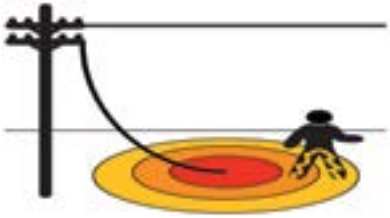
9.5.3.1 1910.269 Appendix C: States “Protecting workers on the ground” The employer may use several methods, including equipotential zones, insulating equipment and restricted work areas, to protect employees on the ground form hazardous differences in electrical potential.

Equipotential zone: will protect employees from hazardous step and touch potential. Equipotential zones will not protect employees wholly or partially outside the protected areas.

Insulating equipment: such as rubber gloves can protect employees that handle grounded equipment and conductors from hazardous touch potentials. The insulating equipment must be rated for the highest voltage that can be impressed on the grounded objects under fault conditions. (rather than the full system voltage)

Restricting Employees: from areas where hazardous step and touch potential could arise can protect employee not directly involved in performing operations. Employees must not handle grounded conductors or equipment likely to become energized to hazardous voltages unless the employees are within an equipotential zone or protected by insulating equipment.





**Rule 721 . . . . . Working on Distribution Transformers**

1.0 The primary leads of a distribution transformer shall be considered energized at full voltage until both the primary and the secondary leads have been disconnected, or it has been determined that the secondary circuit to which it is attached is not energized from other transformers or other sources.

2.0 The cases of all transformers connected to a source of supply shall be considered as being energized at full primary voltage unless they are adequately grounded.

3.0 Teammates shall not stand on, or otherwise contact, transformer cases while working on or near energized circuits.

**Rule 722. . . . . Capacitors**

1.0 Capacitors shall be disconnected from their source for a minimum of five minutes before shorting and grounding the terminals.

2.0 Disconnected capacitors shall not be re-energized for at least five minutes.

3.0 Capacitors and energized racks shall be considered at full rated voltage until they have been disconnected and discharged per grounding standards.

4.0 All new capacitors shall be capacitance tested before being energized.

5.0 Capacitors shall have a shorting wire in place during storage.

6.0 Teammates shall wear the appropriate Class of rubber gloves and sleeves and use an approved shotgun or switch stick while shorting or grounding terminals.

7.0 Teammates shall not come in contact with an ungrounded capacitor case until the capacitor has been disconnected from the circuit and the terminals shorted.

## Rule 723 ..... Underground Distribution Work

1.0 Underground (URD) General

1.1 Before an underground transformer enclosure is opened, all unauthorized persons — including the public — shall be required to leave the work area and remain clear of all hazards involved in the work.

1.2 Eye and Face Arc Flash Protection
OSHA has revised the requirements for head and eye protection for arc flash exposure. Effective April 1, 2015 head and eye protection must meet the following requirements when performing work on energized equipment:

| Exposure Category | Minimum Head and Eye Protection | | |
|---|---|---|---|
| Refer to notes 1, 2, 3 | Hard Hat + Safety Eyeglasses | Hard Hat + Arc Rated Face Shield | Hard Hat + Arc Rated Face Shield + balaclava, or Hard Hat + Arc Rated Hood with integral face shield |
| Open Air | 2 – 8 cal/ | 9 – 12 cal/ | ≥ 13 cal/ |
| Enclosures | 2 - 4 cal/ | 5 – 8 cal/ | ≥ 9 cal/ |

1) Gloving work on most primary circuits is open air exposure. Open air is defined as work on equipment / conductors not contained within an enclosure. Proper cover-up must be used on exposed parts or conductors in the work area except the one being worked.

2) Enclosures include secondary / primary equipment with energized parts or conductors bound within a box with limited access. This configuration will direct the arc blast energy towards the worker and greater protection is required. Enclosures include: Pad Mount Transformers, Self Contained Meter Bases, CT Cabinets, Switchgear, Hand Holes, Splice Boxes, Connection Boxes, and Network Protectors.

3) Single Phase lines only: For exposures involving single phase arcs in open air, the arc rating for the employee's head and face protection only may be 4 Cal / $cm^2$ less than the estimated incident energy.

2.0 Insulated Rubber Glove and/or Sleeve Use — URD

| |
|---|
| **Class 2** - Maximum use voltage of **17,000 volts** --/-- AC/proof tested to **20,000 volts AC** |
| **Class 3** - Maximum use voltage of **26,500 volts** --/-- AC/proof tested to **30,000 volts AC** |
| **Class 4** - Maximum use voltage of **36,000 volts** --/-- AC/proof tested to **40,000 volts AC** |

2.1 Insulated rubber gloves and rated for the voltage shall be worn when: customer may also require the use of rubber sleeves or additional PPE, check with host utility prior to performing A-E below.

a) Opening for the first time daily to perform a safety inspection of the equipment.

b) Removing animals, vines, weeds, grass or vegetation of any kind that has grown into an energized URD installation, whether the equipment is opened or closed.

c) Energized primary cables are moved, handled or protected.

d) Covering all exposed energized cable and electrical parts while using Insulate and Isolate best practices to create a barrier to isolate lineworker. After all primary cable and terminations are properly protected, Class 0 rubber gloves may be substituted when work is performed on secondary and services energized at 600 volts or less.

e) After installation of proper protective equipment is in place and when not within (MAD), only at this time, gloves can be removed to perform work task outside of (MAD). This would include termination of URD Risers.

3.0 Opening and Closing Circuits — URD

3.1 Company switching procedures, including distribution switching tag practices, shall be followed when sectionalizing underground systems.

3.2 When a underground circuit is opened, the route of the circuit shall be patrolled for obvious hazards before the circuit is reclosed.

3.3 Any underground primary circuit shall be de-energized by opening one or more devices. De-energizing shall be done with load-break elbow connectors, load-break fuse cutout at the riser pole, load-break tool or other approved load-break device.

3.4 Personal protective equipment, including approved eye protection, shall be worn when underground switching operations are performed. A full face shield may also be worn as added protection.

4.0 Grounding — URD (Ref. Rule 7.0)

Note: A capacitance charge can remain in a URD cable after it has been disconnected from the circuit and a static-type arc can occur when grounds are applied to such cables.

4.1 All URD cables and equipment — including services — that have been energized or could become energized from any source, shall be considered as energized until the equipment is positively proven to be de-energized by approved voltage detector, and has been grounded.

4.2 Before doing work on de-energized primary circuits or equipment, (1) a visible open break shall be provided; (2) a voltage test shall be made; and (3) the equipment shall be grounded.

4.2.1 Before spiking or piercing underground primary cables, test underground cables for voltage with the appropriate voltage detection device before installing grounds on all sides or at the work site. Then you shall use a cable/phase detection tester to identify any underground primary cables that are not visually verified as grounded, such as, underground cables that are located in manholes, vaults, pull boxes and trenches.

4.3 When work is to be done on equipment or cables of an underground system, precautions to prevent back feed shall be taken. This shall include grounding of the secondary conductors where applicable.

4.4 De-energized cables shall be grounded at a point as close to the work as possible before work is started.

4.5 All underground cables and apparatus carrying current at voltages above 600 volts shall be de-energized and grounded before cables are worked.

5.0 Work on Energized Equipment — URD

5.1 All underground cables and apparatus carrying current at voltages above 600 volts shall be de-energized and grounded before work is done on the conductor or before the cables are cut into or spliced.

5.2 When work is performed on cables or apparatus carrying less than 600 volts, Teammates shall take extra precautions in the use of necessary insulated rubber protective equipment, in observing adequate clearances and by using approved insulated tools in order to prevent short circuits.

5.3 When energized pad-mounted transformers are unlocked and opened, they shall be directly attended by a qualified Teammate. They shall be kept closed and locked at all other times.

5.4 A primary or secondary system neutral on any energized circuit shall not be opened under any circumstances.

5.5 Elbow connectors provide a great deal of flexibility in switching and system sectionalizing; however, only those connectors designed and approved for load-break use shall be used to connect or disconnect an energized circuit.

5.6 Only tools with 1KV insulated handles shall be used for making energized secondary connections at 600V or less, or when work is performed within energized pedestals, pad-mount compartments or submersible transformer enclosures.

5.7 Only one energized secondary or service conductor shall be worked on at any one time, and protective devices shall be used to insulate or isolate it from all others.

6.0 Excavations — URD

6.1 Before opening an excavation, all interferences such as trees, sidewalks and foundations shall be removed or supported as necessary to protect Teammates and the public.

6.2 The location of utility and other underground installations that could be encountered during excavation shall be determined prior to excavation; by using the applicable locating company for the area and waiting the full time allotted for locating prior to beginning excavation.

6.3 When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means — using the Team Fishel ULP and by hand digging with insulated shovel and the use of suitable gloves.

6.4 If electric cables are damaged, the following steps shall be taken:

a) If the damaged cable belongs to a utility other than the one performing the work, this utility shall be notified at once.

b) The area shall be barricaded and the public kept out until hazardous conditions can be eliminated.

c) If gas lines are damaged, the following steps shall be taken:

1. All equipment and motors must be shut down.
2. All open flames in the area must be extinguished. Teammates should not smoke.
3. A Teammate should call the office and 911
4. A Teammate should call the gas company.
5. All Teammates and bystanders must be removed from the area and homeowners and businesses in the immediate area notified of a potentially dangerous condition.
6. All traffic should be diverted from the area until the police department arrives.
7. Teammates should not try to stop or fix the leak themselves. Teammates must follow the instructions of the gas company representatives when they arrive.
8. Team Fishel Accident Investigation Procedures must be followed.

6.5 If communication cables are damaged, the communication company shall be notified at once.

6.6 While the excavation is open, underground installations shall be protected, supported or removed to safeguard employees.

6.7 A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are four feet or more in depth so as to require no more than 25 feet of lateral travel for Teammates.

6.8 No Teammate shall be permitted beneath loads handled by lifting or digging equipment. Teammates shall stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials.

6.9 When mobile equipment is operated adjacent to an excavation and the operator does not have a clear and direct view of the edge of the excavation, a warning system such as barricades, a spotter or stop logs shall be utilized.

6.10 Teammates shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation.

6.11 If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation.

6.12 Where the stability of adjoining buildings, walls or other structures is endangered by excavation operations, support systems such as shoring, bracing or underpinning shall be provided.

6.13 Teammates shall be protected from excavated materials or equipment that could fall or roll into excavations. Protection shall be provided by placing and keeping such materials or equipment at least two feet from the edge of excavations, or by using retaining devices that are sufficient to prevent materials or equipment from falling or rolling into the excavation.

6.14 Daily inspections of excavations, the adjacent areas and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres or other hazardous conditions. Inspections shall be conducted before starting work, and as needed throughout the shift. Inspections shall also be made after every rainstorm. Where the competent person finds evidence of a situation that could result in a possible cave-in, failure of protective systems, hazardous atmospheres or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

6.15 Where Teammates or equipment are required or permitted to cross over excavations, walkways or bridges with standard guardrails shall be provided.

6.16 When excavations are left open, warning devices, barricades or guardrails shall be placed to adequately protect the public and the Teammates. At the end of each workday, as much of the excavation as practical shall be closed. No more than one trench shall be open at one time than is necessary.

6.17 Mechanical excavating equipment that is parked or operating on streets or highways shall be protected by proper warning devices.

6.18 When it is necessary to leave excavating equipment unattended, the blade, bucket or scoop shall be lowered to the ground and the ignition system locked.

6.19 Each Teammate in an excavation shall be protected from cave-ins by an adequate protective system — either sloping or benching, shoring or shield system — unless excavations are made entirely in stable rock or are less than five feet in depth, and examination of the ground by a competent person provides no indication of a potential cave-in.

6.20 When choosing a protective system, a competent person shall take into consideration soil type, vibration sources, previously disturbed soil, layered soil, presence of water, heavy equipment work adjacent to the excavation, limited work area and other hazard-increasing conditions.

6.21 Shoring and shield systems shall be installed and removed a manner that protects Teammates from cave-ins, structural collapses or from being struck by members of the shoring or shield system.

6.22 Removal of shoring systems shall begin at — and progress from — the bottom of the excavation. Members shall be released slowly so as to note any indication of possible cave-ins on the side of the excavations, or possible failure of the remaining members.

6.23 Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of a sudden lateral load.

6.24 Teammates shall be protected from the hazards of cave-ins when entering or exiting the areas protected by shields.

6.25 Teammates shall not be allowed in shields when shields are being installed, removed or moved vertically.

6.26 Sloping or benching, shoring or shielding for excavations greater than 20 feet deep shall be designed by a registered professional engineer. Refer to OSHA 1926.652 Subpart P Excavations.

6.27 For additional information on excavation requirements, refer to OSHA Standard 29 CFR 1926, Subpart P, Excavations.

6.28 “Competent person” as used in this section is a person who meets all the requirements as set forth in the OSHA Standard 29 CFR 1926, Subpart P, Excavations.

7.0 Entering Underground Structures

7.1 Before a Teammate enters a confined space such as a manhole or an unvented vault, it shall be promptly protected with a barrier, temporary cover or other suitable guard. Initial atmosphere testing is to be completed at the point of access prior to removing cover.

7.2 No entry shall be permitted if water accumulation in the confined space is present; water must be removed before and during confined space entry.

7.3 No entry shall be permitted until the atmosphere is found to be safe by testing for oxygen deficiencies and the presence of gases or toxic fumes. Prior to atmosphere testing, use forced air ventilation for approx. 15 minutes then test atmosphere.

7.4 If unsafe atmosphere conditions are detected after initial forced air venting and testing, the space shall be ventilated additional time and retested. If the atmosphere cannot be made safe by forced air venting, Teammate entry shall not take place.

7.5 In a NPRCS where a safe atmosphere exists; forced air venting shall be continuous prior to and during occupancy, and the atmosphere must be continually monitored for atmospheric changes.

7.6 Where factory-installed ladders are not in place, an approved nonconductive straight ladder shall be used in entering or leaving a manhole or vault. Climbing into or out of manholes by stepping on cables or hangers is forbidden.

7.7 While work is being performed in a NPRCS, a qualified Teammate trained in first aid and CPR shall be available in the immediate vicinity to render emergency assistance if required.

7.8 Before any work is done on a cable, it shall be identified by an approved method. If there is any doubt as to the identification, work shall not be started until checked and identified by a qualified Teammate.

8.0 Pulling Cables

8.1 Teammates shall not handle pull-wires or pulling-lines within reaching distance of blocks, sheaves, winch drums or take-up reels.

8.2 Pull-wires, steel pulling-lines or metal rodding shall not be pushed through ducts where energized equipment is present unless another Teammate is stationed at the end of the run.

8.3 Teammates shall not remain in a manhole or vault during pulling operations involving heavy pulling strains unless they can take a position clear of the pulling line.

8.4 Communications between manholes shall be maintained.

## Rule 724. . . . . .Substation Work

1.0 Working in Substations

1.1 Access to substations is limited to qualified Teammates and company-authorized personnel. New Teammates, and those not familiar with the hazardous conditions inherent in a substation, shall be given a job briefing before being permitted to enter.

1.2 When entering and before leaving a substation for work purposes, Teammates shall notify the appropriate control center operator, provided they can be reached by telephone or company radio.

a) Work purposes are any activities that could affect the operation of the substation — including operating any transmission/distribution equipment, or

b) Working near transmission/distribution lines or equipment — if the possibility exists to affect the transmission/distribution system, or

c) When entering any transmission/distribution substation building.

1.3 Helmets and safety glasses shall be worn at all times working within the confines of any substation fence. Exception: Helmets may be removed while inside control houses, unless overhead work is being performed there.

1.4 Gates to stations shall be kept closed and locked when authorized personnel are not in the station. When authorized personnel are working in the station, the gate shall be kept closed and shall be locked where required.

1.5 Doors to enclosures (other than control cabinets) containing exposed energized electrical equipment shall be kept closed and locked, or equipment shall be barricaded.

1.6 Before work is to commence, a job briefing shall be held with all Teammates to orient each Teammate with the work to be performed and hazardous associated with the work. See Section 203 for guidance on what shall be covered.

1.7 When entering a substation where work is in progress, report your presence to the person(s) in charge for a safety briefing.

1.8 Metal fences enclosing electrical equipment shall be adequately grounded and maintained in safe condition.

1.9 Temporary fencing shall be properly grounded and bonded to the existing fence.

1.10 Damaged fences, broken switches, and unlocked gates and control houses shall be promptly reported to the Supervisor or person in charge.

1.11 Access to station control houses and all switches shall be kept clear and accessible.

1.12 The open space in switch houses, control centers and operating panels shall be kept clear of rubbish and shall not be used for storage except during construction or maintenance.

1.13 Teammates shall not enter electrical equipment rooms or enclosures unless they have been authorized or their duties require them to be there.

1.14 Operating handles of disconnect switches, transformer no-load tap changers and other similar devices which could cause equipment damage if operated by unauthorized persons shall be locked with an approved lock.

1.15 Removable handles for manual operation of circuit breakers shall not be left in their sockets and shall be properly stored.

1.16 Class 2 rubber gloves and sleeves are not required in the substation if the work situation is to work solely on controls or apparatus not associated with the primary voltage of the breaker, transformers, regulator, etc., or such a situation where a tool or piece of equipment will not be carried or used within the clearance zone.

1.17 No Teammate may approach, or take any conductive object without an insulated handle, closer to exposed energized parts than the clearances set forth in Table D-1 unless:

a) The Teammate is insulated from the energized part.

b) The energized part is insulated from the Teammate and any other conductive object at a different potential.

c) The Teammate is insulated from any other conductive object, as during live line work.

1.18 Electric equipment, lines and circuits shall be considered energized until determined by testing to be de-energized and grounded.

1.19 A Teammate shall not begin work on equipment or lines until proper clearance is obtained from the responsible authority. Where these instructions are given by telephone or radio, each person shall satisfy herself/himself of the identity and authority of the other person.

1.20 Metal or wood ladders shall not be used in substations. When carrying material, tools or equipment longer than 6’ and heavier than 50lbs in energized areas of substations, they shall be held by at least two Teammates — one at each end —and carried below shoulder height.

1.21 Steel tapes and rulers shall not be used in the energized areas of a substation. Fish tapes and steel tapes may be used on or below ground. Extreme caution shall be used when working in areas of energized underground cables.

1.22 Safety interlocks shall not be bypassed or made inoperative without the approval of the responsible Supervisor — and then only when absolutely necessary. It shall be the responsibility of this Supervisor to be sure that the necessary procedures are set up to guard against an accident while the interlock is bypassed.

1.23 Teammates shall use special care when working in or around circuit breaker mechanisms, linkages, transformer tap changers, etc. This type of equipment shall be locked, blocked, tagged-out or otherwise disabled, if practicable, while work is being performed on it. If it cannot be so disabled or made inoperative, the work shall be performed in such a manner that Teammates will not be injured if the equipment operates.

1.24 Lightning arresters, capacitors, capacitor bushings, generator surge protectors and similar equipment shall be properly discharged before work is performed on them.

1.25 Explosions may occur during maintenance work because of ignition of acetylene or other combustible gases that may accumulate from arcing in oil circuit breaker tanks, transformers and transformer tap changers. Special precautions — including ventilation, grounding storage tanks and oil drums — shall be taken to guard against this hazard. No smoking, open flames or other ignition sources shall be permitted in the area.

1.26 Before working on equipment that may have combustible gases present, equipment shall be force-ventilated with air or nitrogen until the air space tests below the LEL limit for combustible gases. Retests shall be made as needed.

1.27 When transferring liquid, the vehicle or trailer pumping equipment must be properly grounded to the station ground grid; or while connected to a 120/240 VAC source.

1.28 If any quantity of oil is spilled, it shall be reported to appropriate supervision.

1.29 Before driving a vehicle into a substation, the driver shall check the overhead clearance of the vehicle (e.g., radio antenna, boom and basket) to prevent contact with low lines or other structures, or any energized equipment.

1.30 Movement and operation of mechanical equipment within hazardous areas must be controlled by a qualified person, and at all times shall maintain safe clearances from energized bus and equipment.

1.31 Only those designated persons who are qualified and trained shall operate the hoisting equipment.

1.32 Adequate clearance from energized lines shall be maintained when vehicles and equipment are in substations. No materials, equipment or vehicles are to be stored under an energized bus, near energized equipment or in areas of ingress or egress. Other areas of the station may be used for storage with the approval of the substation manager.

2.0 Substation Climbing

2.1 When working at elevated locations above four feet (with exception of stepladders, safety platform ladders and properly set-up scaffolds), Teammates shall comply with all substation fall protection guidelines.

2.2 Teammates shall not attach lanyards or safety belts to or depend upon, lines, station bus work, station post insulators or lightning arresters to support their weight.

2.3 Caution must be exercised to secure all equipment and tools when working aloft. Tools shall never be placed unsecured on elevated places or thrown from place to place or person to person.

3.0 Substation Barricades and Barriers

3.1 When working on the ground or overhead, approaches to energized equipment adjacent to equipment on which work is to be done — and any similar equipment — shall be blocked off with approved barricades or barriers.

3.2 When working overhead where barricades or barriers are not practical to install, red flags shall be used at all approaches to energized equipment.

3.3 The Supervisor or person in charge shall be responsible for determining what barricades, barriers or red flags are necessary, and for seeing that they are properly installed and maintained.

3.4 All barriers, barricades and warnings signs shall be heeded.

3.5 Persons seen in dangerous situations shall be warned without being startled. Teammates not required to be near potentially dangerous places shall be kept away from them.

3.6 Equipment with guards removed to perform maintenance operations shall not be operated while guards are removed (except for maintenance certification).

4.0 Lockout/Tagout

4.1 Switching of equipment for clearance shall comply with company lockout/tagout procedure safety rules for Transmission and Distribution (de-energizing lines and equipment for Teammate protection).

4.2 Servicing and maintenance of equipment shall comply with company lockout/tagout procedure safety rules (for servicing and maintenance of machines and equipment).

5.0 Batteries

5.1 Approved company apparel — gloves, goggles and face shield, and aprons — shall be worn when installing, removing or servicing station storage batteries or making electrolyte, unless no splash hazard is present.

5.2 Storage batteries produce hydrogen while being charged, and may create an explosive gas mixture. Enclosed areas used to charge or store batteries shall be adequately ventilated.

5.3 Any equipment that could cause sparks or electric arcs shall not be taken into the battery charging area.

5.4 Smoking, welding, spark-producing equipment and open flames shall not be permitted within 35 feet of battery charging areas. “No Smoking” signs shall be conspicuously posted in such areas. Adequate fire protection shall be available.

5.5 Teammates shall use special care when cleaning, testing or servicing batteries to prevent a short circuit. Teammates should use insulated tools when working on substation batteries.

5.6 Whenever work must be performed in a location or position from which items such as tools and equipment may be accidentally dropped upon a station storage battery, proper measures shall be taken to protect the battery before the work is started.

5.7 When electrolyte is made for storage batteries, the acid shall be poured slowly into the water. Water shall not be poured into the acid, because an explosion may occur.

5.8 If battery acid gets into a Teammate’s eye, the eye shall be flushed immediately at an eyewash station for several minutes. The eye should not be rubbed. The Teammate shall be given medical treatment promptly. Water for drenching eyes shall be kept unobstructed within 25 feet of battery handling areas.

5.9 If battery acid contacts a Teammate’s body or clothing, the Teammate shall promptly neutralize it with baking soda and wash with plenty of water.

5.10 Good housekeeping practices shall be maintained in battery storage and charging areas.

6.0 Testing

6.1 High-Voltage Tests

a) Doble or high-potential test sets: Teammate handling high-voltage cables shall wear Class 2 rubber gloves and sleeves. Gas-Filled Equipment gas. Some equipment may require the use of respirator environments, such as on vacuum bottles in LTC compartments — and then under supervision, all other steps of this section shall be followed.

b) When Teammate is moving or changing connection of high-voltage cables where test voltage above 15,000 volts is available, the high-potential test set shall be visibly disconnected from its power source.

c) The high-voltage cables of the Doble or high-potential test shall be barricaded from accidental contact by other Teammates who are not wearing class 2 rubber gloves and sleeves.

d) When voltage-testing equipment in shop areas, equipment under test shall be case-grounded and barricaded.

6.2 High Current Test

a) When Teammates are moving or changing high current cables on load box or recloser test sets, the Teammate shall wear class 0 rubber gloves.

b) The high-current cables of the test set and equipment shall be barricaded from accidentally contacting other Teammates while testing.

c) Equipment being tested shall be case-grounded while testing.

6.3 High Vacuum

a) Teammates shall avoid standing or climbing on equipment under high vacuum if possible.

b) If Teammate must climb on equipment under high vacuum, care must be taken to not stand on any unsupported surface at all times. Exception: When making connections in oily environments, such as on vacuum bottles in LTC compartments — and then under supervision, all other steps of this section shall be followed.

c) When Teammate is moving or changing connection of high-voltage cables where test voltage above 15,000 volts is available, the high-potential test set shall be visibly disconnected from its power source.

d) The high-voltage cables of the Doble or high-potential test shall be barricaded from accidental contact by other Teammates who are not wearing class 2 rubber gloves and sleeves. When voltage-testing equipment in shop areas, equipment under test shall be case-grounded and barricaded.

## Rule 725. . . . . .Line Clearance Tree Trimming Operations

1.0 Scope

1.1 During the scope of normal overhead electric line work or during times of damaging weather; Teammates may need to trim trees in order to complete repairs of or replacement of electrical conductors or other work. In doing so, Teammates engaging in tree trimming for such purposes, shall observe and take due precautions to recognize suspension strand tension and possible “snap back” from conductors and guying, or other line that may be under stress or strain. All electrical conductors shall be considered “hot” unless proven to be de-energized or grounded.

2.0 Job Briefing

2.1 The most qualified Teammate shall perform the job briefing before the start of any tree trimming work. The briefing shall be communicated to all Teammates on the job site regardless of whether all will be involved in tree trimming. See section 203 for job briefing guidance.

3.0 Personal Protective Equipment

3.1 Teammates shall wear the following PPE while operating a chain saw, pole saw or like equipment; chain saw-resistant foot/leg protection are to be worn by all Teammates while operating a chain saw on the ground, long sleeve shirt with cuffs buttoned at wrist, hardhat that meets ANSI Z89.1, face shield, form fitting work gloves, hearing protection and safety glasses that meet ANSI Z87.1+.

3.2 Teammates shall wear the following PPE while operating a wood chipper or like equipment; hardhat that meets ANSI Z89.1, face shield, form fitting work gloves, hearing protection, long sleeve work shirt with cuffs buttoned at the wrist and safety glasses that meet ANSI Z87.1+. Teammates shall not wear any clothing or items that could potentially cause the Teammate to become entangled with tree parts being loaded into equipment. Clothing and items such as, but not limited to, shall not be worn; safety vest, un-tucked shirts, jackets, rain coats, long sleeves not buttoned at the wrist, bracelets, watches, or any other items that could cause tree limbs to become attached to a Teammate while operating a chipper.

4.0 Tree Felling

4.1 Teammates who must fell a tree in order to gain safe access to electric lines after inclement weather or other damage shall plan a clear path of retreat prior to cutting.

4.2 Teammates felling a tree shall assess the condition of the tree; dead limbs, leaning, wind conditions and any other hazards prior to cutting.

4.3 Cuts made to tree shall be made about one-third (1/3) the diameter of the tree in order to guide the tree in the direction to fall. A back or "felling" cut shall be made parallel to the inner edge of the undercut and approximately two (2) inches higher than the undercut.

4.4 Teammates shall turn off chain saw prior to making retreat from felling tree.

4.5 On terrain where trees are more likely to roll or slide, Teammates shall fell trees from the uphill side.

4.6 No one shall climb in, stand around or work in the area of a tree being felled.

4.7 No one shall come into contact with guide ropes or other rigging.

4.8 Recommended distance from tree being felled is two (2) times the height of the tree.

4.9 Clear warnings shall be given to all Teammates or others in the general area when trees are felled or large limbs are being dropped.

4.10 Once tree felling operations start, it shall be completed prior to leaving job site.

4.11 Larger parts of felled trees shall be cut into pieces easy to move.

4.12 Until the "all clear" is given, Teammates shall not attempt to clear away felled tree.

Further information is provided by OSHA Standard 29 CFR 1910.266

5.0 Care and Use of Tools and Ropes as it pertains to Tree Trimming

5.1 Ropes shall be inspected before each use.

5.2 Ropes that become stretched, frayed, knotted or any other hazardous condition shall be cut up and disposed of, and the rope replaced.

5.3 Ropes shall be kept away from fire, acids, oils, chemicals, corrosives and/or any other form of damaging product.

5.4 Dragging ropes over rough surfaces and sharp objects, such as rocks, shall be avoided.

5.5 Ropes shall be stored separate from sharps and rough edges.

5.6 Cutting edge of tools shall be suitably sheathed or guarded while not in actual use.

5.7 Cutting tools shall be kept sharp and properly shaped.

5.8 Chain saws shall be returned to the scabbard when not in actual use.

5.9 Axes shall not be used in trees or carried on Teammate shoulders.

5.10 Tools shall not be thrown into trees or dropped from a tree; hand lines should be used.

5.11 Ladders shall be removed from the base of the tree when not in use.

5.12 Climbing ropes shall have a minimum diameter of one half of an inch (1/2") with a minimum breaking strength of 2,300 pounds.

5.13 Synthetic ropes shall have elasticity not more than 7 percent (7%).

5.14 Ropes shall be kept dry.

5.15 Ropes that become wet must be stored in a way to allow air to circulate through the coils and allowed to dry thoroughly.

5.16 Climbing rope may not be spliced.

5.17 Ropes that become compromised (wet, contaminated with dirt, etc) shall not be used around energized conductors.

6.0 Powered Trimming Equipment

6.1 Teammates operating powered trimming equipment shall wear PPE as it is applicable to equipment being used.

6.2 Teammates operating chain saws or the like shall inspect the saw before each use to ensure that all handles and guards are in place and tight, that all controls function properly, and that the muffler is operational.

6.3 Teammates shall follow manufactures' instructions on operation and maintenance.

6.4 Power saws weighing more than 15 pounds that are used in trees shall be supported by a separate line, unless the work is performed from an aerial lift or no supporting limbs are available.

6.5 Chain Saw Operations:

a) When starting a chainsaw, it shall be placed on or against a solid support and the area cleared of all Teammates.

b) The Teammate shall grip the chainsaw with both hands during the entire cutting operation.

c) The saw bumper shall be against the tree or limb before starting a cut.

d) All chainsaws shall be equipped with "dead man" controls, so the control cannot lock in the "on" position.

e) Under no circumstances are chainsaws to be altered from manufacturer specifications.

f) Chainsaws found to be in poor working order are to be red tagged "Do Not Use", taken out of service and turned in for repairs.

g) Chainsaw engines shall be stopped for the following:

h) When working on any part of the chain or cutting bar.

i) When the saw is being moved from one location to another or when being handed off to another Teammate.

j) When unit is unattended.

k) When unit is being refueled. If fuel spills on unit, it must be wiped off prior to restarting. Do not start within 10 feet (10') of fueling station.

l) Chainsaws shall not be used over head or at a distance that would require a Teammate to relinquish a two (2) hand hold on chain saw.

m) Teammates shall not approach another Teammate using a chainsaw while the saw is in operation.

n) Teammates shall not hand a pneumatic or hydraulic pruner or saw to another Teammate unless it is disconnected.

o) Power tools shall not be left unattended when connected to a power source.

p) Power tools shall not be left connected to a power source while undergoing maintenance or adjustment.

# APPENDIX A:
# ELECTRICAL PERSONAL PROTECTIVE EQUIPMENT MATRIX

1.0 Energized Work tools

1.1 Energized work tools include blankets, line hoses, and insulated hand tools.

1.2 Each energized work tool will be wiped clean and visually inspected for defects before each use.

1.3 If any defect or contamination that could adversely affect the insulating qualities or mechanical integrity of the energized work tool is present after wiping, the tool will be removed from service and examined and tested before being returned to service.

1.4 Energized work tools used for primary Teammate protection will be removed from service every two years for examination, cleaning, repair, and testing. Hot sticks will be inspected every year and dated.

1.5 Testing

1.5.1 Testing will be performed by applying 75,000 volts (at ANSI standard under the classification of Tool) per foot of length for one minute if the tool is made of fiberglass, or 50,000 volts per foot of length for one minute if the tool is made of wood.

1.5.2 Buckets and line trucks will be dielectric-tested annually.

2.0 Gloves and sleeves

2.1 Minimum approach distances

2.1.1 No Teammate will approach or take any conductive object closer to exposed energized parts than set forth in Appendix B unless:

- The energized part is insulated from the Teammate and from any other conductive object at a different potential; and
- The Teammate is insulated from the energized part by wearing insulating gloves and sleeves with regard to the energized part upon which work is being performed; or
- The Teammate is insulated from any other exposed conductive object, as during live-line, bare-hand work.

2.2 If the exposed energized part on which work is not being performed is insulated from the Teammate, and if such insulation is placed in a position not exposing the employee's upper arm to contact with other energized parts, then insulating sleeves are not required to be worn. Teammates will be required to wear insulating sleeves when within the primary zone as defined by within 5 feet of a primary.

2.3 Gloves tested every 6 months and Sleeves tested every 12 months. They must not be worn after the expiration date.

3.0 Apparel

3.1 When work is performed within reaching distance of exposed energized parts of equipment, Teammates must remove or render nonconductive all exposed conductive articles, such as keys, watches, chains, and rings.

3.2 Each Teammate who is exposed to the hazards of flames or electric arcs must not wear clothing that, when exposed to flames or electric arcs, increases the extent of injury that would be sustained.

3.2.1 Clothing made from the following types of fabrics, either alone or in blends, is prohibited: acetate, nylon, polyester, or rayon.

3.2.2 All Teammates shall always wear clothing that is suitable for the particular type of work they are doing.

3.2.3 Teammates exposed to the hazards of flames must wear an electrical hard hat.

3.2.4 Teammates must wear FR long sleeved shirts which are rolled down and buttoned when there is a hazard such as low and high voltage contact, burns from electric arc, stings from insects, contact with poisonous plants, and exposure to chemically treated poles. If the Teammate is required to work aloft on poles, structures, aerial devices (ladders, buckets, etc.) or work near energized lines or equipment (low or high voltage), the long sleeves must be rolled down and buttoned.

3.2.5 Foot protection is a leather work boot that has has a defined heel and over the ankle.

# APPENDIX B:
# MINIMUM APPROACH DISTANCE

## Clearances

**Table V-1**
**A/C Live Work Minimum Approach Distances (MAD)**

| **Nominal Phase to Phase Voltage** | **MAD (phase to ground)** Feet - Inches | **MAD (phase to phase)** Feet - Inches |
|---|---|---|
| 0.50 to 0.750 | 1 – 2 | 1 - 2 |
| 0.751 to 15 | 2 – 2 | 2 - 3 |
| 15.1 to 36.0 | 2 – 7 | 3 - 0 |
| 36.1 to 46.0 | 2 – 10 | 3 - 3 |
| 46.1 to 72.5 | 3 – 4 | 4 - 0 |
| 72.6 to 121 | 3 – 9 | 4 - 8 |
| 121.1 to 145 | 4 – 4 | 5 - 5 |
| 145.1 to 169 | 4 – 10 | 6 - 5 |
| 169.1 to 242 | 6 – 8 | 10 - 2 |
| 242.1 to 362 | 11 – 3 | 18 - 2 |
| 362.1 to 420 | 14 – 0 | 22 - 5 |
| 420.1 to 550 | 16 – 8 | 27 - 1 |
| 550.1 to 800 | 22 – 7 | 37 - 5 |

Conductor support tools such as link sticks, strain carriers, and insulator cradles may be used provided that the clear insulating distance is at least as long as the insulator string or the maximum distance in rule 441A4 of the NESC. When installing this equipment, the employee shall maintain a minimum approach distance equal to the clear insulating length for the support tool.

*Footnote(1): Voltages over 72.5 KV, the minimum approach distances can be reduced if supplied by the customer and approved by the Safety Department as long as the customer has done the calculations according to OSHA 1926.960 and 1910.269.

*Footnote(2): When work is performed at elevations over 3000 feet, the minimum approach distances in table V-1 need to be increased. Consult with safety department for those minimum approach distances.

Live line tools shall be wiped clean and visually inspected for defects before use each day. Live line tools shall be tested every 24 months under wet conditions or sooner if indicated by the condition of the tool. If the tool has been taken out of service for repairs or to be refinished, it shall be tested before being placed back into service. Recommend wet testing live line tools every 12 months.

Ref: OHSA 1910.269 – 1926.957 – NESC 441A4

Rule 801 . . . . . General Compliance Requirements and Definitions
Rule 802 . . . . . General Rules
Rule 803 . . . . . Competent Persons
Rule 804 . . . . . Utilities and Utility Locating
Rule 805 . . . . . Protective Systems
Rule 806 . . . . . Cave-In Rescue
Appendix A . . . . . Excavation Inspection Report

## Rule 801 . . . . . .General Compliance Requirement and Definitions

1.0 General Compliance Requirements

In the event that there are questions and/or topics not covered in Section 8, Team Fishel will adhere to OSHA 1926.652 Subpart P Excavations for trenching, shoring and soil analysis.

2.0 Definitions

**Accepted Engineering Practices** – Those requirements that are compatible with standards of practice required by a Registered Professional Engineer.

**Aluminum Hydraulic Shoring** – A pre-engineered shoring system comprised of aluminum hydraulic cylinders (cross braces) used in conjunction with vertical rails (uprights) or horizontal rails (walers). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.

**Barricade**- A physical obstruction that provides advance warning and limits access to a hazardous area. Examples include but not limited to: Snow fence, cone bars, railings and jersey barriers.

**Benching** – A method of protecting Teammates from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels.

**Cave-in** – The separation of a mass of soil or rock material from the side of an excavation, or the loss of soil from under a trench box or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure or immobilize a person.

**Competent Person** – One who is trained through an approved Team Fishel competent person training and is capable of identifying existing and predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to a Teammate, and who has the authority to take prompt corrective measures to eliminate them.

**Cross Braces** – The horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against uprights or wales.

**Excavation** – Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

**Faces or Sides** – The vertical or inclined earth surfaces formed as a result of excavation work.

**Failure** – The breakage, displacement, or permanent deformation of a structural member or connection so as to reduce its structural integrity and its supportive capabilities.

**Hazardous Atmosphere** – An atmosphere, which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness or injury.

**Impalement Caps** – Caps used to cover up sharp protruding objects to eliminate the hazard of impalement. Some examples for use of impalement caps would be rebar, ground rods and T-posts that a teammate or the general public could fall into causing impalement.

**Kickout** – The accidental release or failure of a cross brace.

**Protective System** – A method of protecting Teammates from cave-ins of material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures.

**Support systems** – Include the following:

- Sloping and benching systems
- Shield systems
- Other systems that provide the necessary protection

**Ramp** – An inclined walking or working surface that is used to gain access to one point from another, and is constructed from earth or from structural materials such as steel or wood.

**Registered Professional Engineer** – A person who is registered as a professional engineer in the state where the work is to be performed. A professional engineer registered in any state is considered a "Registered Professional Engineer" when approving designs for manufactured protective systems or tabulated data to be used in interstate commerce.

**Sheeting** – The members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.

**Shoring** – A structure such as metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

**Sloping** – A method of protecting Teammates from cave-ins by excavating to form sides of a excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

**Soft Digging** – A form of excavation that solely uses air or water pressure to excavate.

**Structural Ramp** – A ramp built of steel or wood, usually used for vehicle access.

- Ramps made of soil or rocks are not considered structural ramps.

**Support System** – A structure such as underpinning, bracing, or shoring which provides support to an adjacent structure, underground installation, or the sides of an excavation.

**Tabulated Data** – Tables and charts approved by a Registered Professional Engineer and used to design and construct a protective system.

**Trench** – A narrow excavation (in relation to its length) made below the surface of the ground.

- In general, the depth is greater than the width, but the width (measured at the bottom) is not greater than 15 feet.

**Trench Box** – A structure that is able to withstand the forces imposed on it by a cave-in and thereby protect Teammates within the structure.

- They can be permanent structures or designed to be portable and moved along as work progresses.
- They can be pre-manufactured or job-built in accordance with 1926.652 (c)(3) or (c)(4).

**Type A Soil** – Cohesive soil with an unconfined compressive strength of 1.5 tons per square foot (tsf) or greater. Team Fishel does not permit soil to be classified as Type A.

- Clay
- Silty slay
- Sandy clay
- Clay loam
- Cemented soils such as caliche and hardpan

No soil is Type A if it is fissured, subject to vibration from heavy traffic, or has been previously disturbed.

**Type B Soil** – Cohesive soil with an unconfined strength greater than 0.5 tsf but less than 1.5 tsf, or granular cohesionless soils such as:

- Angular gravel (similar to crushed rock)
- Silt
- Silt loam
- Sandy loam
- In some cases, silty clay loam and sandy clay loam

Previously disturbed soils except those that would be otherwise classified as Type C soil that meets the unconfined compressive strength or cementation requirements for Type A soil but is fissured or subject to vibration.

**Type C Soil** – Cohesive soil with an unconfined strength of 0.5 tsf or less. These are granular soils including:

- Gravel
- Sand
- Loamy sand, or
- Submerged soils from which water is freely seeping

**Type C 60 Soil** – Soil that shows signs of cohesiveness but does not fit into Type A or Type B classification and is not flowing or submerged. Material can be cut with near vertical sidewalls and will stand unsupported long enough to allow vertical shores to be properly installed. There is no indication of deterioration of the soil or freely seeping water or slowing soil entering the excavation around or below the sheeting.

**Uprights** – The vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other.

- Uprights which are placed so that individual members are closely spaced, in contact with or interconnected to each other are often called sheeting.

**Wales** – Horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

## Rule 802 ..... General Rules

1.0 All trenches/excavations five feet or more in depth will be protected before anyone enters the excavation, unless otherwise instructed by customers and or governing bodies with more stringent requirements.

- The protection can be obtained by benching (Type C soil cannot be benched), sloping, shoring, or by use of a trench box.
- If there are hazardous soil conditions, trenches/excavations under five feet in depth will be protected.
- Excavation report shall be filled out on any excavation which a Teammate is required to enter or which reaches 4’ in depth or when deemed necessary by a competent person.

2.0 Teammates working in trenches/excavations four feet or more in depth shall have an adequate and safe means of access and egress. Ladders are the only recognized means of access and egress and must be within 25 feet of lateral travel for Teammates.

3.0 All surface encumbrances that are located so as to create a hazard to Teammates must be removed or supported, as necessary, to safeguard Teammates.

- 3.1 Shoring shall be erected so as to prevent objects from falling into the trench.
- 3.2 Teammates are not permitted to work under suspended load at any time.

4.0 Superimposed loads, like heavy equipment working close to the excavation edges, require extra sheeting, shoring or bracing.

- The use of mobile equipment near trenches/excavations also requires an appropriate warning system.
- Heavy equipment must not be used within 2 feet from the edge of an excavation unless protective systems are in place and the operator has a clear path of vision.

5.0 Additional underpinning, shoring or bracing may be required when adjoining utility lines, foundations, walks and footings are endangered.

6.0 A Registered Professional Engineer shall design protective systems for excavations greater than 20 feet deep.

7.0 When trenches/excavations are left open and or unattended, snow fence, warning devices, or barricades will be placed to protect the public and Teammates.

- At night, in high-congested areas, proper warning lights will be used in addition to the above.
- Impalement caps shall be used on all rods that hold up the snow fence where an impalement hazard is present or on any protruding sharp object where a fall could cause an impalement.

8.0 At the end of each day's work, as much of the trench/excavation as practical must be closed. No more trenches will be opened at any one time than is necessary.

9.0 When digging equipment is being used, Teammates and the public are to be kept at a safe distance. Except for training purposes, only the Operator is permitted to be on the digging equipment while it is in operation.

10.0 In excavations, including those in which Teammates may be required to enter, spoil piles, equipment or other materials will be effectively stored and retained at least two feet from the edge of the excavation.

11.0 Teammates are not to work in excavations where water has accumulated unless proper controls have been made to remove the water. Excavation report must be updated to provide what controls were put into place to remove water accumulation. Reference Section 8 Appendix A.

12.0 No Teammate is permitted underneath loads handled by lifting or digging equipment.

13.0 Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of our Teammates.

14.0 Teammates working in Excavation near vehicular right of way shall be protected from vehicular traffic. Traffic control zone shall be erected per MUTCD or other governing bodies for traffic flow and road speed.

- 14.1 Where necessary, Teammates shall be qualified per state and local requirements for TCZ design and construction.
- 14.2 Any time Teammates are required to flag traffic they shall be adequately trained and equipped.
- 14.3 This situation requires teammates to wear an O2 monitor when deemed necessary by a competent person.

15.0 Excavations greater than 6ft in depth shall require the use of engineer walkways when Teammates will be required to cross over the excavation. Walkways shall meet OSHA compliance standard (1926.502(b)).

**Rule 803. . . . . Competent Persons**

1.0 Competent Person shall conduct a daily inspection prior to the start of work and as conditions change. Reference 3.0 rule 803. Some samples would include:

- situations that could result in a possible cave-in;
- indications of failure of the protective system;
- hazardous atmospheres; and/or
- other hazardous conditions.

2.0 When any of the above conditions exist, exposed Teammates should be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

3.0 An inspection will be conducted daily by the Competent Person prior to the start of work or as conditions change. Some examples would include but are not limited to: Weather conditions, heavy equipment use, duration of work, a change in shift or a change in Teammates.

4.0 Each inspection must be documented on an approved excavation report prior to any Teammate entering or occupying a trench.

5.0 All soil analysis inspections shall be made using the Excavation Inspection Report found in Appendix A and shall include at least:

- one visual test, and
- one manual test.

Testing methods shall be noted on the excavation report.

6.0 Competent Persons will have sufficient training through an approved Team Fishel competent person training to identify soil types and classifications, identify other excavation hazards, and establish protective systems to be used in accordance with 1926.652.

- Supervisors, Foremen, Crew Leaders, Equipment Operators and Safety Coordinators must all have Competent Person training.

7.0 Supervisors, Foremen, Crew Leaders and Equipment Operators shall have 8-hour Competent Person training prior to being engaged with any excavation activities.

7.1 All other Teammates involved in excavation activities shall have either Competent Person Training or Trench Safety Awareness Training (mandatory) prior to performing any excavation activities.

7.2 All Teammates will have appropriate refresher training every two years for Competent Person Training and annually for Trench Safety Awareness Training.

8.0 Testing and control is required when hazardous atmospheric conditions exist or could reasonably be expected to exist.

9.0 Competent Persons shall have the authority to take prompt corrective action, including shutting down the job until corrective actions are taken.

## Rule 804. . . . . Utilities and Utility Locating

1.0 Before excavating in the vicinity of buried utilities, such utilities will be located as accurately as possible in accordance with Team Fishel's Utility Locating Procedures (see Section 10, Utility Locating Procedures, for more information).

## Rule 805 . . . . . Protective Systems

1.0 All shoring systems shall be installed in compliance with the manufacturer's tabulated data and 1926.652.

2.0 Timber shoring is strictly prohibited and shall only be used with prior approval of an Officer of Team Fishel.

## Rule 806 . . . . . Cave-In Rescue

1.0 If a cave-in occurs and a Teammate is trapped, the best way for other Teammates to help him or her is to do the following:

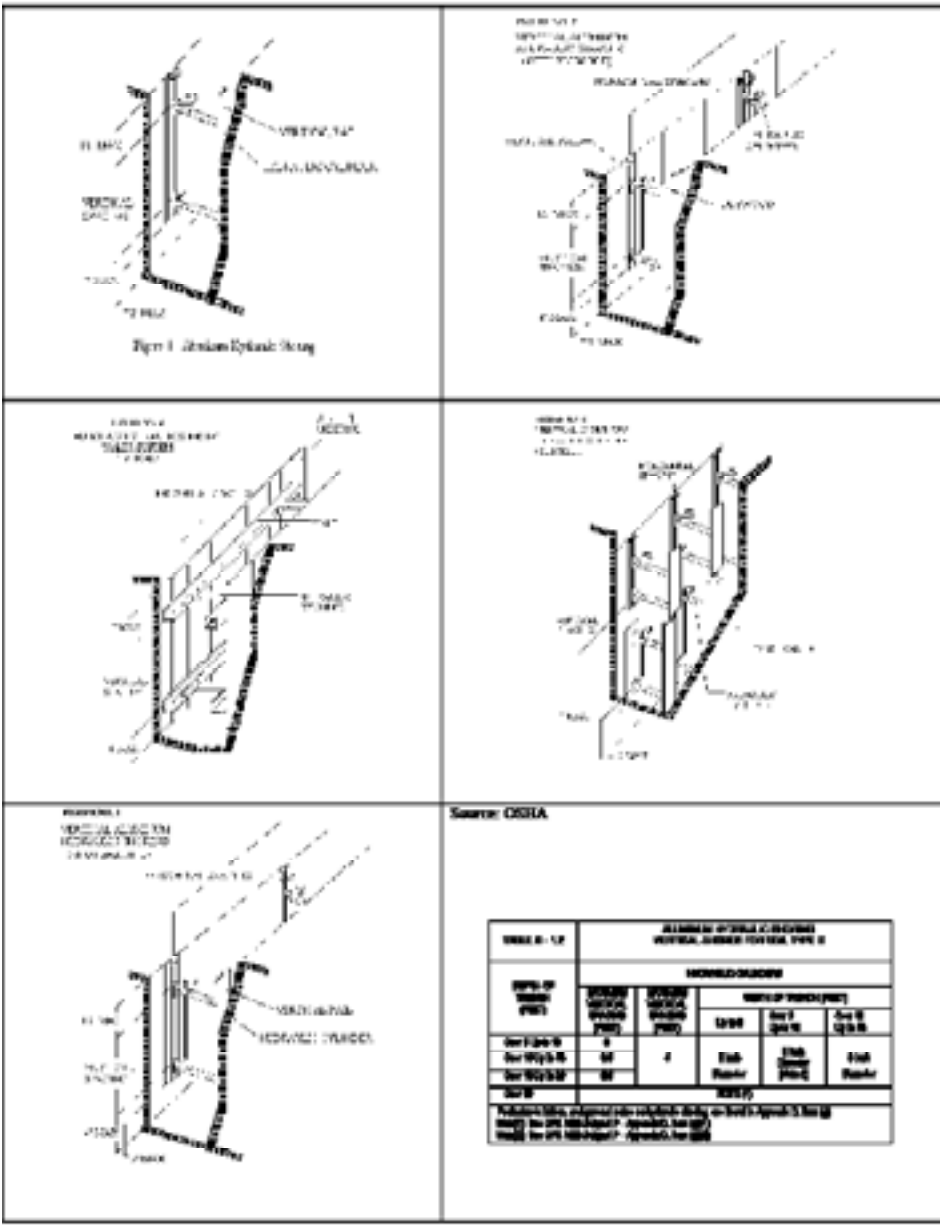
- A Teammate should call 911 immediately.
- Teammates should get out of the trench immediately.
- Teammates should never jump into the trench to help. They could become victims of cave-ins themselves.
- The caller should communicate the type of emergency clearly to the 911 operator so as to ensure the appropriate response.
- The Area Manager, Safety Coordinator, Supervisor and Corporate Safety Team must be notified.
- The exact time must be noted.
- The locations of the trapped Teammate(s) must be noted.
- The victim's hand tools should be left in place. This could help rescue workers locate victims.
- All heavy equipment should be shut down.
- Everyone should be kept back at least 50 feet from the edge of the trench.
- Any nearby traffic that might cause vibration should be stopped.
- A designated Teammate should watch for rescue personnel and direct them to the site.
- Heavy equipment must never be used to try to dig the trapped Teammate out of the dirt. Severed limbs or decapitation could occur.

# APPENDIX A:
# EXCAVATION INSPECTION REPORT

Inspections are to be completed daily, before the start of each work shift and as conditions warrant for any trench or excavations before anyone is allowed to enter the trench.

| **General Conditions** | |
|---|---|
| Inspect, check and document all that apply. | |
| Depth: _____ Length: _____ Width: _____ | |
| Soil Test | Soil Type B C |
| Set back | 2 ft - equip/material from edge |
| Ladder Use | 3 ft - rungs extended above landing |
| Access/Egress | 4 ft - trench depth & access every 25 |
| Protection | 5 ft - trech depth |
| Walkways/Falls | 6 ft - over trench |
| Have equipment inspection reports been completed for each piece of equipment? Yes ❑ No ❑ | |

| **Description of Protective System** | | **Competent Person** | **Time** | |
|---|---|---|---|---|
| Bench | | | | |
| Slope | | | | |
| Shore | | | | |
| Box/Shield | | | | |
| Tab Data | | | | |
| **Special Considerations** | | | | |
| Water | ❑ Protection for TM's from water accumulation | | ❑ Atmosphere | ❑ Test performed as necessary |
| Utilities | ❑ Protection/support for utilities in trench | | ❑ Ventilation | ❑ Forced air ventilation necessary |
| | ❑ All hotlines properly guarded & protected | | | |



Source: OSHA

Rule 901 . . . . . .General Compliance Requirement and Definitions
Rule 902 . . . . . .General Requirements
Rule 903. . . . . .Identifying a Confined Space
Rule 904 . . . . . .Evaluating Confined Space Hazards
Rule 905 . . . . . .Classifying the Type of Confined Space
Rule 906 . . . . . Preventing Unauthorized Entry
Rule 907. . . . . .Confined Space Entry Procedures
Rule 908 . . . . . .Confined Space Rescue Procedures
Rule 909 . . . . . Required Equipment
Rule 910 . . . . . Confined Space Entry Training
Example A . . . . . Confined Space Pre-Entry Checklist & Inspection Form

## Rule 901 . . . . . .General Compliance Requirements and Definitions

1.0 General Compliance Requirements

In the event that there are questions and/or topics that are not addressed in Section 9 of this manual, Team Fishel will adhere to the appropriate Occupational Safety and Health Administration (OSHA) Standards . The OSHA Standards that may apply are likely to be found in one of the following: (i) 1910 .146 Permit Required Confined Space, (ii) 1926 .21 (b)(6) Safety Training and Education, (iii) 1926 Subpart AA, and (iiii) ANSI Z117 .1-1989 American National Standards Institute. For work being performed in Enclosed Spaces follow OSHA 1910.269 (e) and (t)

Team Fishel is also required to follow the safety guidelines set forth by its customers when working on or around their facilities. The customer's policy shall control all work being performed by Team Fishel, except as noted in Rule 905, 1.3 regarding non-entry into permit-required confined spaces. Specific customer guidelines addressing confined space entry shall be in place prior to commencing work. If the customer's policy or direction puts any Teammate or the general public at risk, or if the customer's policies do not meet the minimum requirements of any of the applicable OSHA Standards, or Fishel policy, Team Fishel's Safety Director should be consulted immediately for direction. A copy of Team Fishel and the customer's safety policies and procedures shall be retained onsite when work is being covered under customer guidelines.

2.0 Multi-Employer Entry Procedures

2.1 When employees from more than one employer must enter the same confined space simultaneously, the host contractor or owner of the space shall ensure work assignments of one employer do not pose hazards to another employer's personnel. In the absence of an owner/host, the Entry Supervisor shall ensure work activities do not pose a hazard to any Authorized Entrants. Such assurance may be met by conducting and documenting a pre-entry briefing with all affected parties.

3.0 Definitions

**Air Monitoring Devices (AMD)** – Electronic devices used to detect hazards in the confined space air. AMDs contain sensors that measure the concentration of a particular gas or vapor in the air in relation to maximum safe levels prescribed by OSHA.

**Asphyxiating Atmospheres** – An atmosphere where there is not enough breathable oxygen or where there are toxic or poisonous substances present in quantities high enough to be immediately dangerous to life and health (IDLH).

**Authorized Attendant** – The person designated to observe those working in a Permit Required Confined Space. When entrants inside the space cannot be directly observed, some form of communication shall be established to maintain contact. This can include a radio, direct voice communication, or use of a signal line. Every Permit Required Confined Space entry requires a trained and certified attendant to remain on duty outside of the space until all personnel have exited the space. Attendants must have completed all training requirements for confined space entry according to this policy.

**Authorized Entrant** – - A designated person who is authorized by Team Fishel to enter a non-permit required confined space (NPRCS). Entrants will have completed all training requirements and be certified according to the requirements of this policy.

**Entry Supervisor** – A designated trained and certified Teammate who is responsible for planning and supervising the entry, overseeing all work operations within the confined space, ensuring the overall safety of the confined space, and terminating the entry operations when complete.

**Confined Space** – A space that: (1) is large enough and configured so that a Teammate can enter bodily and perform assigned work; (2) has limited or restricted means for entry or exit (e.g., vaults, manholes, steam or utility tunnels and pits); and (3) is not designed for continuous Teammate occupancy.

**Entry (Into A Confined Space)** – OSHA defines entry as occurring when any part of an entrant's body breaks the plane of an opening into the space.

**Explosion-Proof Lighting** – Lighting designed to eliminate sources of ignition inside a confined space.

**IDLH** – An OSHA hazard classification meaning "Immediately Dangerous To Life and Health." Any condition that poses an immediate or delayed threat to life or can cause long-term chronic illness, or that would prevent an entrant from escaping unaided from a confined space are considered IDLH.

**Non-Permit Required Confined Space (NPRCS)** – a confined space that does not contain, or with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

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

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

**Non-Spark Tools** – Tools made with special alloys that are safer than typical steel tools and can reduce the chances of creating sparks in explosive or flammable atmospheres.

**Permit-Required Confined Space (PRCS)** – A space that meets the definition of a confined space AND has one or more of the following conditions:

- Atmospheric hazards which can be asphyxiating, toxic, flammable or explosive.
- Configuration hazards, in which the size or shape of the space can trap an entrant or make escape or rescue difficult.
- Energy hazards such as contact with live electrical lines or unguarded equipment, steam or other sources of heat inside the space.
- Other serious hazards such as falls, burns or high noise levels.

**Prohibited condition** – means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

**Retrieval system** – means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

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

## Rule 902 . . . . . .General Requirements

1.0 Team Fishel shall not perform work in any permit-required confined space, unless the space can be entered after following alternate procedures as outlined in Rule 905 of this policy or the space can be reclassified as a non-permit required confined space (NPRCS). See OSHA 1910.269 (e) and (t)

2.0 Prior to entering the confined space, the designated Entry Supervisor shall evaluate the workplace and determine if any entry is necessary. Only designated, authorized, and trained entrants may enter a NPRCS and only after the space has been approved for entry by the designated Entry Supervisor.

3.0 Because confined space entry is not a normal activity for teammates, this hazardous task must be planned well in advance with help from your area Safety Coordinator. The team should preplan the entry well before the actual entry date. A dry run of all equipment and procedures should take place whenever possible..

## Rule 903. . . . . Identifying a Confined Space

1.0 A confined space is a space that:

- is large enough to permit a Teammate to enter to perform assigned work;
- has limited entrances and exits; and/or
- is not designed for Teammates to work in continuously.

2.0 Types of confined spaces include:

- tanks;
- silos
- pits;
- ducts;
- electrical vaults;
- manholes;
- steam tunnels
- utility tunnels; and
- large diameter sections of pipe.

## Rule 904 . . . . . Evaluating Confined Space Hazards

1.0 There are two hazards associated with confined spaces: those that are life threatening (IDLH) and those that can cause injury.

1.1 Life threatening – There are three major elements found in confined spaces that are an immediate threat to life. Teammates will never enter a confined space that is labeled IDLH. In the event a confined space is considered IDLH, Team Fishel will subcontract the work required.

1.1.1 Asphyxiant: a condition that has depleted the oxygen levels in a space by either displacement by another gas or vapor, or consumption whereby the oxygen has been used up.

1.1.2 Combustible: a condition in the atmosphere of a space that has accumulated various forms of a gas or vapors that are ignitable.

1.1.3 Toxic: an atmosphere that may or may not be combustible but is incompatible with human respiration and will affect habitation of the space.

1.2 Injury producing - There are several other hazards associated with confined spaces that must be eliminated before entry may be made.

1.2.1 Noise: because the space is enclosed, sounds reverberate and may exceed permissible limits.

1.2.2 Temperature: extreme heat or coldness, poor ventilation and high humidity can exceed an entrant's toleration limits, causing distress and associated symptoms such as heat exhaustion, heat stroke, frostbite, etc.

1.2.3 Falls: dampness causes metal hardware to corrode or creates slippery walking conditions. These conditions, combined with poor lighting, can cause loss of balance and falls.

1.2.4 Energized equipment: All sources of energized equipment such as mechanically moving parts, electrically energized equipment, steam, pneumatice, hydraulic, or any other known hazard must be either locked out or covered in such a way as to eliminate the hazard for all entrants.

2.0 Oxygen hazards: too much oxygen in the air can mean that materials such as grease and oil on clothing can catch fire at normal temperatures when exposed to sparks or flames. Too little oxygen in the air can result in illness and injury to the Teammate inside the space.

2.1 OSHA-defined oxygen levels

- 23.5% and above = high oxygen levels
- 20.8% to 21% = normal oxygen levels for air
- 19.5% and below = low oxygen levels

3.0 Toxic hazards: toxic atmospheres include gases, vapors or fumes that have poisonous effects. Common toxic atmospheres include hydrogen sulfide, sulfur dioxide and carbon monoxide.

4.0 Flammable or explosive hazards: a flammable or explosive hazard contains gases, vapors or dusts in concentrations large enough to explode. Methane gas is a common flammable atmosphere. It is important to remember as temperatures rise flammability may increase due to increased vapor release.

5.0 Engulfment: defined as a shifting solid substance that traps a Teammate. Engulfment can be fatal by inhaling the substance or by the Teammate being surrounded by the material causing strangulation, constriction or crushing. Soil is an example of an engulfment hazard.

6.0 Energy hazards: these involve contact with electrical equipment, steam, or other sources of heat inside the space, or the release of pneumatic or mechanical energy within the space.

7.0 Other hazards: these include falls caused by loose rungs on manhole fixed ladders, slippery floor surfaces, high noise levels within the space, standing or freely flowing water, or improper use of personal protective equipment (PPE).

7.1 Fixed ladders that are in good repair and have no defects are not considered to be a fall hazard as long as they are less than 20 feet in height.

## Rule 905 . . . . . Classifying the Type of Confined Space

1.0 Permit-required confined space (PRCS)

1.1 OSHA defines a PRCS as one that may contain or develop one or more of the following hazards:

- lack of oxygen
- toxic atmosphere
- biohazard
- slips and falls
- engulfment
- mechanical hazards
- electrical hazards
- configuration

1.2 If the defined confined space has any of the potential hazards described above, it is then considered a PRCS.

1.3 Team Fishel shall not enter into a Permit Confined Space. Teammates performing routine work in Enclosed Spaces covered by 1910.269 standards and if the only potential hazards in the manholes and vaults are electric, then the requirement of 1910.269 (e) and (t) apply.

2.0 Non-permit required confined space (NPRCS)

2.1 If, after initial testing from outside the space, none of the above hazards exist, the space may be reclassified as a NPRCS. The Confined Space Pre-Entry Checklist & Inspection Form Example in A or one similar must be completed.

2.2 OSHA has determined that confined spaces that have had all hazards eliminated can be reclassified as non-permit spaces for as long as the hazards remain eliminated. Continuous forced air ventilation controls atmospheric hazards; it does not eliminate them.

3.0 Alternate entry procedures

3.1 Team Fishel may use the alternate procedures specified in paragraph (c)(5) of OSHA Section 1910.146 for entering a permit space under the conditions set forth in paragraph (c)(5)(ii) of the same section. They are as follows:

3.1.1 Team Fishel can demonstrate that the only hazard posed by the permit space is an actual or potential hazardous atmosphere,

3.1.2 Team Fishel can demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry, and

3.1.3 Team Fishel develops monitoring and inspection data that supports the demonstrations required by paragraphs (c)(5)(i)[A] and (c)(5)(i)[B] of OSHA Section 1910.146.

## Rule 906 . . . . . Preventing Unauthorized Entry

1.0 Only trained and authorized Teammates are allowed to enter a confined space.

2.0 An authorized and designated Attendant shall be charged with monitoring the space and ensuring only authorized and trained personnel are allowed to enter. The designated Attendant shall immediately notify the Entry Supervisor when unauthorized entry is made or attempted.

3.0 The Entry Supervisor shall stop all entry activity anytime hazards or potential hazards are found to exist or when an unauthorized entry is attempted. Entry may only be resumed once all hazards have been eliminated and all non-compliant issues resolved.

## Rule 907. . . . . .Confined Space Entry Procedures

1.0 All confined spaces will be pre-tested that have the presence of the test hole before the cover, hatch, or door is fully opened with the appropriate tools. This test is to determine if combustible gases are present which might ignite if a spark or flame is present. If the entryway does not have a test hole, after testing around the lid only partially open just enough to slip the hose in. Use only non-sparking tools to achieve this task.

1.1 Teammates may request additional monitoring at anytime.



2.0 Once it is determined that the space can be opened, tests shall be made at upper, middle and lower levels of the space. The tests shall sample for oxygen deficiency, toxic vapors and combustible gases. Initial testing must be done from outside of the space. The tests must be recorded on theConfined Space Inspection Report Example in A. A calibrated direct-reading gas detector (AMD) issued by Team Fishel will be used. An entrant will observe the readings on the AMD prior to entry.

3.0 Forced air ventilation must be provided and readily available for use at each work location whenever a Teammate is in the enclosed space and when atmospheric conditions deems necessary. The ventilator should be set up so that it is not drawing hazardous gases into the space, such as exhaust fumes from nearby traffic . The blower must be of such size and capacity that it provides sufficient clean air as required by OSHA. Once forced air ventilation is begun it shall continue until all entrants have exited the space.

3.1 If toxic vapors or combustible gases are found and cannot be cleared with forced air ventilation, Teammates are not authorized to enter the space. Entry must be subcontracted to a company having the necessary rescue equipment and training to enter the space.

4.0 Teammates entering confined spaces shall be provided a portable confined space monitor (AMD) issued by Team Fishel or a portable AMD kept by the Authorized Attendant, which shall remain in use at all times while the space is occupied. Entrants may view the readings on the monitor before proceeding into the NPRCS.

5.0 An alarm condition on the air sampling monitor or other condition recognized by the trained Entrant(s) that could downgrade the NPRCS to PRCS shall be the cause for immediate exit from the space until such time as the hazards can be removed or mitigated and the space returned to NPRCS. In the event of an alarm condition see above Rule 3.0. In the event of an alarm condition see above rule 3.0.

6.0 An Authorized Attendant shall be stationed at the Permit Required Confined Space entry for the duration of the entry operation; he shall have no other duties that could distract him from his primary responsibility. Visual and voice communication should always be maintained. An Authorized Attendant may not monitor more than one permit required confined space.

7.0 Continuous air monitoring shall occur during the entire entry. If the monitor goes into error mode or the battery fails, the entry must be stopped until proper air monitoring can be established.

8.0 The attendant is expected to monitor the weather conditions as well as any other conditions that could adversely affect the entry procedures. Traffic or pedestrians may also need to be closely monitored. Attendants should keep good notes including time of entry, communication between attendant and entry teammates, hydration of entrant, weather conditions and air monitor readings.

## Rule 908 . . . . . Confined Space Rescue Procedures

1.0 Should a Teammate be overcome by a lack of oxygen or other circumstance that renders them unable to affect a self-rescue, fellow Teammates must not enter the space to attempt a rescue.

2.0 From the entry position the forced air ventilation hose should be moved as close to the unconscious Teammate's face as possible.

3.0 Teammates should call 911 immediately.

- In areas where 911 services are not available the Safety Coordinator shall publish a list of all appropriate rescue services and make such list available to the Entry Supervisor prior to beginning work.
- Such list shall also be made available to the Supervisor, if different from the Entry Supervisor, and anyone else deemed essential to the entry/rescue process.

4.0 A designated Teammate shall stand by the space entry to keep other Teammates out of the space and to direct emergency rescue personnel to the rescue location.

5.0 Rescuers must be trained in and follow established emergency procedures and use appropriate equipment and techniques (lifelines, respiratory protection, attendants, etc.).

6.0 In the event a rescue needs to be made on non-permit required confined spaces, rescue services must be either:

1. Provided by the host facility, or
2. Provided by an outside service which is given an opportunity to examine the entry site, practice rescue, and decline as appropriate, or
3. Provided by the employer by selecting a rescue team that is equipped and trained to perform the needed rescue services.

7.0 If reliance is on the host facility, it must be stated in the contract and or documented prior to the start of work. Teammates who are trained to perform rescues must practice these rescues annually.

8.0 If an injury occurs such as a cut or a sprain to the entry teammate that does not involve a hazardous atmosphere condition, the attendant may assist the entry teammate in getting out of the space but shall not enter themselves. Additional teammates may enter if properly trained.

## Rule 909 . . . . . Required Equipment

1.0 Whenever a Teammate is working in a confined space, the following equipment and/or tools will be used.

1.1 A multi-gas monitor or atmosphere detector (AMD). The AMD must be calibrated and bump tested prior to daily use and capable of instant-readings for oxygen, carbon monoxide, explosive gases such as methane, and toxic gasses such as hydrogen sulfide. Atmospheric checks must be performed at the top, middle and bottom of the space.

1.2 An air blower or ventilator capable of generating enough fresh air to ventilate the confined space. Blower capacity is measured in CFM (cubic feet per minute) velocity. The size of the confined space is measured in cubic feet as L x W x H (length, width, height).

1.3 Blower hose. Blower hose lengths shall be chosen to provide maximum capacity for each entered space. Hose and blower units should be matched, same manufacturer to assure proper fit.

1.4 Entry equipment, which includes ladders, manhole cover hooks, barriers to prevent falling objects from striking an entrant working below the opening, guardrails to alert pedestrians and fellow workers of a potential fall hazard, or other equipment needed to open or enter the space.

1.5 Ground fault protectors, which are designed to protect Teammates from electrical shock when working in damp or wet locations.

1.6 Barricades. These could be either pedestrian and/or vehicle barriers (to include all appropriate signage) which may be needed to protect the space entrance

1.7 Retrieval system. A retrieval system is required to be set up at each permit-required confined space location. During a Non-Permit or Alternate Procedures Entry, a retrieval system should be onsite and available if needed or deemed necessary by the Entry Supervisor.

1.7.1 Authorized Entrants using an retrieval system shall only enter a confined space when properly trained in fall protection and rescue procedures set forth in 1910.146 and 1926 Subpart AA.

## Rule 910 . . . . . Confined Space Entry Training

Confined Space / Permit Confined Space (OSHA 29 CFR 1910.146)

- Program shall specify requirements of training be conducted prior to initial assignment, prior to a change in assigned duties, and if a new hazard has been created or special deviations have occurred.

1.0 Teammates who must work in confined spaces will be made aware of the potential hazards and actual risks associated with confined space entry.

1.1 Teammates assigned to use air monitoring equipment must be trained in the use, calibration, and testing of the monitor, as well as how to clean, maintain, and store the unit when not in use and any adverse conditions that should be avoided to ensure proper functioning of the unit.

2.0 Team Fishel uses the Confined Space Training Program written and provided by the National Utility Contractors Association (NUCA) or United Rentals. Only a person who has successfully passed and holds a valid certificate issued by NUCA, United Rentals or another accredited agency may provide this training.

2.1 Teammates who must work in  or around confined space are required to receive Confined Space Entry Training, by a Team Fishel certified trainer, prior to beginning confined space tasks.  If duties change, and/or if new hazard is created or occurs, it is required that the teammate performing the confined space task be trained by a Team Fishel certified trainer.

3.0 Documentation of this training must be retained at the local level and entered into the Team Fishel HRIS tracking system. Initial training must be refreshed or updated every two years.

# EXAMPLE A:
# CONFINED SPACE PRE-ENTRY CHECKLIST & INSPECTION FORM

Date: _____Time: _____ Location:_____

Purpose and description of work requiring entry:

_____

_____

Personnel Present:

| **Print Full Name** | **Designation** | **Entry (Yes/No)** |
|---|---|---|
| | Supervisor | |
| | Competent Person | |
| | Observer | |
| | Authorized Teammate | |
| | Authorized Teammate | |
| | Authorized Teammate | |

Required Atmospheric Testing:

| | Initial Test 1 | Test 2 | Test 3 | Test 4 |
|---|---|---|---|---|
| Date | | | | |
| Time | AM/PM | AM/PM | AM/PM | AM/PM |
| Oxygen | % | % | % | % |
| LEL | % | % | % | % |
| CO | PPM | PPM | PPM | PPM |
| H2S | PPM | PPM | PPM | PPM |
| | | | | |
| Tested by: | | | | |

Hazards Checklist:

| Hazard | Yes | No | If Yes, how is hazard controlled: |
|---|---|---|---|
| Source isolation | | | |
| Ventilation | | | |
| Falls | | | |
| Traffic control | | | |
| Temperature | | | |
| Insects/rodents | | | |
| Other | | | |

Does the workplace contain permit-required spaces? Yes:____ No:____

Permit confined space reclassified as non-permit required? Yes:____ No:____

Alternate procedures followed? Yes:____ No:____

**Team Fishel strictly prohibits entry of any permit-required confined space. No Teammate shall enter a permit-required confined space until it can be reclassified as non-permit required, or alternate procedures can be followed as defined by Rule 905 – 3.0 of Team Fishel's Confined Space Entry Procedures.**

Inspector's Signature: _____ Date: _____

Rule 1001 . . . . . Utility Location and Identification
Rule 1002. . . . . Potholing Procedures
Rule 1003. . . . . Damaged Utility Procedures
Rule 1004. . . . . Gas Line Hit Safety Procedures
Rule 1005. . . . . Training and Awareness Program
Appendix A . . . . . Color Code for Marking Underground Utility Lines
Appendix B . . . . . Daily Utility Locate Inspection Form (DFR)

## Rule 1001 . . . . . Utility Location and Identification

1.0 Purpose

The purpose of these procedures is to ensure that all underground utilities are properly located and identified before any excavation work begins. Utilities that are buried underground can be very dangerous. Before excavating, Teammates need to know what lies beneath the soil surface. These procedures are intended to assist in planning and executing an accident-free excavation. This procedure is consistent with the excavation industry's best practices and generally follows the damage prevention laws of the states we operate in. It is not designed to be inclusive of every state's 811 laws so it is incumbent on every Teammate to ensure that they are following this policy, OSHA's excavation regulations, and the laws of the state in which the excavation is occurring.

2.0 Definitions

**Blind Shot** – Typically refers to the proposed path of a directional drill shot that crosses, or parallels within three feet of a marked facility, which we are not permitted to or able to pothole.

**Excavation** – For purposes of these procedures, the term excavation refers to all tasks that penetrate the ground. These include, but are not limited to, open cut digging with an excavator, trenching, drilling, boring, driving pins or stakes, hand digging, vacuum excavation techniques (water or air), etc.

**Locate** – To indicate the existence of a line or facility by establishing a mark through the use of stakes, paint or some other customary manner, that approximately determines the location of the line or facility.

**Locate Request** – A documented communication between an excavator and a one-call center in which a request for locating an underground facility is processed. A locate request is legally documented on a Locate Request form, assigned a unique document number (ticket number), and maintained by the one call center and excavator. This documentation is commonly referred to as a locate ticket and typically precedes the excavation process by two days, or 48 hours.

**No Dig Zone** - An area extending a specified distance (usually 2 feet but actual distance may vary by state. See Appendix B) in all directions around the approximate utility location where the use of mechanized equipment should not be used unless Area Manager has given permission and supervisor has signed off on it in the ULP section of the JHA. is prohibited. The No-Dig, or Tolerance Zone, extends from the outer edges of the marked utility, not from the center of the mark.

**Positive Response** – Communication with the excavator, prior to excavation, to ensure that all contacted utility owners/operators have located their underground facilities and have appropriately marked any potential conflicts within the area of planned excavation. Usually in the form of a fax or e-mail to the excavator from the one call center.

**Potholing** - The practice of digging a test hole to expose underground utilities and verify the exact horizontal and vertical location of the facility within the NO DIG ZONE. Potholing may be done with a shovel or with soft-excavation methods such as air or water vacuuming but not with mechanized equipment. When excavation must occur under a roadway, parking lot, or sidewalk it may be necessary to use some mechanized equipment (cut saw, jackhammer, etc.) to cut and remove the concrete or asphalt covering the utility location.

**Remark Request Ticket** - When initial or updated locate markings have become illegible due to effects of weather, other excavations, landscaping or site grading, etc., the marks must be refreshed before safe excavation can proceed. A remark ticket is the same as a new locate request and usually requires a 48-hour notice (length varies by state).

**Three-Hour Notice (emergency ticket)** – A short-notice request to the state one-call center designed to elicit a rapid response from a locator when it is determined that there is clear evidence of an unmarked underground facility in the area of the planned excavation, or at any time while the excavator's ticket is valid and an unmarked facility is discovered. Short-notice tickets are not recognized in every state, these emergency tickets are meant to be used to protect life and property.

3.0 Prior to excavating

3.1 Locating procedures

- At the start of each job, a Teammate shall be designated to review the latest drawings and/or work order and establish contact with all utility companies. This Teammate will also contact the local One-Call service at the required number of working days prior to the excavation to have all services marked (see Appendix B).
- It is also important to know which, if any, companies have utilities in the right-of-way (ROW) that do not belong to the One-Call service in the area so a Teammate can make direct contact with them.
- Each state stipulates a NO DIG ZONE, requiring that marked utilities be potholed a certain distance on either side of the utility locate mark (see Appendix B).
- Each state stipulates the length of time that locate marks by underground locating services are usually good for (See Appendix B). Teammates must know how long the locate marks are good for in their particular area. The locate marks must be kept current and may need refreshed several times. Good recordkeeping of locate requests is essential to verifying underground utilities. Good recordkeeping is also an essential part of a good investigation should a utility be struck during the excavation.
- NO DIG ZONES, locate marking procedures, waiting periods, remarking and refresher marking instructions, and all other locate-related information may be obtained for every state by calling 811.

3.2 Job Hazard Analysis

- Whenever reasonable or necessary, representatives from utility companies shall be invited to a pre-job conference to review work schedules, plans, utility location(s), and to provide emergency contacts in case of a mishap.
- Whenever work is performed in any existing residential neighborhood, Team Fishel Door Hangers shall be hung on each property owner's door in a timely manner prior to beginning work. This practice will not apply in those circumstances that do not provide the time necessary, such as emergency call-outs.
- Whenever it is reasonable or necessary, a Team Fishel representative shall set up a meeting with the underground utility locating service as soon as possible before digging starts. They should be shown the proposed route so they can ensure there are adequate personnel to locate the utilities when and where needed. Once the site is marked and reasonable measures have been taken to pothole and clear all utilities within the NO DIG ZONE, excavation may begin. Underground lines must be protected once they are exposed.
- When necessary to use mechanized equipment inside the No Dig Zone, Teammates shall have approval from the Area Manager and the Supervisor must be on site to sign off on the proposed excavation using the ULP section of the JHA. Teammates must follow all potholing procedures to identify the utility and protect it against any type of strike by the equipment.
- Whenever it is reasonable or necessary, prior to mobilizing, a designated Teammate shall survey the site to make sure the locators didn't miss anything with obvious signs, i.e. gas vents, marker posts, irrigation vents, manhole covers, etc. Photographs and or video should be taken to document the site. If there are signs of any missed locates, the appropriate Teammate shall make a Three-Hour Notice to the One-Call Center and contact the utility locator to confirm that the work is clear of utility lines. The Teammate shall document this call with the one-call service. If the locator is unable to respond immediately, the Teammate shall contact the appropriate Supervisor. The Supervisor shall contact the state one-call center to report the site was not marked properly and that they

need to expedite the appropriate utility owner to locate it immediately. Work at such a location may only proceed once the unmarked facility is found, unless approval is given by an Area Manager.

4.0 On the job site

4.1 Proper planning and daily inspections

- The Daily Utility Locate Inspection Checklist must be completed by the Foreman or designated Teammate prior to beginning each work shift (see Appendix C).
- Valid locate tickets must be available on the jobsite. All excavations require a positive response for all 811 members.
- If required by the utility company, the locator or utility representativemust be on site to monitor the operations when the risk to safety and/or financial exposure is high.
- A Team Fishel Supervisor must be on site to approve all critical crossings and/or parrelling utilities while using any mechanized equipment inside the No Dig Zone.
- Locate equipment shall be calibrated daily and per the manufacturers recommendations in an interference-free environment prior to performing any drilling, and as conditions of the job dictate.
- If there is clear evidence that a utility is present but unmarked, the Foreman or the designated Teammate in control of the project shall contact the Supervisor and notify him or her of the potential conflicts. The Supervisor must contact the One-Call Center to report any unmarked utilities and work may not proceed until utility is located or the crew is otherwise released by the One-Call center, utility owner, locator, or the Area Manager to begin excavation.
- Upon notification from the field of any potential conflicts, the Supervisor shall first notify the One-Call Center and then notify the locator for the utility in question and request that all conflicts be resolved. Any direct contact with the third-party locator must be documented with a call to the one-call center. For all states that have an established 3-hour Ticket Policy, the Supervisor shall also notify the one call system either directly or by calling 811, and specify the unmarked utility. We must wait the full 3 hours before proceeding unless otherwise advised by the utility.
- If a utility remains unlocated after the initial 2-day marking period and the subsequent 3-hour notice period, the Teammate in charge of the excavation must acquire the approval of an Area Manager in order to proceed with the excavation.
- An Area Manager's approval is required prior to proceeding with any blind shot. Lack of proper locates does not constitute a blind shot.

4.2 When excavating (Reference Section 8)

- All excavations shall comply with all ROW owner, OSHA and Team Fishel standards, and state damage prevention laws, regulations and policies.
    - All open cuts that are not backfilled must be properly protected to prevent any public injuries or accidents
- Deliberate violations of state damage prevention laws to a utility is considered to be breaking the law.
- If a subcontractor has not performed utility locates according to this policy, all work will be halted until such utility locates have been performed.
- Teammates performing the excavation must know the location of all utilities at all times.
- Gas lines and electric cables have the potential to be extremely dangerous and must be located, marked and protected. Examples of protection would be to follow the no dig zone procedure and physical barriers.

- When hauling material near open trenches, the route must be planned accordingly.
- Whenever a crew is crossing a high pressure gas line, a representative of the gas company shall be present when required by the gas company.
- Once underground utilities have been located, Teammates should never assume that the utility will continue on the same line or at the same depth. That is why potholing is so important.
- Teammates should never excavate where a pipeline is known to carry a hazardous substance until the pipeline has been located by potholing or other proven and acceptable methods at intervals sufficient to determine its exact location.
- If necessary, open-cut work must be braced, sheeted or shored to eliminate damage to underground utilities Per OSHA Subpart P.
- If necessary, underground utilities in trenches should be supported to minimize strain to the system. – Per OSHA Subpart P.
- Backfill material must be free from rocks and other materials that could damage the utility. When backfilling, you shall follow all State 811 dig laws.
- If placement of the product by boring method requires going under an existing utility, 24 inches of clearance in all directions shall be maintained during the utility crossing.
- The pothole shall remain open until the drill shot is completed

4.3 Emergency Excavation or Repair

- Whenever it is necessary for Team Fishel crews to respond to a customer emergency, the state's one-call center must be notified and a request for an emergency locate of the underground utility lines shall be made at the earliest reasonable opportunity. In cases of an emergency where it is the customer's requirement to request the emergency locate ticket through the one-call system, the Teammate responding to the customer's request shall verify that the one-call center was contacted prior to proceeding with excavating.
- If it is determined that immediate action is required, all reasonable precautions must be taken to protect the underground utility lines. These actions include, but are not limited to:
    1. Conducting a thorough site assessment to determine the existence of underground lines. This will involve looking for any utility landmarks such as valves, meters, down wires running from aerial sources, sunken trenches, etc.
    2. Locating the underground utilities with acceptable and calibrated locating equipment.
    3. Potholing to find exact utility locations.
    4. Directly notifying the utility owners if necessary. This is mandatory if a suspected utility is not a member of the one-call service.
    5. Waiting, if possible, for the utility owners to mark their lines before proceeding
- The definition of an emergency excavation may vary by state. Check the one-call center or call 811 to determine the requirements that must be met before we begin an emergency excavation or repair. Remember: a customer emergency does NOT supersede our responsibilities as an excavator.

## Rule 1002. . . . . Potholing Procedures

1.0 Purpose

The purpose of this practice is to describe the required methods and procedures for performing potholing. Potholing shall be utilized, as required and described herein, to prevent excavation damage to underground utilities.

2.0 Potholing methods

Potholing is the practice of digging a test hole to expose underground utilities to ascertain the horizontal and vertical location of the facility.

2.1 Mechanized Equipment

The use of such mechanized excavation equipment for potholing is strictly prohibited except where it is deemed necessary to remove asphalt or concrete in order to expose the underlying soil for approved pothole methods.

2.2 Hand-digging

Hand-digging a test hole with hand-held non-mechanized tools is the most common approved method of digging a pothole. As with any excavation, extreme caution should be used if digging near hazardous utilities such as electric cables or gas lines. Digging bars and probes, though hand tools, are not appropriate for potholing even in hard ground conditions. When hand digging within 2' on either side of any marked electric power line or visible sign of an underground power line or when paralleling an existing line it will be 3' on either side, at a minimum, Class 2 rubber insulated gloves with protectors shall be worn until visually located. If your Utility has a higher voltage, class 3 gloves will need to be worn. (Example, Dominion Energy has 34.5 KV which requires class 3 gloves) Reference 1926.416(a)(2)

2.3 Air and Water Vacuum excavation

Vacuum excavation is one of the best methods for non-destructive exposure of buried utilities. Vacuum excavation utilizes either air or water pressure to break up the soil and a vacuum device to collect the spoil. Of the two methods, air vacuum excavation is generally preferred, though specific site and environmental characteristics may lead to a decision to use water vacuum excavation. Hard soil generally requires the use of the vacuum method. Vacuum potholing may require additional specialized PPE such as a faceshield to protect the Teammate from airborne materials that can damage the eyes from water and mud. Refer to Section 1 Appendix B.

2.3.1 Air/Water

Air/water vacuum excavators utilize a high velocity stream to penetrate, expand and break up soil. The loosened chunks of soil and rock are then removed from the hole through the use of a powerful vacuum. In this way, a test hole is created that reveals the buried utility. Holes may vary in size and shape in order to achieve 2 foot clearance in all directions from the utility.

3.0 Requirements

Potholing is a law. It is an essential phase of underground construction for all types of excavation including horizontal directional drilling (HDD) operations. Reasonable steps shall be taken to visibly identify and determine the location and depth of any marked or unmarked utility within the NO DIG ZONE TO THE DEPTH BEING EXCAVATED OR DRILLED. Potholing shall be performed in accordance with the following requirements.

3.1 Potholes shall be dug at all utility crossings.

3.2 When utilities run parallel and within three feet of our proposed running line, additional potholes shall be dug as necessary to verify location and depth of the utility within the NO DIG ZONE to the depth being excavated or drilled. Distance between potholes will be determined during the JHA, pre-construction meeting, utility owner requirements and not to exceed 50 feet.

3.3 An Area Manager's approval is required prior to any blind shot.

3.4 Whenever a contract, law or any regulation defines certain potholing requirements, and the potholing requirements are more demanding than Team Fishel's potholing requirements as stated in this policy, the potholing requirements defined by the contract, law or regulation shall supersede Team Fishel's policies.

## Rule 1003 . . . . . Damaged Utility Procedures

1.0 Whenever job damage occurs, Team Fishel's Accident Investigation Procedures must be followed.

- If a utility is damaged, the Teammate must immediately notify his/her Supervisor, Safety Coordinator, the utility company, the One Call System, and others as appropriate. If injuries occur or if a large financial loss is possible, the Safety Director must be notified.
- Teammates should secure the scene.
- A Teammate must perform an assessment to determine the type of utility damaged. In the case of leaking gas or other hazardous substances, the Gas Line Hit Safety Procedures (see Rule 1004) must be followed.
- Photos or videotape of the damage, locate marks, and the work area shall be taken for documentation purposes.
- Teammates shall document all time and resources spent on utility repairs. A designated Teammate should send a letter to the utility denying responsibility for the damage, if the damage is not the fault of Team Fishel. When it is appropriate – and with approval from an Area Manager – a designated Teammate should send an invoice for Team Fishel's costs to the utility company.
- Photos of the repaired utility shall be taken.
- The Team Fishel Job Damage Report shall be thoroughly completed.
- The completed Job Damage Report and other supporting documentation must be sent to the Safety Coordinator and Area Manager for review.
- Reviewed reports must be submitted to Team Fishel Safety within 5 calendar days.

## Rule 1004 . . . . . Gas Line Hit Safety Procedures

1.0 If a gas pipeline is damaged or escaping gas is detected, Teammates shall follow these procedures.

1.1 All equipment and motors must be shut down unless the utility owner requires otherwise.

1.2 All open flames in the area must be extinguished. Teammates shall not smoke or use any type of ignition source.

1.3 A Teammate shall call 911 as soon as they are at a safe location.

1.4 A Teammate shall call the gas company.

1.5 All personnel must be removed from the area immidiately. Homeowners and businesses in the immediate area must be notified of a potentially dangerous conditions and evacuated. Evacuation shall take place upwind of the gas leak.

1.6 All traffic should be diverted from the area until emergency services arrive.

1.7 Teammates must follow the instructions of the gas company representatives when they arrive.

1.8 Team Fishel's Accident Investigation Procedures must be followed.

1.9 A Teammate shall contact 811 and/or private municipalities.

2.0 No Teammate shall make an attempt to stop the leak unless qualified and authorized.

## Rule 1005. . . . . Training and Awareness Program

1.0 Purpose

Work policies and procedures are only followed correctly when they have been clearly communicated and understood by those responsible for following them. To assist in making certain every Teammate understands his/her role and responsibility in the effort to reduce preventable job damages, the following training and awareness program has been developed and shall be followed.

2.0 Training Programs

2.1 Annual ULP All-Hands Training and Awareness program

At least once annually, the Area Manager and Safety Coordinator shall facilitate the meeting. The purpose of the training is to ensure that at least once annually, Team Fishel is communicating the Utility Locating Procedures to all Teammates and heightening the awareness and understanding of Team Fishel's policies and the laws of their state which are necessary to reduce the number of preventable job damages.

2.2 WorkZone ULP Training

All field Teammates are required to take and pass the Team Fishel ULP training on WorkZone. This training is to be completed annually. WorkZone logs and tracks the training performance and renewal dates and notifies the Teammate when the renewal date is approaching.

The annual Utility Locating Procedure Training (both WorkZone and All-Hands) shall be performed to satisfy the following requirements:

- The training shall be completed at least once annually.
- The training shall cover Team Fishel's Utility Locating Procedures and state one-call laws;
- The training shall include the curriculum and materials provided by the Corporate Safety Department
- That the Teammate has demonstrated a level of proficiency by passing a test directly covering the training topics.

2.3 New hire orientation

As part of every new Teammate's safety orientation, the Safety Coordinator shall emphasize the importance of Team Fishel's Utility Locating Procedures. All newly hired Teammates will be required to take and pass the WorkZone version of ULP prior to starting work in the field.

2.4 Weekly tailgates

A minimum of three weekly ULP Tailgate meetings will be conducted each year, utilizing standard Tailgates developed and provided by the Corporate Safety Department.

# APPENDIX A:
# COLOR CODE
## FOR MARKING UNDERGROUND UTILITY LINES
***Refer to local state one call for update requirements***

Colors and symbols have been adopted by all utilities subscribing to Underground Service Alert (USA). Consult your local One Call Service for utility identification. NOTE THAT NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ONE CALL SYSTEM.

The following are color-codes and symbols for marking underground facilities.

| UTILITY | COLOR |
|---|---|
| PROPOSED EXCAVATION | WHITE |
| ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES | RED |
| POTABLE WATER | BLUE |
| STEAM, CONDENSATE, GAS OR OIL COMPRESSED AIR | YELLOW |
| TELECOMMUNICATIONS, ALARM OR SIGNAL LINES, CABLES OR CONDUIT | ORANGE |
| TEMPORARY SURVEY MARKINGS | PINK |
| SEWER AND STORM DRAINS | GREEN |
| CHILLED WATER, RECLAIMED WATER, IRRIGATION AND SLURRY LINES | PURPLE |
| OTHER | LIGHT BLUE |

# APPENDIX B:
# DAILY UTILITY LOCATE INSPECTION

The purpose of this practice is to ensure that all utilities are marked and properly exposed before starting any excavation operation. The Foreman or designated Teammate shall complete the daily utility locate inspection prior the start of each work shift.

## Attach Daily Field Report with Daily Utility Locate Inspection Checklist.

DAILY UTILITY LOCATE INSPECTION CHECKLIST

The purpose of this practice is to ensure that all known utilities are marked and properly exposed before starting any excavation operation. The Foreman or designated Teammate shall complete this inspection prior the start of each work shift.

| Did you excavate today? ☐ YES ☐ NO | Service | Provide a Brief Description |
|---|---|---|
| ☐ Locates have been completed and are valid for work today. | ☐ Gas | |
| ☐ All known utility/facility marks on the ground are visible. | ☐ Electric | |
| ☐ A visual check for pedestal, riser, new trench lines, etc. was completed. | ☐ Water | |
| ☐ All Teammates have been informed of any potential hazards. | ☐ Sewer | |
| ☐ Service feeds from buildings and homes have been identified. i.e. sewer clean-outs. | ☐ Telephone | |
| ☐ HDD locate equipment was calibrated prior to the start of work and as work dictated. | ☐ Fiber Optic | |
| ☐ All exposed utilities are properly supported and have been protected. NA ☐ | ☐ Other | |
| ☐ All utilities to be crossed have been potholed and the location and depth have been verified as required by Team Fishel's Utility Locating Procedures. | | |
| ☐ All paralleling utilities within 3 feet of our path have been potholed and the location and depth have been verified every _____ feet. | | |

List any work activity requiring the crossing of an existing utility:

What is the "no dig zone" requirement? 18" ☐ 24" ☐ 30" ☐

Rule 1101 . . . . . General Compliance Requirements and Definitions
Rule 1102 . . . . . Exposure Determination
Rule 1103 . . . . . Implementation Schedule and Methodology
Rule 1104 . . . . . Personal Protective Equipment (PPE)
Rule 1105 . . . . . Housekeeping
Rule 1106 . . . . . Hepatitis A and B Vaccine
Rule 1107 . . . . . Evaluation of Circumstances Surrounding Exposure Incidents
Rule 1108 . . . . . Training
Rule 1109 . . . . . Recordkeeping
Appendix A . . . . . Hepatitis B Vaccine Declination
Appendix B . . . . . Hepatitis A Vaccine Declination

## Rule 1101 . . . . . .General Compliance Requirements and Definitions

1.0 Purpose

The purpose of this exposure control plan is to minimize or eliminate a Teammate's occupational exposure to blood or other potentially infectious materials. A copy of the exposure control plan will be made available to every Teammate within a reasonable time, place and manner.

2.0 Definitions

**Blood** – Human blood, human blood components, and products made from human blood.

**Bloodborne Pathogens** – Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis A virus, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

**Contamination** – The presence of or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Decontamination** – The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

**Exposure Incident** – Eyes, mouth, other mucous membranes, non-intact skin, or parenteral contact with blood or other potentially infectious materials that could result from the performance of a Teammate's duties.

**HBV** – Hepatitis B virus.

**HIV** – Human immunodeficiency virus.

**Occupational Exposure** – Reasonably anticipated skin, eyes, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of a Teammate's duties.

**Other Potentially Infectious Materials** – (1) Semen, vaginal secretions, cerebrospinal fluid, saliva, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. (2) Any unfixed tissue or organ (other than intact skin) from a person (living or dead).

## Rule 1102 . . . . . .Exposure Determination

1.0 The construction industry is not covered by the bloodborne pathogens standard. However, the general duty clause (section 5(a)(1) of the OSH Act) will be used by OSHA to protect Teammates from bloodborne hazards.

2.0 OSHA requires Team Fishel to perform an exposure determination concerning which Teammates may incur occupational exposure to blood or other potentially infectious materials as a part of their job duties.

3.0 Only those Teammates trained and designated as responsible for rendering first aid or medical assistance as part of their job duties are covered by the protections of this standard.

4.0 Non-routine exposures at job sites could include Teammates who have any break in the skin causing blood to flow, amputations, compound fractures, or any injury that could cause exposure to other potentially infectious materials or body fluids.

## Rule 1103 . . . . . .Implementation Schedule and Methodology

OSHA also requires that this plan include a schedule and method of implementation for the various requirements of the standard. The following complies with this requirement.

1.0 Compliance methods

1.1 Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. All body fluids will be considered potentially infectious materials regardless of the perceived status of the source individual.

1.2 Hand washing facilities will be made available to Teammates who incur exposure to blood or other potentially infectious materials or bodily fluids.

- These facilities should be readily accessible after exposure.
- Soap and water should be available at field job sites.
- If there are no hand washing facilities available in the field, the exposed Teammate should be provided with antiseptic hand cleanser, clean cloths/paper towels or antiseptic wipes.
- If these are not available, the exposed Teammate should immediately go to the nearest hospital or health care center for assistance.

1.3 After removal of personal protective gloves, the Teammate must wash his/her hands and any other potentially contaminated skin area immediately.

- If a Teammate incurs exposure to his/her skin or mucous membranes, those areas shall be washed with soap and water immediately, or as soon as possible following contact with blood or other bodily fluids.

2.0 Work practices

2.1 Teammates who are not first aid trained should not provide hands-on first aid to a fellow Teammate who is bleeding, unless it is an emergency.

- If possible, the injured/cut Teammate should provide first aid to himself/herself using supplies from the first aid kit.
- These supplies can be given to the injured Teammate by another Teammate.
- If another Teammate knows first aid, he/she can talk the injured Teammate through the process.

2.2 If an emergency exists, all procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of blood droplets or other potentially infectious materials or bodily fluids. Methods that will be employed to accomplish this include the following.

- Absorbent powder will be used to absorb blood droplets.
- The powder will be scraped into a scoop bag.
- The scoop bag will be deposited into a red biohazard bag.
- The area will be cleaned with an antiseptic wipe and dried with a paper towel.
- These items will be placed into the red biohazard bag.

All of the above mentioned items shall be found in the bloodborne pathogens protection pack and spill clean-up pack.

**Rule 1104 . . . . . .Personal Protective Equipment (PPE)**

1.0 All PPE will be provided at no cost to Teammates who have been designated as first aid responders as part of their job duties.

- PPE will be chosen based on the anticipated exposure to blood or other potentially infectious material or bodily fluids.
- The PPE will be considered appropriate only if it does not permit blood or other potentially infectious substances to pass through to or reach the Teammate's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time the PPE will be used.

2.0 Teammates shall not be required to be trained in first aid.

- If they volunteer for this training, PPE will be provided at no cost.
- Upon completion of this training, bloodborne pathogen packs and spill clean-up packs will be issued to these Teammates if they are to be designated as first aid responders as part of their job duties.

3.0 The Safety Coordinator shall issue these kits. These packs shall include the following protective equipment:

- protection gown
- mask
- gloves
- absorbent powder
- scraper
- red biohazard bag with ties
- crepe towels
- antiseptic wipes
- scoop bag

4.0 All garments that are penetrated by blood shall be removed immediately and disposed of in a red biohazard bag.

5.0 All PPE will be removed prior to leaving the work area and disposed of in a red biohazard bag.

- The biohazard bags will be brought to the shop and disposed of in the proper biohazard container.
- If the bag(s) cannot be returned to the shop, a local hospital should be contacted for assistance.

6.0 Gloves shall be worn when it is reasonably anticipated that Teammates will have hand contact with blood or other potentially infectious materials, loose skin, and mucous membranes.

- Gloves will be available from first aid and bloodborne pathogen pack and spill clean-up pack.

7.0 Gloves will be used in administering first aid when there is possible contact with blood or other potentially infectious materials.

8.0 Used disposable gloves must not be washed or decontaminated for reuse.

9.0 Gloves are to be replaced as soon as possible when they become contaminated, torn, punctured, or when their ability to function as a barrier is compromised.

**Rule 1105 . . . . . .Housekeeping**

1.0 Decontamination of areas, including soil, which have been contaminated with blood or other potentially infectious material or bodily fluids will be accomplished by using a mixture of bleach diluted at ratio of 1:1 with water and dried with paper towels where applicable.

2.0 All contaminated work surfaces should be decontaminated as soon as possible.

3.0 Specimens of blood or other potentially infectious materials must be put in leak proof bags for handling, storage, and transportation.

**Rule 1106 . . . . . Hepatitis A and B Vaccine**

1.0 Any Teammate who has been exposed to blood or other potentially infectious materials will be offered the Hepatitis A and B vaccine at no cost to him/her.

2.0 The vaccine will be offered to all Teammates who have rendered assistance in first aid involving the presence of blood or other potentially infectious material.

- The vaccine will be offered as soon as possible, but no later than 24 hours after the exposure incident.
- The vaccine will be offered regardless of whether the Teammate has actually incurred an exposure as defined in the OSHA standard.

3.0 All incidents of first aid will be reported immediately to the Safety Coordinator or the local office, in order to ensure that proper precautions concerning the incident are followed and that the vaccine is offered to unvaccinated Teammates within 24 hours if an exposure has occurred.

4.0 Teammates who decline the Hepatitis A and B vaccine must sign the attached waivers (see Appendices A and B).

- Teammates who initially decline the vaccine but later wish to have it will be provided the vaccine at no cost.

5.0 The Safety Coordinator will have the responsibility of ensuring that the vaccine is offered or the waiver is signed.

**Rule 1107 . . . . . Evaluation of Circumstances Surrounding Exposure Incidents**

1.0 When a Teammate incurs an exposure, it should be reported to the Safety Coordinator or the local office immediately.

- This allows for a timely medical evaluation and follow-up by a health care professional.
- This also allows for the timely testing for the source individual's blood for HIV and HBV.

2.0 All Teammates who incur an exposure will be offered a post-exposure evaluation and follow-up at a local hospital or health care facility under the supervision of a licensed physician or health care provider in accordance with OSHA requirements. This will include the following:

- Documentation of the route(s) of exposure, and the circumstances related to how the incident occurred.
- If known, the identification of the source individual or Teammate and, if possible, the HIV/HBV status of the source individual or Teammate.

- If consent is received, the blood of the source individual will be drawn by a medical professional and tested for HIV/HBV presence.
- Results of the testing of the source individual will be made available to the exposed Teammate.
- The exposed Teammate will be informed of the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The exposed Teammate will be offered the option of having his/her blood collected for a testing of his/her HIV/HBV serological status.
- The blood sample will be preserved for at least 90 days to allow the exposed Teammate to decide if the blood should be tested for HIV serological status.
- If the exposed Teammate decides prior to the 90-day period that testing will be conducted, the appropriate action can be taken and remaining blood sample discarded.
- Following the post-exposure evaluation, the health care professional will provide a written opinion to the Safety Director.
- The opinion will be limited to a statement that the exposed Teammate has been informed of the evaluation result and told of the need, if any, for further evaluation or treatment.
- All other findings by the health care professional are confidential.
- The Safety Director will provide a copy of the written opinion to the exposed Teammate within 15 days of receipt of the written opinion.
- The exposed Teammate will be offered post-exposure prophylaxis in accordance with the current recommendations of the U.S Public Health Services.
- The exposed Teammate will be given appropriate counseling concerning precautions to take during the period after the incident.
- The Teammate will also be given information on what potential illnesses to be alert for and instructed to report any related experiences to the appropriate health care professional.

## Rule 1108 . . . . . Training

1.0 Training in this written program will be conducted on all Teammates initial assignment and within 1 year of previous training.

2.0 Specific bloodborne pathogen training will be provided to those Teammates who have been trained in first aid.

- An approved training agency will conduct the bloodborne pathogens training at Team Fishel's expense.
- The Safety Coordinator will conduct training in this written program.

3.0 If a Teammate wishes to be trained in first aid or CPR, that training will be provided by the National Safety Council, The American Red Cross, an agency approved by the Red Cross, the local fire department or the Safety Coordinator.

- This training will be at Team Fishel expense.
- CPR and first aid certification should be renewed every two years.

4.0 Training for Teammates who are trained in first aid will include the following:

- The OSHA standard for bloodborne pathogens completed annually.
- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- How bloodborne pathogens are transmitted.

- Instances which might cause exposure to blood or other potentially infectious materials or bodily fluids at the worksite.
- Control methods that will be used at the worksite to control exposure to blood or other potentially infectious materials.
- PPE that will be made available and how it is to be used.
- Post exposure evaluation and follow-up.
- The hepatitis A and B vaccine program that is available to Teammates who are exposed to blood or other potentially infectious materials.

5.0 This program is located in the Safety Coordinator's office, the Safety Director's office and the Safety Manual.

**Rule 1109 . . . . . Recordkeeping**

1.0 All records required by OSHA standards and their confidentiality shall be maintained by the Safety Director for the duration of employment plus 30 years.

2.0 The employer shall ensure that all records required by this section shall be made available upon request of Teammates, Assistant Secretary & the Director for examination & copying. Medical records must have written consent of the Teammate before released. Team Fishel shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

3.0 These records include the following:

- The Teammate's name and Social Security number.
- The Teammate's hepatitis A and B vaccination status, including the dates of all the hepatitis A and B vaccinations and any medical records related to the Teammate's ability to receive vaccination.
- Results of examinations, medical testing, and post-exposure evaluation and follow-up procedures.
- Team Fishel's copy of the healthcare professional's written opinion.
- A copy of the information provided to the healthcare professional.

# APPENDIX A:
# HEPATITIS B VACCINE DECLINATION

I understand that, due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring the hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline the hepatitis B vaccination at this time. I understand that by declining this vaccine I continue to be at risk of acquiring hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____ _____

Name (Print) Date

_____

Signature

# APPENDIX B:
# HEPATITIS A VACCINE DECLINATION

I understand that, due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring the hepatitis A virus. I have been given the opportunity to be vaccinated with the hepatitis A vaccine, at no charge to myself. However, I decline the hepatitis A vaccination at this time. I understand that by declining this vaccine I continue to be at risk of acquiring hepatitis A, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I choose to be vaccinated with the hepatitis A vaccine, I can receive the vaccination series at no charge to me.

_____ _____

Name (Print) Date

_____

Signature

Rule 1201 . . . . . Policy
Rule 1202 . . . . . Major Program Objectives
Rule 1203 . . . . . Feasible Engineering Controls
Rule 1204 . . . . . Facial Hair
Rule 1205 . . . . . Eye Glasses
Rule 1206 . . . . . Respirator Cleaning and Storage
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Appendix A . . . . . Checklist for Proper Fit of Respirators
Appendix B . . . . . Respirator Fit Test
Appendix C . . . . . Teammate Training and Fit Test Record
Appendix D . . . . . Voluntary Use Certification

**Rule 1201 . . . . . Policy**

1.0 Team Fishel is committed to providing Teammates with the safest working environment possible.

2.0 A Respiratory Protection Program is established for all work areas that do contain or potentially contain hazardous atmospheres to which Teammates could be exposed.

3.0 This program will fully comply with all applicable codes, regulations and standards pertinent to respirator use at Team Fishel work locations.

**Rule 1202 . . . . . Major Program Objectives**

1.0 Ensure that all respirators used meet the NIOSH 42 CFR Part 84 requirements.

2.0 Ensure that all respirator users have a proper fitting respirator which they are comfortable wearing and that protects them from the anticipated hazards they will be exposed or potentially exposed to in their job duties.

3.0 Ensure that Teammate complaints on respirator use are promptly forwarded to the Safety Coordinator, and that he/she sees that such complaints are investigated and evaluated as soon as possible. All Teammates reporting signs or symptoms of inhalation hazards are to be promptly interviewed to determine the following:

- 3.1 When do they occur? (What season, time, days, frequency?)
- 3.2 Where do they occur? (What work location, and which Supervisor is in charge of area?)
- 3.3 How long do the symptoms last? (Do they clear up after leaving work? If so, how soon? Do they last overnight?)
- 3.4 Have the symptoms been triggered by any specific event, work task, or in a specific work area?
- 3.5 What is the source of the symptoms? (Any medical diagnosis or care rendered?)
- 3.6 Was a Worker's Compensation claim filed?
- 3.7 What characteristics of the Teammate may be a factor? (Does he/she smoke, have allergies, a pre-existing illness or disability, or is he/she taking any medication?)

4.0 Ensure that corrective actions are taken to promptly resolve all Teammate complaints in using respirators and for signs and symptoms.

5.0 Ensure that all Teammates required to use a respirator are first medically evaluated as to their ability to use the respirator required for their work.

6.0 Have all Teammates required to use a respirator undergo a fit testing procedure to determine which face piece or face pieces provide them with a proper fit.

7.0 Have all Teammates who are required to wear a respirator for their job complete the respirator training program before working in any hazardous atmosphere.

8.0 The Safety Coordinator will implement procedures to obtain feedback from Teammates, users and Supervisors on the effectiveness of the program. He/she will implement audit procedures and program reviews to further evaluate the program's effectiveness.

9.0 The Safety Coordinator shall strive to improve the program and to ensure that it meets all applicable regulatory obligations.

**Rule 1203 . . . . . Feasible Engineering Controls**

1.0 It is Team Fishel's policy to use feasible engineering controls where they will be effective in removing or controlling the hazard, or will be effective in reducing the level of hazard to lessen the severity of exposure to Teammates.

2.0 Where feasible engineering controls do not completely remove the hazard, respiratory protection will be used to provide Teammates with proper protection from the atmospheric hazards.

**Rule 1204 . . . . . Facial Hair**

1.0 All Teammates required to use a respirator must be clean shaven and remove any facial hair that could interfere with the face piece seal area or function of the face piece.

2.0 Any Teammate who has a documented medical condition that precludes his/her ability to be clean shaven on the job, must consult with his/her Supervisor and Safety Coordinator. That Teammate will be assigned to a job that does not require the use of a respirator.

**Rule 1205 . . . . . Eyeglasses**

1.0 The use of regular eyeglasses with any full face piece is prohibited.

2.0 Contact lenses are permitted and must be worn when fit tested.

3.0 Teammates who must wear eyeglasses and cannot wear contact lenses will be assigned to a job that does not require a respirator.

**Rule 1206 . . . . . Respirator Cleaning and Storage**

1.0 Respirators shall be cleaned and inspected daily by the Teammate using the respirator.

- 1.1 Respirator wipes are provided and must be used daily before storing the mask. Alcohol should not be used.
- 1.2 Wipes can be obtained from the Safety Coordinator.
- 1.3 Filters, cartridges and/or canisters should be removed.
- 1.4 Face pieces should be disassembled by removing speaking diaphragms, demand and pressure demand valve assemblies, hoses, or any components recommended by the manufacturer.
- 1.5 Defective parts should be discarded or repaired.
- 1.6 Warm, soapy water is recommended for cleaning respirators. The mask and straps should be cleaned with warm, soapy water on a weekly basis as needed.
- 1.7 A stiff bristle (not wire) brush may be used to remove dirt.
- 1.8 Components should be cleaned thoroughly in clean, warm running water.
- 1.9 The importance of thorough rinsing is important. Detergents or disinfectants that dry on face pieces may cause dermatitis.

1.10 Some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

1.11 Components should be hand-dried with a clean lint-free cloth, or air-dried.

1.12 The face piece should be reassembled, and the filters, cartridges and canisters replaced as necessary.

1.13 The respirator should be tested to ensure that all components work properly.

2.0 Respirators shall be kept in a clean and sanitary manner.

2.1 Respirators will be assigned to a Teammate and placed in a plastic bag that is to be kept in a plastic container.

2.2 The Teammate's name should be on the container.

2.3 Toolbox storage is prohibited unless stored in the container.

**Rule 1207 . . . . . Worksite Hazard Evaluation**

1.0 The Safety Director and the Safety Coordinator will coordinate a hazard assessment for those work areas where personal protective equipment (PPE) will be needed.

2.0 The assessment procedures and results will be documented for each work location or task where respiratory protection may be needed.

3.0 All new work areas will be evaluated using similar procedures before Teammates begin work in these areas.

4.0 Properly conducted instrument readings of air contaminants for those work areas where inhalation hazards exist or potentially exist shall be taken in the breathing zone and other locations deemed appropriate.

4.1 The monitoring results will be retained.

4.2 The contaminants' chemical and physical properties and states will be documented.

5.0 Any signs or symptoms reported from Teammates that may affect the hazard assessment for a work area will be re-evaluated to see if any changes are necessary.

5.1 Teammates are to leave the area immediately to a designated wash area if it is determined that work environment has changed in any significant way.

5.2 The reevaluation is to be done promptly after the Safety Director or Safety Coordinator is made aware of the problem.

6.0 Team Fishel will use the more conservative values of the current ACGIH Threshold Limit Values (TLV's), NIOSH Recommended Exposure Limits (REL's), or the OSHA Permissible Exposure Limits (PEL's) as criteria for determining the level of hazard for respirator selection.

7.0 Team Fishel will select only respirators certified by NIOSH and used in accordance with the NIOSH approval label as stated in 42 CFR Part 84.

7.1 The NIOSH Respirator Selection Logic will be used as a guideline and, along with the applicable regulations, will be used to make the appropriate respirator selections for each Teammate required to use a respirator, and for the hazards that are anticipated in the work area.

8.0 The program administrator must address appropriate surveillance, and ensure Teammates leave the area to wash or change cartridges if they detect break-through or resistance.

## Rule 1208 . . . . . Medical Evaluation Procedures

1.0 The Safety Coordinator will be responsible for scheduling a medical evaluation for each Teammate who is required to wear a respirator.

- 1.1 The Safety Coordinator will arrange for the services of a physician or licensed health care practitioner (PLHCP) who will schedule the medical evaluation at a time that is convenient for the Teammate's work schedule.
- 1.2 The Teammate will be provided with a medical evaluation questionnaire (see Appendix C) at least one week prior to the evaluation.
- 1.3 The medical evaluation will be completed at no cost to the Teammate.

2.0 All medical evaluations will be kept confidential.

3.0 The written recommendation will be sent to the Safety Coordinator and to the Teammate.

4.0 Any limitations on respirator use related to a medical condition of the Teammate, or workplace conditions, or respiratory equipment shall be included in the recommendations.

5.0 Each Teammate, upon request, will be permitted to discuss the recommendations and results with the PLHCP.

6.0 The Safety Coordinator will give the PLHCP the:

- 6.1 Teammate's name;
- 6.2 Social Security number;
- 6.3 The type and weight of the respirator to be used;
- 6.4 Team Fishel's current respiratory protection program;
- 6.5 The physical work effort anticipated when using the respirator;
- 6.6 What protective clothing and equipment are expected to be worn;
- 6.7 The temperature ranges and humidity extremes that are expected during use; and
- 6.8 A copy of the OSHA Respiratory Protection Standard 29 CFR 1910.134.

This information will be retained by the PLHCP.

7.0 The PLHCP will provide to the Safety Coordinator necessary copies of documents to be placed into the Teammate's personal exposure and medical records file. These files shall be maintained at the local offices.

## Rule 1209 . . . . . Training Program

1.0 All Teammates who will use a respirator in the coming year will be required to complete the training program before their annual renewal date. After the training program, they must:

- 1.1 Pass an oral or written exam; and
- 1.2 Pass a practical exercise demonstrating the proper placement and removal of their respirator, including seal check.

2.0 All new Teammates will successfully complete the training program before using a respirator on the job.

3.0 Training program contents will include:

- 3.1 Team Fishel's standard operating procedures for using respirators in routine and emergency situations, including what to do if the equipment fails;

3.2 Placement and removal of respirators using the seal check procedures;

3.3 Cleaning, disinfecting and sanitary maintenance of respirators;

3.4 Storage and inspection of respirators;

3.5 The appropriate application, capabilities, and limitations of the respirators to be used, including the hazards of poor fitting face pieces; and

3.6 Recognition of medical signs and symptoms that may limit or prevent proper use of assigned equipment.

4.0 All respirator users will be trained in the overall contents of the OSHA Respiratory Protection Standard 29 CFR 1910.134 as part of the annual training.

5.0 When audiovisual presentations are used, a trainer shall be available at the conclusion to answer questions and to reinforce the main themes of the presentation.

6.0 Those Teammates who wish to use a respirator even though they are not needed for proper protection will be given information as called for in Appendix D of the OSHA respirator rule.

7.0 Retraining will be required of a Teammate before the annual refresher in the following cases:

7.1 If there are changes in the work area that impact respirator use and render the previous training obsolete;

7.2 If the Teammate no longer has the skill and understanding to follow and use Team Fishel's procedures that were part of the training completed earlier; or

7.3 In other situations that may arise, and a Supervisor or Foreman recommends that the Teammate be retrained.

## Rule 1210 . . . . . .Fit Testing Procedures

1.0 Any Teammate who uses or will use a respirator in the coming year will be fit tested.

1.1 This will be done each year on or before the anniversary of his/her annual refresher training date.

1.2 The annual fit testing will be scheduled along with the annual refresher training.

1.3 The Safety Coordinator will be responsible for scheduling Teammate fit testing and annual refresher training so that it does not go beyond a 12-month cycle.

2.0 Team Fishel will use a qualitative fit testing procedure using either Bitrex or saccharin (to be determined by the manufacturer's trainer) to fit test all Teammates who will use respirators.

3.0 The qualitative fit testing protocol will be conducted in a manner that follows the established OSHA protocols and manufacturer's instructions and recommendations.

4.0 The fit testing records using the forms in Appendix A, Appendix B, and Appendix C are to be retained for each Teammate by the Safety Coordinator.

5.0 After the fit testing, the Teammate should then take the annual refresher training as scheduled by the Safety Coordinator.

6.0 Any Teammate who is required to wear a respirator will be instructed on how to properly put on his/her face piece and check the face seal following the procedure for seal checks.

6.1 This instruction will occur before the Teammate begins the actual quantitative fit testing procedure.

7.0 A retest before the annual fit test may be necessary:

- 7.1 If the Teammate reports changes in his/her physical condition;
- 7.2 If the PLHCP recommends it;
- 7.3 If the designated face piece is causing a problem for the Teammate;
- 7.4 If the Teammate's Supervisor or Safety Coordinator recommends it; or
- 7.5 If the Teammate notifies his/her Supervisor or the Safety Coordinator that the respirator fit is not acceptable before the next annual fit test.

## Rule 1211 . . . . . Records Management

1.0 The Safety Coordinator is to retain the records for fit testing for each Teammate required to wear a respirator, including:

- 1.1 The oxygen and air quality certificates sent to him/her for purchased breathing oxygen and air respirators; and
- 1.2 Maintenance and servicing records on respirators.

2.0 The respirator training records shall be retained by the Safety Coordinator along with the other training records for each Teammate (see Appendix C).

- 2.1 The records will be made available to the Safety Director upon request.
- 2.2 Each Teammate will have access to his/her own training record upon request.

3.0 The Safety Coordinator shall maintain a current edition of the Team Fishel Respiratory Protection Program along with a current copy of the applicable regulatory requirements for respirator use.

4.0 The Safety Coordinator shall implement and retain audit records and program review results and reports on the program evaluation results including Teammate complaints, problems, and suggestions.

5.0 All Workers' Compensation reports and related data to injuries and illnesses caused by an inhalation hazard are to be retained by the Safety Director. The Safety Coordinator will have access to these records and will develop an appropriate analysis in cooperation with the Safety Director.

6.0 The Safety Coordinator shall retain and maintain the personal exposure and medical records file for each Teammate required to wear a respirator.

- 6.1 The records will be made available to the Safety Director upon request.
- 6.2 The Teammate or his/her authorized representative will have access to his/her file upon written request.
- 6.3 These records will be kept confidential.

7.0 The Teammate's medical record file will contain:

- 7.1 His/her name;
- 7.2 His/her Social Security number;
- 7.3 His/her job classification or current description of the Teammate's job duties;
- 7.4 A copy of all physicians' written opinions;
- 7.5 A copy of the state licensed health care professional's written opinion(s) on the Teammate's ability to use a respirator;

7.6 The results of medical exams, tests and vaccinations;

7.7 Any Teammate medical complaints related to worksite substances or exposures including the signs and symptoms, if described;

7.8 A copy of applicable OSHA standards and appendices; and

7.9 A copy of the information provided to the PLHCP who examined or evaluated the Teammate.

8.0 The Teammate's exposure record will contain:

8.1 His/her name;

8.2 His/her Social Security number;

8.3 His/her job classification or current description of the Teammate's job duties;

8.4 The Teammate's exposure levels to work site substances;

8.5 The description of monitoring and sampling procedures used to measure exposure level along with analytical method(s) used and evidence of the accuracy of the method(s);

8.6 Types of protective devices and equipment worn and the length of time they have been in use;

8.7 Environmental variables that could affect the measurement of Teammate exposure;

8.8 Chemical and physical properties of work site substances the Teammate was exposed to, or SDS for each substance; and

8.9 A copy of each applicable OSHA health standard that the Teammate was covered under.

## Rule 1212 . . . . . Immediately Dangerous to Life and Health (IDLH) Worksites

1.0 All potential immediately dangerous to life and health (IDLH) areas shall be properly monitored and characterized as to the hazards before any entry activity is to be allowed. (See section 9, Rule 904 for further information).

2.0 If the hazards that are immediately dangerous to life and health cannot be cleared from the workspace, Teammate entry is not permitted.

3.0 A worksite that is immediately dangerous to life and health shall be subcontracted to a company having the necessary training, qualifications and equipment for proper and safe entry.

4.0 The Safety Coordinator and Safety Director must be notified in advance of such entry.

## Rule 1213 . . . . . Confined Spaces

1.0 Entry into permit required confined spaces will be done in accordance with Team Fishel's Confined Space Program (see Section 9).

2.0 Entry into a confined space that is IDLH shall not be allowed for routine work as described in Team Fishel's Confined Space Program (see Section 9, Rule 904).

**Rule 1214 . . . . . Program Evaluation and Audit Procedures**

1.0 The Safety Coordinators and the Safety Director will develop, implement and maintain program evaluation and audit procedures that are compatible with Team Fishel procedures. The program evaluations will cover all aspects of the program.

2.0 The Safety Coordinator will review and analyze records that are retained by his/her office for trends and impact on the program's effectiveness. These records include:

- 2.1 The Teammate's fit testing records;
- 2.2 Air quality analyses; and
- 2.3 Maintenance records on respirators.
- 2.4 All reports made from this review will be sent to the Safety Director for review and comment.

3.0 The Safety Coordinator will review and analyze Teammate complaints, problems and suggestions and the resolution to these suggestions. A report of this review will be sent to the Safety Director for review and comment.

4.0 The Safety Coordinator will review and analyze all first reports of inhalation injuries and illnesses and hazard assessments of work sites and jobs to see where improvements can be made. A report of this review will be sent to the Safety Director for review and comment.

5.0 The Safety Coordinator will review and analyze trends in retraining and retesting in fit tests of Teammates before their annual review dates to determine how to improve the program effectiveness.

6.0 The Safety Coordinator will develop and implement methods to solicit feedback from Teammates required to wear respirators. The feedback will include:

- 6.1 How well the program is working;
- 6.2 Whether the program is fully effective; and
- 6.3 Where the program can be improved.

**Rule 1215 . . . . . Voluntary Use of Respirators**

1.0 Teammates may request the use of respirators for comfort, if it is determined that the respirator will not itself create a hazard.

2.0 When a Teammate voluntarily wears a respirator, the following must take place:

- 2.1 The Teammate is given a copy of Appendix D – Information for Teammates Using Respirators When Not Required.
- 2.2 If the Teammate is voluntarily wearing any respirator other than a filtering face piece (dusk mask), the Teammate must be medically cleared before he/she will be allowed to wear the respirator.
- 2.3 All Teammates who use respirators must be familiar with the proper cleaning, storage, and maintenance procedures so that its use does not present a health hazard to the user.

**Rule 1216 . . . . . Environmental**

1.0 Any Teammate who is going to be working on a site that has had hazardous material identified as being present on the site, must receive Hazardous Waste Operations training. The level of training should be consistent with the Teammate's function and responsibilities.

# APPENDIX A:
# CHECKLIST FOR PROPER FIT OF RESPIRATORS

Teammate Name: _____Teammate Number: _____

Tested By: _____

1. Proper training in respirator wear.
   - Position of head straps
   - Tension of head straps
   - Visual inspection and detection of defects
   - Methods of detecting leakage

2. Testing for proper fit.

   facial scars: _____ glasses: _____

3. Check for fit due to facial hair.

   clean shaven: _____ 1-2 day beard growth: _____

   2+ day beard growth: _____ mustache: _____

4. Check for uneven or excessive make-up.

5. Check for defects in the respirator.
   - Leakage from defective inhalation valves
   - Leakage from defective exhalation valves
   - Leakage from defective/poorly seated filter cartridges
   - Leakage due to faulty gaskets in cartridge well
   - Punctures in respirator material
   - Punctures in cartridges
   - Eyeglass temple bar seal leakage

6. Check efficiency of the filter(s) and that they are proper types for the work being performed.

7. Check breathing resistance as filter loads up creating more negative pressure on the respirator (change schedules for chemical cartridges).

8. Check respirator fit after noticeable weight loss or gain.

9. Check respirator fit if there are changes in dental configuration.

10. Check respirator fit after removal and putting the respirator back on after:
    - Meals
    - Coffee and restroom breaks
11. Check respirator fit due to effects of facial muscle changes due to:
    - Extraordinary smiling
    - Extraordinary frowning
12. Check respirator fit when working in extreme cold.
    - Affects elasticity of respirator material
    - Affects breathing rate
    - Affects facial contour
13. Check respirator fit when working in extreme heat.
    - Causes perspiration on face affecting face piece seal
    - Expands respirator material
14. Check for proper adjustment when doing strenuous work activities that could displace seal of respirator.
15. Check for proper fit and proper respirator at time of issuance.

# APPENDIX B: RESPIRATOR FIT TEST

1. Positive Pressure Seal Check

   - Close off the exhalation valve with the palm of your hand.
   - Exhale gently into the mask.
   - The face fit is satisfactory if some pressure can be built up inside the mask without any air leaking out between the mask and the face of the wearer.

2. Negative Pressure Seal Check

   - Close off the inlet openings of the cartridges with the palms of your hands.
   - Some masks may require that the filter holder be removed to seal off the intake valve.
   - Inhale gently so that a vacuum occurs within the face piece.
   - Hold your breath for 10 seconds.
   - If the vacuum remains and no inward leakage is detected, the respirator is properly fitted.

3. Qualitative Fitting Test

   - A Teammate wearing a respirator is exposed to a test agent (Bitrex solution or saccharin).
   - An air-purifying respirator must be equipped with an air-purifying cartridge that effectively removes the test agent from the inhaled air.
   - If the respirator wearer is unable to detect penetration of the test agent into the respirator, the respirator has achieved a satisfactory fit.
   - **This test must be completed by a representative of the respirator manufacturer.**

4. Quantitative Fitting Test

   - All Teammates using a respirator other than a filtering face piece will be quantitatively fit tested.
   - **This test must be completed by a representative of the respirator manufacturer.**

# APPENDIX C:
# TEAMMATE TRAINING AND FIT TEST RECORD

Teammate Name: _____Teammate Number: _____

Job Number & Location: _____

Respirator Provided: _____

Manufacturer: _____

NIOSH Approval Number: _____ Model Number: _____

1. Reviewed and provided Teammate copy of checklist for proper fit of respirators in the workplace.

   Appendix A of Team Fishel's respiratory protection program. Yes: _____ No: _____

Comments: _____
_____
_____
_____
_____

2. Fit Testing:

Quantitative: Pass: _____ Fail: _____ Fit Factor: _____

Manufacturer representative conducting test: _____

Comments: _____
_____
_____
_____
_____

Qualitative: Pass: _____ Fail: _____ Bitrex: _____ Saccharin: _____

Sensitivity taste threshold: 10____ 20____ 30____

Comments: _____
_____
_____
_____
_____

3. Seal Checks:

Negative Pressure: Pass: _____ Fail: _____
Positive Pressure: Pass: _____ Fail: _____

I certify that Team Fishel has provided me the necessary training and information concerning the standard operating procedures of the Respiratory Protection Program. I have been provided training with written information on the proper use and maintenance of respirators and associated possible hazards of this job and the respiratory protection used at this job site.

I understand my responsibilities are to:

- Use the respiratory protection in accordance with instructions and training received;
- Guard against damage to the respirator;
- Report any trouble or malfunction of the respirator to the Supervisor and/or Safety Coordinator;
- Inspect the respirator before each use;
- Be responsible for keeping respirators in proper storage containers when not in use;
- Be responsible for the proper cleaning of the respirator; and
- Be responsible for reporting improper fit and/or change in condition that might require re-fitting.

Signed: _____Date: _____

Trained/Fit Tested By: _____ Date: _____

# APPENDIX D:
# VOLUNTARY USE CERTIFICATION

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 Teammates. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the Teammate. Sometimes, Teammates may wear respirators to avoid exposures to hazards, even if the amount of hazards substance does not exceed the limits set by OSHA standards. If Team Fishel 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. Please print, sign and date your name at the bottom of the page to agree that Team Fishel has provided the appropriate information related to voluntary use of a respirator.

You should do the following:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- 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.
- 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 against gases, vapors or very small solid particles of fumes or smoke.
- Keep track of your respirator so that you do not mistakenly use someone's else's respirator.

Name: _____ _____
(Print) (Sign)

_____
(Date)

Rule 1301 . . . . . User Responsibilities
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Rule 1331 . . . . . Miscellaneous Equipment

## Rule 1301 . . . . . User Responsibilities

1.0 Manuals

1.1 Team Fishel will keep and maintain copies of the operating and maintenance manuals as long the equipment is in the company's possession.

1.2 The operating manual will be provided with each rental, lease or purchase and stored in the required location on the equipment.

2.0 Inspection, Maintenance and Operation

2.1 Team Fishel will inspect and maintain equipment as required to ensure proper operation and safety including making sure all manufacturer warning labels are legible and in the correct locations.

2.2 The frequency of inspection and maintenance is determined by the manufacturer's recommendations and is compatible with operating conditions and severity of the operating environment.

2.3 Equipment that is not in proper operating condition will be immediately removed from service until repaired by a qualified mechanic.

2.4 Teammates are responsible for identifying and mitigating "Red Zones" of equipment and machinery. This must be documented and discussed during the JHA process.

- Red Zone is defined as any place identified where the potential for contact can be made from a piece of moving equipment or a region around a piece of equipment that is dangerous or forbidden.

3.0 Workplace inspection

3.1 Before and during use, the operator will check the area where the equipment will be used for possible hazards, including:

- Drop-offs or holes
- Bumps and floor obstructions
- Debris
- Grades, side slopes and ramps
- Overhead obstructions and power lines
- Inadequate surfaces or support to withstand all load forces imposed by the equipment
- Wind and weather conditions
- Other possible unsafe conditions

4.0 Training

4.1 Teammates must be trained on the specific piece of equipment they are using and such training should be documented by the Safety Coordinator. Training, unless otherwise specified by Team Fishel and/or OSHA, shall be in compliance with the manufacturer's suggested guidelines for safety and operations.

## Rule 1302 . . . . . Forklift Operations – General Rules

1.0 Team Fishel is committed to providing Teammates with the safest working environment possible.

2.0 Safe, efficient material handling is an essential part of using this equipment. Safety training for both new and experienced forklift operators will allow material handlers to develop and continue to practice safe operating methods.

3.0 Teammates who operate forklifts will receive certified training.

4.0 Only those Teammates who have successfully completed this training will be allowed to operate a forklift at Team Fishel.

5.0 Team Fishel is also committed to ensuring the safety of those Teammates who work around forklifts, and to maintain all forklifts in the safest condition possible.

## Rule 1303 . . . . . Forklift Operations – Startup

1.0 Before operating the forklift:

1.1 Perform a daily inspection to cover the following items:

- Overhead guard
- Hydraulic cylinders
- Mast assembly
- Lift chains and rollers
- Forks
- Tires
- Battery or batteries
- Hydraulic fluid
- Gauges
- Steering mechanism
- Brakes
- Lights
- Horns
- Attachments
- Fuel tanks, hoses, and gauges
- Engine oil, coolant, transmission fluid
- Windshield and windshield wipers
- Seat belts
- Safety doors and switches
- Hand guards
- Towing hooks
- Controls and control levers

1.2 Check for gas leaks at the hose connections if the forklift is an LP gas-powered vehicle.

1.3 Be in the operating position.

1.4 Disengage the clutch on manual transmission-equipped lifts, or apply brakes on power shift or automatic transmission-equipped lifts and electric lifts.

1.5 Place directional controls in neutral.

1.6 Start the engine or turn the switch of electric lifts to the ON position.

1.7 Check the functioning of the lift and tilt systems, load engaging means, steering, warning devices and brakes.

2.0 For cold weather starting of diesel or gasoline powered forklifts, follow the manufacturer's instructions.

**Rule 1304 . . . . . Forklift Operations – Picking up the Load**

1.0 Overhead protection on the forklift is not designed to protect the operator against the falling of a capacity load.

2.0 Do not use broken pallets.

3.0 Re-stack, band, tape or shrink-wrap any unstable load.

4.0 Use only manufacturer-approved attachments.

5.0 Handle only stable or safely arranged loads.

6.0 Completely engage the load with the forks.

6.1 Carefully tilt the load backward to stabilize the load.

6.2 Caution should be used when tilting backward with high or segmented loads.

7.0 When forks are used:

7.1 The fork length should be at least two-thirds of the load length.

7.2 Lift from the broadest side of the load and set the forks at the greatest width the load will allow for maximum stability.

7.3 Level the top of the forks.

7.4 Never lift a load with only one fork.

8.0 Off-center loads

8.1 Use caution in handling off-center loads that can't be centered.

8.2 Strap the load to the mast with chain or nylon slings if the load could be unstable during travel.

8.3 Take curves and corners slowly when handling unbalanced loads.

8.4 Raise, lower and tilt smoothly.

**Rule 1305 . . . . . Forklift Operations – Rated Load Capacity**

1.0 Forklift capacity is marked on the capacity plate. Do not lift loads that are heavier than the rated capacity.

2.0 A load backrest extension or fork extensions will increase the size of the load that can be handled, but will not increase the maximum weight that can be handled.

3.0 Load backrest extensions should be used for high loads only if approved by manufacturer.

- 3.1 These can be used to provide overhead protection for the operator.
- 3.2 These can also be used to help prevent parts of the load from falling on other persons.

4.0 All platforms, ramps and decking should support the weight of the forklift and the load.

5.0 When loading heavy equipment:

- 5.1 Use wedges to get equipment raised enough off broken skids to get the forks under the load.
- 5.2 Use a spotter to help in placing heavy equipment on skids.
- 5.3 Controls must not be run from the floor position if the forklift isn't made for that type of operation.

**Rule 1306 . . . . . Forklift Operations – Persons Passing Under Forklift**

1.0 A forklift operator must not pass the forks or an attachment over anyone, nor may anyone pass under them. This applies to either a loaded or empty lift.

2.0 There is always danger of striking someone with a fork or attachment.

3.0 The only exception to this rule is when an unloaded forklift section is adequately blocked for repair work and the lift is secure with the wheels chocked.

**Rule 1307 . . . . . .Forklift Operations – Traveling General Rules**

1.0 Know and observe yard or job site traffic regulations.

2.0 The forklift must be under control at all times.

3.0 In areas with uneven surfaces, it may be necessary to travel slower.

4.0 If possible, avoid running over loose materials. This can cause back pain for the operators, loss of control of the lift, the load to spill, or the lift to tip over.

5.0 Report or clean-up oil slicks, especially on docks or dockboards. Don't drive through them.

6.0 Adequate overhead clearances must be maintained at all times. If operating outdoors, watch for power lines.

7.0 Report or correct dangerously leaning stacks.

8.0 The steering wheel must not be turned too fast in order to prevent loss of control and possible tipping. Never use wheel spinner knobs.

9.0 The operator is the only individual allowed on the forklift.

10.0 Stunt driving and horseplay are prohibited.

11.0 Safe distances must be maintained from all edges. Do not travel close to the edge of elevated ramps, platforms, docks, edges of flatbed trucks, etc.

12.0 Operators should not eat or drink while operating a forklift.

13.0 The operator position rules are as follows:

- 13.1 Do not leave the forklift unless manufacturer shut-down procedures are followed.
- 13.2 If the forklift is stopped on a slope, the wheels must be chocked.
- 13.3 Do not operate the lift if not in the proper operating position (e.g. do not operate controls from the floor if the lift is not designed for this type of operation).
- 13.4 Do not put hands, arms, legs or head outside the running lines (dimensions) of the lift or between mast uprights.

14.0 Ensure all safety devices (warning lights, alarms, horns, parking brakes) are operable during forklift operation.

**Rule 1308 . . . . . Forklift Operations – Traveling with a Load**

1.0 If the load is obstructing the operator's forward view, he/she should travel with the load trailing.

2.0 Always look in the direction of travel.

3.0 Drive slowly. Controls are harder to operate in reverse.

4.0 Traveling blind is a hazard to bystanders and operators.

5.0 Whichever side the operator turns to, there is a blind spot in the rear. The operator should check this area frequently.

6.0 Regardless of road grades, the load shall be tilted back where appropriate. During transit, the load shall be raised only as high as necessary for adequate road clearance.

7.0 Traveling with a raised load reduces stability of the forklift.

8.0 Tilting elevated loads forward is prohibited except when picking up or depositing an elevated load.

**Rule 1309 . . . . . Forklift Operations - Traveling on a Grade**

1.0 Travel slowly and do not angle or turn on a grade.

2.0 Loaded forklifts operated on an incline greater than 10% must be driven with the load upgrade.

3.0 Empty forklifts traveling on grades must be operated with the lift section downgrade.

**Rule 1310 . . . . . Forklift Operations – Traveling Near Vehicular or Pedestrian Traffic**

1.0 A forklift operator must be sure that pedestrians and drivers of other vehicles in the area are aware of his/her location and direction before driving close to or past them.

- 1.1 Congested areas or areas where pedestrian traffic is heavy should be avoided.
- 1.2 Do not pass the load or lifting apparatus over the heads of pedestrians, or allow them to pass under an elevated load.

1.3 The operator is responsible for watching the rear swing and should not expect pedestrians to warn him/her. Ask people to move out of aisles and off ramps or wait for them to clear the area.

1.4 Keep pedestrians back when stacking or un-stacking.

1.5 Do not approach pedestrians with a forklift.

2.0 Keep the forks or attachment low (just high enough to clear rough spots, doorsills, etc.), with or without a load.

3.0 A load held high is more likely to spill when traveling or turning. The forks may also strike pedestrians.

4.0 Do not raise, lower, or tilt the load when traveling. The load could easily fall on someone.

**Rule 1311. . . . . Forklift Operations – Setting the Load Down**

1.0 Keep spotters or pedestrians out of the fall zone (the area where a load could fall).

2.0 Never place a load in an aisle or where it could block a stairway, door, fire equipment, or a fire aisle.

3.0 Be cautious to avoid hitting heaters, electric cables, power lines, pipes, sprinkler heads, or other overhead objects with an elevated load.

4.0 Do not tilt the load forward until it is placed on the floor or on top of the stack.

5.0 Make sure the load is stable when backing out.

**Rule 1312 . . . . . Forklift Operations – Loading and Unloading Delivery Trucks**

1.0 Delivery trucks must have the brakes set. Chocks must be used on both sides of the tires to prevent truck movement.

2.0 Use fixed jacks to prevent an uncoupled semi-trailer from upending when the forklift enters it.

3.0 Check delivery truck or semi-trailer floors for breaks, weaknesses, or slippery spots before driving in. A weak floor may collapse under the weight of a forklift.

4.0 Approved dock boards or bridge plates must be used to provide a smooth, gapless riding surface between the truck and the dock.

4.1 Portable and powered dockboards shall be marked conspicuously with their carrying capacity. The carrying capacity shall not be exceeded.

4.2 Handholds or other effective devices shall be provided on portable dock boards to permit safe handling.

4.3 All dock boards shall have a high friction surface designed to reduce the possibility of slipping.

4.4 All dock boards shall be designed and maintained so that one end will have a substantial contact with the dock and the other end with the delivery vehicle to prevent the dock board from rocking or sliding.

## Rule 1313 . . . . . Forklift Operations – Leaving the Forklift

1.0 If the operator leaves the controls, the forks must be fully lowered and the forklift must be in neutral with the brakes set.

1.1 If parked on a grade, wheel chocks must be used.

2.0 The forklift must be parked only in approved locations. No lift may be parked blocking an aisle or exit.

## Rule 1314 . . . . . Forklift Operations - Refueling and Recharging

1.0 General practices

1.1 Before refueling or recharging, the forklift should be unloaded with the forks lowered to the floor and the parking brake set.

1.2 The engine must always be shut off when refueling.

2.0 Gasoline and diesel forklifts

2.1 Follow safe methods when checking the level of fuel in the fuel tank.

2.2 Follow the requirements for proper storage and handling of fuels. When fueling in the field only approved, labeled safety cans must be used.

2.3 Gasoline or diesel forklifts may not be restarted after refueling until all spilled fuel has evaporated or been wiped up and the fuel cap has been put back on.

3.0 LPG forklifts

3.1 LPG tanks should not be refueled or stored near sources of heat.

3.2 Check the tank to ensure that there are no sharp dents or gouges that could weaken the tank.

3.3 Do not throw, drag, drop or roll LPG containers.

3.4 Check the fuel lines for rubbing or exposure to manifold heat.

3.5 Check for damage to the liquid level gauge.

3.6 Inspect the quick-disconnect coupling for damage, deterioration, and for damaged or missing flexible seals.

3.7 Make sure that threads are in good condition.

3.8 Check the valves and fittings for damage.

3.9 Ensure that the relief valve points in the direction specified by the manufacturer.

3.10 Ensure that hand wheels, relief valves, and valve caps are in place.

3.11 Make sure that the locating pin is intact and that it properly engages the tank.

3.12 Do not jam the valve in the open position. When opening the valve, open fully, then turn towards a closed position a quarter to a half turn. This prevents jamming and enables quick shut-off in an emergency.

3.13 Wear gloves when changing LPG tanks. Escaping gas is painfully cold to the skin.

3.14 After installing a new cylinder, check the fittings for leaks with a soap solution. Never check with an open flame or with a bare hand.

3.15 If the LPG tank is kept on the forklift overnight or longer, the service valve should be closed.

4.0 Electric forklifts

- 4.1 Both a mechanical lifting aid and a battery lifting sling are required for battery handling.
- 4.2 The battery charging area must have a working eyewash station.
- 4.3 Battery charging must be limited to designated areas.
- 4.4 Ventilation must be adequate to disperse hydrogen produced by batteries during charging.
- 4.5 Open flames may not be used to check levels of electrolyte in batteries.
- 4.6 Always add battery acid to water, except when adding water to replace water lost during charging.
- 4.7 Bulk electrolyte must be handled by use of a carboy tilter or siphon. Sucking must never start the siphon.
- 4.8 No smoking is permitted in the charging area. The charging area must be posted with "No Smoking" signs.
- 4.9 Eliminate sparks, electric arcs and open flames in battery charging areas.
- 4.10 Keep metal tools and items away from the top of uncovered batteries to prevent arching.
- 4.11 The brake must be set when charging an electric forklift.
- 4.12 Vent caps must be inspected to ensure that they are not plugged. They must be placed into position before the battery is charged to avoid electrolyte spray.
- 4.13 The battery cover or compartment cover must be left open during charging to dissipate heat.
- 4.14 Only pull the battery connector in an emergency, or when recharging.
- 4.15 Wear impervious gauntlet gloves and eye or face protection when filling battery cells.
- 4.16 Properly position and secure batteries re-installed in forklifts.
- 4.17 Never use undersized batteries. They can shift and reduce the load capacity of the forklift where the battery is part of the counterweight.

**Rule 1315 . . . . . Forklift Operations - Restricted Uses of Forklifts**

1.0 Forklifts are not designed to lift Teammates.
2.0 Forks may not be used to push, poke or compress materials.
3.0 Forks may not be used to open jammed delivery truck doors.
4.0 Never transport leaking or otherwise defective containers.
5.0 Never use a forklift if you are not trained to use it.
6.0 Never work with an unsafe forklift.
7.0 Never handle an unsafe load.
8.0 Never work faster than safety allows.

## Rule 1316 . . . . . .Forklift Operations - Maintenance and Repair

1.0 A forklift found to have any defects must be immediately taken out of service until repairs are completed.

2.0 No modifications are permitted without the manufacturer's approval.

3.0 Repairs that may involve fire hazards (e.g. on fuel and electrical systems) must be performed in designated areas and never in areas where such work could create a fire hazard.

## Rule 1317 . . . . . .Forklift Operations - Operator Training and Evaluation

1.0 Each operator must be trained and evaluated as required by 29 CFR 1910.178 (1). The certification must include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) who did the training evaluation.

2.0 Operators must be trained on each type of forklift they will be operating.

3.0 Operator evaluation is required at least once every three years after completion of the initial training.

4.0 After initial training, an operator should be issued the Team Fishel Forklift Training Certification card.

5.0 Upon completion of the operator evaluation, the evaluation should be noted on the certification card.

6.0 Refresher training shall be provided to the operator when:

- 6.1 The operator has been observed operating the forklift in an unsafe manner.
- 6.2 The operator has been involved in an accident or near-miss incident.
- 6.3 The operator has received an evaluation that reveals that he/she is not operating the forklift in a safe manner.
- 6.4 The operator is assigned to drive a different type of forklift.
- 6.5 A condition in the workplace changes in a manner that could affect safe operation of the forklift.

## Rule 1318 . . . . . Aerial Lift Operations – Safe Operating Procedures

1.0 A daily inspection must be performed to any aerial lift prior to the start of use.

2.0 When other moving equipment and vehicles are present, take special precautions to comply with local ordinances or established safety standards.

- 2.1 Warnings such as flags, roped-off areas, flashing lights, signs and barricades shall be used.
- 2.2 Teammates should immediately report any problems or malfunctions to a Supervisor. Problems or malfunctions that affect the safety of operation must be repaired before continued use. Hazardous situations should be reported immediately.

3.0 Be careful to prevent rope, electrical cords, hoses, etc. from becoming entangled in the aerial platform.

4.0 Ensure the area surrounding the aerial platform is clear of personnel and equipment before lowering the platform.

5.0 Shut down the engine before fueling. Only fuel equipment in a well-ventilated area free of flame, sparks or other hazards that could cause a fire or explosion.

6.0 Charge batteries only in a well-ventilated area free of flame, sparks or other hazards that could cause a fire or explosion.

- 6.1 The battery charging area should be posted as a “NO SMOKING“ area.

7.0 Do not position the platform against another object to steady the platform.

8.0 Do not use lift equipment as a craning device.

9.0 Always limit travel speeds according to conditions of the ground surface, congestion, visibility, slope, location of personnel and other factors causing hazards of collision or injury to Teammates.

10.0 Always face the direction of travel.

11.0 Before and during driving while the platform is elevated, the operator shall:

- 11.1 Maintain a clear view of the path of travel.
- 11.2 Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps and other hazards to ensure safe elevated travel.
- 11.3 Maintain a safe distance from overhead obstacles and power lines.

12.0 Stunt driving and horseplay are prohibited.

13.0 Do not alter or disable interlocks or other safety devices.

14.0 Do not drive the lift equipment on grades, side slopes or ramps exceeding those for which the manufacturer rates the equipment.

15.0 If the platform/basket or supporting assembly becomes caught, snagged or otherwise prevented from normal motion by adjacent structures, all Teammates shall be removed from the platform/basket before attempts are made to free the platform/basket using the chassis controls.

16.0 Do not modify the aerial or scissors lift without prior written permission of the manufacturer.

- 16.1 According to 1910.67(b)(2), aerial lifts may be modified for uses other than those intended by the manufacturer, provided the certification has been certified in writing by the manufacturer or by an other equal entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2-1969 and this section, and to be at least as safe as the equipment was before the modification.

## Rule 1319 . . . . . Aerial Lift Operations – Training

1.0 Safety Coordinators will ensure that operators are trained in accordance with the manufacturer’s operating procedures. Operators must be trained on the lift that will be used on the job.

2.0 Training must include hands-on operation of the aerial equipment.

3.0 A record of the operator training must be maintained for at least three years.

4.0 Before being authorized to operate an aerial or scissors lift, the operator must:

- 4.1 Be instructed by a qualified person in the intended purpose and function of the controls.

4.2 Read and understand the manufacturer's operating instructions and our safety rules, or have been trained in the contents by a qualified person.

4.3 Understand by reading or by having a qualified person explain all decals, warnings and instructions displayed on the lift equipment.

## Rule 1320 . . . . . Aerial Lift Operations – General Safety

1.0 Aerial lifts include the following types of vehicle-mounted aerial devices used to elevate Teammates to job sites above ground or waterways:

- Articulating and extensible boom platforms
- Aerial ladders
- Scissors lifts
- Snooper trucks
- Any combination of the above

2.0 Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition. Protective safety devices should never be removed.

2.1 Lifts will be periodically by a Competent Designated Person within a 30 day time period. Limit switches shall we checked weekly. Any lift found to be unsafe shall be tagged out and reported to the shop Foremen immediately (See 1910.68(e)(2) for inspection criteria).

3.0 Boom and basket load limits specified by the manufacturer shall not be exceeded.

4.0 Only authorized Teammates shall operate an aerial lift.

5.0 Belting off to an adjacent pole, structure, or other equipment while working from an aerial lift is not permitted.

6.0 A body harness shall be worn and a lanyard attached to the manufacturer's anchor point when working from an aerial lift. Body belts are not permitted to be used as fall arrest systems.

7.0 Teammates shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices to elevate their work positions.

8.0 The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be used when the lift is on an incline.

9.0 An aerial lift truck will not be moved when the boom is elevated in a working position with Teammates in the basket, except for equipment that is specifically designed for this type of operation.

10.0 Articulating boom and extensible boom platforms, primarily designed as personnel carriers, will have both platform (upper) and lower controls.

10.1 Upper controls must be located in or beside the platform within easy reach of the operator.

10.2 Lower controls will be provided for overriding the upper controls.

10.3 Controls will be plainly marked as to their function.

10.4 Lower level controls will not be operated unless permission has been obtained from the Teammate in the lift, except in the case of an emergency.

11.0 Climbers will not be worn while performing work from an aerial lift.

12.0 The insulated portion of an aerial lift will not be altered in any manner that might reduce its insulating value.

13.0 When using aerial lifts, always be aware of the location of overhead power lines.

14.0 Before moving an aerial lift for travel, the boom must be inspected to see that it is properly cradled and the outriggers are in the stowed position.

**Rule 1321 . . . . . Aerial Lift Operations – Scissors Lifts**

1.0 Normal use of scissors lift operations will be at indoor job sites. Always be aware of overhead obstructions and make sure the travel path is free of debris and obstructions.

2.0 Personal fall arrest systems are not required when working on a scissors lift that has a guardrail system in place, unless local, regional, state or customer regulations require full body harnesses as restraints while using scissors lifts. These regulations will be followed.

3.0 Never use a guardrail system to hoist or haul equipment to the working level, or as an anchorage point for a personal fall arrest system.

4.0 When Teammates are being elevated upon or working on a scissors lift, the safety gate will be closed and latched.

5.0 Teammates should never stand on the guardrails or use ladders or planking to elevate their working height from a scissors lift.

**Rule 1322 . . . . . Skid-Steer Loaders (Bobcats)**

1.0 Equipment will only be operated by Teammates who are qualified and authorized to use it.

2.0 Before using the loader:

- 2.1 Check all fluids.
- 2.2 Check for broken, damaged or missing parts.
- 2.3 Check the brakes, visibility, controls, hydraulic systems, back-up alarms, safety guards, etc.
- 2.4 Check all safety features to make sure they are operating properly, including the safety bar.

3.0 If there are any problems with the loader, take it out of service and notify the shop Foreman or Supervisor.

4.0 Always wear Personal Protective Equipment (PPE). This includes:

- Hardhat
- Safety glasses
- Hearing protection
- Seat belts

5.0 Know your job site.

- 5.1 Look for holes, drop-offs, rough spots or any hidden obstacles that could cause loss of control of the loader.
- 5.2 Keep a safe distance from the edges of embankments, trenches, pits and other dangers.

5.3 If using the loader bucket, always move the load with the bucket low to the ground.

5.4 Transporting the load with the bucket raised up causes the loader to become unstable, which can cause a rollover. It also blocks the operator's view.

5.5 If working on a slope, never travel across the slope.

5.6 Always travel straight up or down a slope. When doing this, the heavy end of the loader should always be pointed uphill.

6.0 If the loader should begin to roll over:

6.1 Never try to jump clear of the equipment. Jumping from the loader causes many serious injuries and deaths by crushing.

6.2 You are safer inside the cab within the roll-over protective system (ROPS) cage.

6.3 Always wear your equipment seat belt.

7.0 Other safety requirements

7.1 Always shut the engine off when hooking up hydraulic lines or leaving the seat.

7.2 Shut the engine off when refueling, oiling, and working on the loader or when the loader is unattended.

7.3 Never use the bucket or attachment for a work platform or personnel carrier.

7.4 Use extreme caution when backing or moving outside the designated working area.

7.5 Do not run into the sides of trucks when loading them.

7.6 Do not engage in horseplay.

7.7 Be sure fellow Teammates are clear of your operation.

7.8 Always look around you before backing up or swinging the loader around.

7.9 Only open the throttle halfway, or as needed.

7.10 Lower the bucket or attachment when you are leaving the seat.

## Rule 1323 . . . . . Cable Reels and Trailers

1.0 Always inspect the cable reel trailer before use. This includes:

- tires
- brake lights, if equipped
- hitch and safety chains
- hydraulic systems, if equipped
- safety pins and clips

2.0 Loading and unloading reels

2.1 If the reel trailer is unhooked from the truck, the wheels must be chocked.

2.2 If the reel is unloaded from a trailer and stored on the ground, always block the reel to prevent it from moving.

3.0 Transporting reels

3.1 Secure the reel with safety pins and clips.

3.2 If safety clips and pins are not attached, the reel trailers must be taken out of service until properly equipped.

## Rule 1324 . . . . . Trailer Loading Safety

1.0 Complete a Daily Vehicle Inspection Report (DVIR) for trailers.

2.0 Before loading:

- 2.1 Be sure the trailer is compatible with the equipment being hauled by having adequate load capacity, deck size, weight distribution and braking systems.
- 2.2 Be sure that the towing truck can support the trailer tongue weight and has sufficient power to pull the trailer and load.
- 2.3 Conduct a daily safety inspection every time you transport a piece of equipment or material. Check for:
  - Air system leaks
  - Proper operation of movable decks, tails and ramps
  - Damage to the decks and/or ramps, including wood planking, metal parts and welds. Replace missing or damaged planks.
  - Any problems with the electric brakes.
- 2.4 Be sure you have adequate overhead clearance before loading.
- 2.5 Ensure that the loaded equipment will clear power lines, bridge decks and other obstructions.
- 2.6 Make sure the deck is free of rocks, dirt or other debris.

3.0 During loading:

- 3.1 Load and unload at a slow speed to allow corrections for guiding equipment on and off the trailer.
- 3.2 Before using a winch to load a piece of equipment or material, check for signs of cable wear or damage.
- 3.3 Never stand between equipment or behind a winch.
- 3.4 When loading equipment, lower the booms and attachments to keep the equipment center of gravity as low as possible.
- 3.5 When the equipment is loaded properly, engage the parking brake and lower buckets, booms and all attachments to the trailer deck.
- 3.6 Install locking devices on articulated equipment.
- 3.7 Never stand behind equipment being loaded.
- 3.8 When loading, trailers should be on level ground and the wheels should be chocked.

4.0 After loading:

- 4.1 Inspect and replace any damaged or worn chains, straps, slings or binders before using them to secure the equipment or material.
- 4.2 Make sure that chains or straps do not pinch or cut hoses, cylinders, rods or tires, or otherwise damage the loaded equipment.
- 4.3 Know the equipment's height and width measurements.
- 4.4 Verify there is sufficient truck and trailer clearance during full right or left turns.

4.5 Double-check the security of all tie-downs and use the required number and type of tie-downs for the load being hauled.

4.6 Use the appropriate manufacturer's anchor point to secure the tie-downs.

4.7 Make sure the trailer is in the transport position with the decks, axles, ramps and locks secured.

4.8 Examine the following:

- Pintle hitch
- Cross safety chains
- Safety pins and chain brackets for proper connection to the truck
- The light connections between the truck and trailer
- The electric brakes (if equipped) to ensure the brake cable is connected to the truck and proper operation
- The airlines for leaks
- The tires and tire pressure
- Hub oil
- Lights and turn signals of the trailer
- The area under the truck and trailer to remove obstructions

**Rule 1325 . . . . . Air Compressors**

1.0 Before transporting an air compressor check the following:

- The hitch and safety chain
- The tires and tire pressure
- The lights, if equipped
- The storage compartment for proper equipment. Make sure all metal tools are stored away from the battery.
- The storage compartment door should be closed and latched
- The license plate (if required)

2.0 If the air compressor is unhooked from the truck, chock the wheels.

3.0 Make sure all air hoses are in good shape and the safety clips are present.

4.0 At least two Teammates should unload the jackhammer from the storage compartment.

5.0 Make sure air control valves are present and in good working order.

6.0 Teammates should never use air from a compressor to clean material from their clothes or person.

7.0 Teammates should never horseplay with the air hose.

8.0 If the air compressor is not working properly, notify the shop Foreman or Supervisor and take it out of service.

## Rule 1326 . . . . . Jackhammers

1.0 Warm the jackhammer up before operating it in cold temperatures.

2.0 Keep the jackhammer drill bits sharp.

3.0 Keep the chuck bushings and hammers in good condition.

4.0 Replace the worn parts before they show excessive wear.

5.0 Make sure jackhammers are equipped with instant trigger controls, automatic trigger releases, and locking mechanisms to retain drill bits.

6.0 When using jackhammers, the following Personal Protective Equipment (PPE) must be used:

- Appropriate safety toed shoes along with metatarsal protection.
- Helmets
- Safety glasses
- Safety vests
- Hearing protection
- Appropriate traffic control devices
- Breathing protection will be worn when needed.

7.0 If the jackhammer is not working properly, notify the shop Foreman or Supervisor and take it out of service.

8.0 At least two Teammates should always load or unload a jackhammer.

9.0 Do not use rule tape or other non-rated tie-down.

## Rule 1327 . . . . . Cut-Off Saws

1.0 Operator protection

1.1 PPE helps shield the operator from the dangerous side effects of cut-off saw use. The operator must wear the following PPE while cutting:

- Safety glasses or goggles
- Hard hat
- Hearing protection
- Gloves
- Breathing protection when cutting dry concrete
- Approved safety boots
- Safety vests

2.0 Saw operation

2.1 Teammates will be trained in the proper procedure for starting the saw including, operating the choke, kill switch, guard adjustment and the dangers of gasoline.

2.2 Cutting produces sparks which could ignite a fire.

2.3 Spilled fuel should be wiped up thoroughly, and the saw checked for leaks.

2.4 When starting the saw, the Teammate should be at least 10 feet from where the saw was fueled.

2.5 Fueling should be performed in a well-ventilated location.

3.0 Cutter wheels and blades

3.1 Wheels and blades used with cut-off saws are available in two basic types, abrasive wheels and diamond blades.

3.2 Certain blades are designed for specific equipment. Only use blades intended for high-speed hand-held saws.

3.3 Never use a ripping blade or carbide-tipped blade on a cut-off saw.

3.4 Wet cutting allows water to cool the blade, thereby reducing the risk of blade failure and pieces of the blade being thrown off.

3.4.1 Wet cutting in concrete also reduces the potential of silica dust.

3.5 A key concern when using diamond blades is overheating.

3.5.1 When dry cutting, pulling it out of the cut every 30 to 60 seconds should cool the diamond blade.

4.0 Additional safety considerations

4.1 Be sure the proper fuel is used.

4.2 Be sure the blade is tight.

4.3 Be sure the air filter is clean following the manufacturer's recommendation.

4.4 Check the belt for proper tension.

4.5 Report all problems or needed repairs to the shop Foreman or Supervisor.

## Rule 1328 . . . . . Chainsaws

1.0 Ensure that the chainsaw bar and chain is properly adjusted.

2.0 Ensure that the kickback plate is adjusted and working properly.

3.0 Never use a chainsaw to cut higher than shoulder level.

4.0 Ensure the proper fuel mixture is being used.

5.0 When using a chainsaw, use the following PPE:

- Appropriate safety boot and boot covers
- Helmets
- Hearing protection
- Safety glasses
- Appropriate eye protection
- Work gloves
- Chainsaw chaps (when used at ground level)

6.0 If the chainsaw is not working properly, take it out of service and notify the shop Foreman or Supervisor. Do not use until returned to service by shop foreman.

## Rule 1329 . . . . . Tampers/Whackers

1.0 At least two Teammates should always load or unload a tamper/whacker.

2.0 When using a tamper/whacker, the following PPE must be used:

- Appropriate safety boots
- Hard hat
- Hearing protection
- Safety glasses
- Work gloves
- Safety vests

3.0 If the tamper/whacker is not operating properly, take it out of service and notify the shop Foreman or Supervisor.

4.0 Ensure proper fuel mixture is used.

5.0 Always transport this equipment in the upright position and ensure it is correctly tied down. Do not use rule tape or other fabric tape to secure.

## Rule 1330 . . . . . Brush Chippers

1.0 Brush chippers must be equipped with a locking device in the ignition system.

2.0 Access panels for maintenance and adjustment of the chipper blades and drive train must be in place and secured during the operation of the chipper.

3.0 Brush chippers not equipped with a mechanical feed system must be equipped with an in-feed hopper of sufficient length to prevent Teammates from contacting the blades of the chipper during operation.

4.0 Trailer chippers detached from trucks must be chocked or otherwise secured.

5.0 Teammates in the immediate area of an operating chipper feed table must wear eye, face and hearing protection.

6.0 Teammates should not stand directly in front of the in-feed hopper while feeding brush.

7.0 Teammates operating a chipper should not wear jewelry or loose fitting clothing.

## Rule 1331 . . . . . Miscellaneous Equipment

1.0 Operate equipment according to Department of Transportation (DOT) and/or the manufacturer's recommendations.

2.0 Ensure that equipment operators have demonstrated skills and/or have attended training on the safe operation of equipment and PPE requirements. (See Rule 1301.)

3.0 Equipment should be inspected daily prior to use. Defective equipment should be removed from service and not used until it has been repaired.

4.0 Before operating heavy equipment, inspect work areas and safeguard against identified hazards.

5.0 Ensure that operator's manual is accessible for all heavy equipment.

6.0 Before operating equipment with a seat, be sure it is equipped with approved ROPS and a seat belt. The seat belt will be worn at all times during transportation.

7.0 Before moving heavy equipment, be sure the area is clear of all Teammates, especially those within the swing radius or reach area of booms. Never allow riders on equipment.

8.0 Equipment operated during inclement weather or poor visibility must be equipped with proper lighting and appropriate safety devices.

9.0 Teammates must use three points of contact when climbing on and off equipment. Clear all ladders, handrails and steps of mud and snow.

10.0 Ensure that all equipment has recommended manufacturers' safety devices.

10.1 All cab glass shall be safety glass or equivalent and can have no cracks that would affect the drivers field of vision.

11.0 Parking brakes shall be set when equipment is parked. Wheel chocks shall be used at all times on trucks 1 Ton or larger when parked.

12.0 Battery charging and replacement shall be performed according to manufactures specifications.

Rule 1401 . . . . . .General Compliance Requirement and Definitions
Rule 1402. . . . . Personal Fall Arrest System Requirements
Rule 1403. . . . . Personal Fall Arrest System Uses
Rule 1404. . . . . .Body Belts
Rule 1405. . . . . .Purchase and Inspection
Rule 1406. . . . . Tie-Off Considerations
Rule 1407 . . . . . Fall Protection Plans
Rule 1408. . . . . Alternative Fall Protection Systems
Appendix A . . . . . Fall Hazard Analysis
Appendix B . . . . . Inspection Checklist

## Rule 1401 . . . . . .General Compliance Requirement and Definitions

1.0 General Compliance Requirement

Fall protection and emergency rescue shall be done in accordance with OSHA 1926 Subpart M and any ANSI standards incorporated by reference into that OSHA standard. OSHA has additional fall protection requirements for Scaffolds (Subpart L), Cranes (Subpart N), Excavations (Subpart P), Transmission Towers (Subpart V), Tunnels (Subpart S), and Ladders (Subpart X). Please refer to OSHA for any situations or circumstances dealing with Fall Protection not covered in Section 14 of this manual.

2.0 Definitions

**Anchorage** – A secure point of attachment for lifelines, lanyards, or deceleration devices.

**Body Belt (Safety Belt)** – A strap with means both for securing it around the waist and for attaching it to a lanyard, lifeline or deceleration device. A body belt may be used as a positioning device but may not be used as part of a personal fall arrest system.

**Body Harness** – Straps that may be secured around the Teammate in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest and shoulders. It also has a means to attach it to other parts of the personal fall arrest system. Harness must be adjusted correctly to distribute the operator`s weight in case of a fall. Training on proper sizing is a must for all Teammates working aloft. FR harnesses are required for all electrical Teammates and certain telecom Teammates where the utility requires it.

**Buck step** - This is an attachment to a harness where in the event of an emergency this will provide the Teammate relief from being suspended by straps alone. This prevents suspension trauma. This is a recommended addition to all harnesses provided to Teammates.

**Connector** – a device used to connect parts of the personal fall arrest system and position device together. It may be:

- An independent part of the system, such as a carabineer, or
- An integral part of the system, such as a buckle, or a D-ring sewn onto the body belt or body harness, or a snap-hook sewn to a lanyard.

**Controlled Access Zone** – A work area designated and clearly marked in which certain types of work may take place without the use of conventional fall protection.

**Deceleration Device** – Any mechanism, such as a rope grab, rip stitch lanyard, automatic self-retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest.

**Deceleration Distance** – The additional vertical distance a falling Teammate travels, excluding lifeline elongation and free fall distance, before stopping, from a point at which the deceleration device begins to operate.

- It is measured as the distance between the location of a Teammate's body belt or harness attachment point at the start of the fall arrest forces of the deceleration device during a fall, and the location of that attachment point after the Teammate comes to a full stop.

**Failure** – Load refusal, breakage or separation of the component parts.

- Load refusal is the point where the ultimate strength is exceeded.

**Fall Restraint System** – A rope and harness system that prevents a Teammate from falling any distance by limiting his or her approach to a leading edge or fall hazard. The rope should not be subjected to fall arrest forces or to extensive elongation and must be adjusted if multiple workstations of differing distance to the fall hazard will be accessed.

- A full body harness must be worn and the rope attached to the D-ring.
- An anchorage point must be capable of restraining twice the intended load.
- Rope selection should give consideration to the elimination of excessive elongation or stretching.

**Free Fall** – The act of falling before a personal fall arrest system begins to apply force to stop the fall.

**Free Fall Distance** – The distance between the start of a fall and the distance when the fall arrest system begins to apply forces to stop the fall.

**Guardrail System** – A barrier erected to keep Teammates from falling to lower levels.

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

**Lifeline** – A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

**Personal Fall Arrest System** (PFAS) – A system used to arrest a Teammate in a fall from a working level. It consists of:

- An anchorage
- Connectors
- A body harness
- A lanyard
- A deceleration device, lifeline or a suitable combination of these

**Rope Grab** – A deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest the Teammate's fall.

**Safety Monitoring System** – A safety system in which a Competent Person is responsible for recognizing and warning Teammates of fall hazards.

**Self-Retracting Lifeline/Lanyard** – A deceleration device containing a drum-wound line which can be slowly extracted from the drum under slight tension during normal Teammate movement, and which, after the start of the fall, automatically locks the drum and stops the fall.

**Snap hook** – A connector comprised of a hook-shaped member with a normally closed keeper, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snap hooks are generally one of two types:

- The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection, or:
- The non-locking type with a self-closing keeper that remains closed until pressed open for connection or disconnection.
- The use of non-locking snap hooks as part of a fall arrest system or with a positioning device is prohibited.

**Warning Line System** – A barrier erected on a roof to warn Teammates that they are approaching an unprotected roof side or edge and which designates an area in which work may take place without the use of a guardrail, body belt, or safety net system to protect Teammates in the area. A line may be erected no closer than 15 feet to the edge of the unprotected side.

## Rule 1402 . . . . . Personal Fall Arrest System Requirements

1.0 Personal fall arrest systems shall consist of an anchorage, connectors and a full body harness. They may also include:

- A lanyard (deceleration device)
- A lifeline
- Suitable combinations of lanyards and lifelines

2.0 Personal fall arrest systems and their use shall comply with the following provisions:

- Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.
- Connectors shall have a corrosion resistant finish.
- Connector edges and surfaces shall be smooth to prevent damage to interfacing parts of the system
- D-rings and snap hooks shall have a minimum tensile strength of 5,000 pounds.
- D-rings and snap hooks shall be proof-tested to a minimum load of 3,600 pounds without cracking, breaking or becoming permanently deformed.
- Snap hooks shall be a locking type snap hook.
- Snap hooks shall be hooked to an appropriate anchor point and shall not be hooked directly to webbing, rope, wire rope, or to another snap hook.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
- Lifelines shall be protected against being cut or otherwise damaged.
- Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum load of 3,000 pounds.
- Ripstitch lanyards shall be capable of sustaining a minimum load of 5,000 pounds applied to the device with the lanyard in the fully extended position.
- Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and harnesses shall be made from synthetic fibers. Harnesses and lanyards shall be FR when required.
- Anchorages used for attachment of fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms. It shall be capable of supporting at least 5,000 pounds per Teammate.

3.0 A Fall Hazard Analysis (Appendix A) shall be completed prior to beginning any work requiring a personal fall arrest system or other fall protection measures.

## Rule 1403 . . . . . Personal Fall Arrest System Uses

1.0 Personal fall arrest systems will be used whenever a Teammate is working at a height of six feet or greater.

- Personal fall arrest systems are not required when using stepladders or movable extension ladders.

2.0 Personal fall arrest systems shall be rigged so that a Teammate can neither free fall more than six feet nor contact any lower level.

3.0 The system must bring a Teammate to a complete stop and limit maximum deceleration distance that a Teammate travels to 3.5 feet.

4.0 The system must have sufficient strength to withstand twice the potential impact energy of a Teammate free falling a distance of six feet, or the free fall distance permitted by the safety system.

5.0 The system must limit the maximum arresting force on a Teammate to 1800 pounds.

6.0 Only locking type snap hooks are permitted with the fall arrest system.

7.0 The Teammate using the body harness must calculate their fully equipped weight (including tools) to assure it is within the capacity range of the harness. Check the weight rating on the label.

8.0 When wearing a full body harness, the D-ring should be positioned in the center of the back, near shoulder level.

9.0 The anchorage point for the lanyard should be at shoulder level or above the Teammate's head if at all possible. This limits the distance of the free fall. An exception to this would be the anchor point on a bucket truck.

10.0 Teammates shall never use personal fall arrest equipment for anything other than it's manufactured use.

11.0 When a Teammate falls and the fall is stopped by the personal fall arrest system, assistance must be provided as soon as possible since he/she may not be able to reach a work level independently. Reference buck step in definitions.

12.0 Personal fall arrest systems shall not be attached to equipment, guardrail systems, nearby structures when working from a lift or bucket truck, utility conduits, or any other anchorage points that may be unable to support a fall.

13.0 Wire rope should never be used where an electrical hazard may be possible.

## Rule 1404 . . . . . Body Belts

1.0 The use of body belts as a fall arrest system is prohibited.

2.0 Body belts may only be used for positioning device systems.

- A positioning device system is a body belt rigged to allow a Teammate to be supported on an elevated vertical surface such as a wall or utility pole, and work with both hands free while leaning.

3.0 A positioning device system shall be rigged so that a Teammate cannot free fall more than two feet.

4.0 Body belts, if used as positioning device systems, shall be at least 1 5/8" wide.

5.0 Body belts shall never be used to hoist materials or equipment.

6.0 Work positioning equipment (buck squeeze)

- 6.1 Approved Work positioning safety belt (ie buck squeeze) shall be worn by all linemen when climbing poles.
- 6.2 Prior to use inspect equipment for wear damage and other deterioration. Defective components must be removed from service.
- 6.3 Do not place the work positioning safety belt above a cross arm placed at the top of a pole.
- 6.4 Do not place the work positioning device closer than 18 inches from the top of any bare pole.
- 6.5 The safety strap (secondary safety) can be used provided the belt cannot slip more than 2" and is attached above a bolted pole attachment (cross arm brace ect.)
- 6.6 Permit only qualified employees to climb poles or structures.
- 6.7 All positioning equipment will be FR rated

**Rule 1405. . . . . .Purchase and Inspection**

1.0 The body harness and lanyard shall be inspected prior to each use.

- To inspect, a Teammate should hold the harness by the back D-ring and shake to allow the straps to fall into place.

2.0 If there are any signs of wear, the harness and/or lanyard shall be given to a Supervisor or the Safety Coordinator and taken out of service. Items to be considered during inspection are:

- Cuts
- Tears
- Abrasions
- Mold
- Undue stretching
- Alterations or additions which might affect its efficiency
- Deterioration damage
- Contact with fire
- Contact with acids or other corrosives
- Distorted snap hooks or faulty snap hook springs
- Loose or damaged mountings
- Non-functioning parts
- Wearing or internal deterioration in ropes
- Corrosion

3.0 If any part of the personal fall arrest system is taken out of service.

4.0 All body harnesses and lanyards shall be inspected routinely as part of a periodic inspection or safety JSI by the Safety Coordinator.

5.0 If a fall arrest occurs, the harness and lanyard must be taken out of service.

6.0 All accidents and serious incidents (near accidents) must be investigated, implementing changes to the fall protection plan as necessary.

## Rule 1406 . . . . . Tie-Off Considerations

1.0 One of the most important aspects of a personal fall arrest system is fully planning the system before putting it into use.

2.0 In most cases, there will be a need to devise an anchor point from existing structures.

3.0 Appropriate anchor points are items such as:

- Steel members or I-beams if an acceptable strap is available for the connection (Teammates should never use a lanyard with a snap hook clipped onto itself.);
- Large eyebolts made of an appropriate grade of steel (Teammate should not use if the eyebolt is not completely threaded to the shoulder of the bolt.);
- Bridge guardrails (may require use of a beamer clamp); and
- Masonry or wood members only if the attachment point is substantial and precautions have been taken to assure that bolts or other connectors will not pull out.
- Manufacturers anchor points on aerial lifts

4.0 Makeshift anchor points may not be used unless an appropriately qualified person can certify the strength. Manufactured anchors may be used if applied according to manufacturers' specifications.

5.0 Lanyards and lifelines may not be knotted to reduce their length. A knot in a rope lanyard or lifeline can reduce the lifeline or lanyard strength by 50% or more.

- The tie-off location should be raised to minimize free fall distance, or;
- The lanyard or lifeline should be replaced by one that has an appropriate connector to eliminate the need for a knot.

6.0 Tie-off of a rope lanyard or lifeline around an "H" or "I" beam or similar support can reduce its strength by as much as 70% due to the cutting action of the beam edges. Appropriate beam straps or clamps shall be used.

- Use should be made of a webbing lanyard or wire core lifeline intended for rough use around the beam, or;
- The lanyard or lifeline should be protected from the edge, or;
- The free fall distance should be greatly reduced.

7.0 A tie-off where the line passes over or around rough or sharp surfaces reduces strength drastically. Such a tie-off should be avoided or an alternative tie-off rigging should be used. Such alternatives may include:

- Use of a snap hook/D-ring connection
- A wire rope tie-off
- An effective padding of the rough/sharp surfaces
- An abrasion resistant strap around or over the problem surface

8.0 The tie-off attachment point to the lifeline or lanyard anchor should be located at or above the connection point of the fall arrest equipment to the harness.

8.1 Attaching to the working surface will often result in a free fall greater than six feet.

8.2 The arresting force that the fall arrest system must withstand also goes up with the greater distance of the free fall, possibly exceeding the strength of the system.

9.0 The location of the tie-off point should also consider the hazards of obstructions in the potential fall and swing path of the Teammate.

9.1 Swing falls can occur when the system is not anchored directly above the user.

9.2 Teammate should minimize swing falls by working directly below the anchorage point.

## Rule 1407 . . . . . Fall Protection Plans

1.0 Teammates using personal fall arrest systems must be trained in the safe use of the system.

2.0 The training should include:

- Application limits
- Proper hook-up, anchoring and tie-off techniques
- Proper Adjustment
- The proper D-rings or other attachment points to use on the harness for fall arrest
- Estimation of free fall distance, including determination of deceleration distance
- Estimation of total fall distance to prevent striking a lower level
- Methods of system use
- Inspection of the personal fall arrest system before each use
- Proper cleaning and storage of the system
- The limitations of the particular type of equipment being used
- The unique conditions at each worksite which may be important in determining the type of system to use
- Proper climbing techniques
- Specific lifelines or lanyards which may be used must be FR when required
- Use of a Fall Hazard Analysis for pre-job safety planning (Appendix A)
- Rescue methods and procedures, including self-rescue

3.0 The Safety Coordinator or another agency shall provide this training.

4.0 Under no circumstances shall Teammates work in areas where they might be exposed to fall hazards, do work requiring fall protection devices, or use fall protection devices until they have successfully completed the appropriate training.

5.0 Training in the above components will occur both in the classroom and on the job site as appropriate.

5.1 Classroom training will cover this section of the safety manual, and will include a training video.

5.2 Job site instruction will include a demonstration of and practice in wearing fall protection equipment, any climbing techniques necessary to safe operations, rescue and self-rescue techniques, and any instruction necessary for a specific job site.

6.0 All fall protection training shall be documented using Team Fishel's Document of Training available on Team Fishel's intranet site.

7.0 Retraining is required when a Teammate cannot demonstrate the ability to recognize the hazards of falling and the procedures to be followed to minimize fall hazards, and following any incident or near-miss incident where a fall protection plan was in place.

7.1 Retraining will also occur when it is determined that Teammates already trained do not have the necessary understanding or skill, work place changes, or fall protection systems or equipment changes that render training.

8.0 The Safety Director must be notified any time an incident or near-miss incident occurs where a fall protection plan was in place. The incident must be investigated to determine if all safety measures were followed and/or to determine if the safety policy requires a change to ensure such an incident can be avoided in the future. The Safety Director must approve any changes to the fall protection section of the safety manual.

9.0 Teammates will be notified and re-trained, if necessary, in any changes to the fall protection section of the safety manual.

## Rule 1408 . . . . . Alternative Fall Protection Systems

1.0 Alternative systems outlined below may only be used with proper training, equipment, and approval of the Safety Coordinator. Training must be documented and a pre-job Fall Hazard Analysis (Appendix A) completed before each use of alternative measures.

2.0 Warning line systems

- 2.1 The warning line shall be erected on all sides of the roof.
- 2.2 Lines shall be erected not less than 15 feet from the edge of the roof.
- 2.3 Lines shall consist of rope, wire, or chains with 500 pounds of tensile strength.
- 2.4 Supporting stanchions capable of resisting 16 pounds of force shall support lines.
- 2.5 Lines shall be flagged with highly visible material at 6-foot intervals.
- 2.6 Lines shall be erected between 34 and 39 inches from roof surface.
- 2.7 Safety Coordinator must approve warning line systems.

3.0 Controlled Access Zones

- 3.1 These zones are used to control access to unprotected or leading roof edges.
- 3.2 Lines shall be erected the entire length of and parallel to the unprotected edge.
- 3.3 Control lines shall consist of rope, wire, tape, or equivalent material and supporting stanchions. Lines shall have a breaking strength of 200 pounds.
- 3.4 Lines shall be no less than six feet or more than 25 feet from the unprotected edge.
- 3.5 Control lines shall be connected on each end to a wall or guardrail system.
- 3.6 Lines shall be rigged between 39 inches and 45 inches from the surface.
- 3.7 Lines shall be flagged with highly visible material at six foot intervals.
- 3.8 Safety Coordinator must approve all controlled access zones.

4.0 Fall restraint systems

- 4.1 Teammates may need to perform tasks on roofs or unfinished structures with no sides or parapet walls. A fall restraint system will allow the Teammates to anchor to a structural member or component and work safely while being restrained from reaching the unprotected edge. This system is designed to prevent any fall from occurring.
  - 4.1.1 A Teammate shall wear a full-body harness and be attached to a restraint line by locking snap hook.
  - 4.1.2 Restraint lines shall be of sufficient strength to withstand at least 3,000 pounds or twice the intended load.
  - 4.1.3 Restraint lines shall be selected to ensure minimum elasticity and elongation.
  - 4.1.4 Restraint lines shall be secured to a structural member at a length that prevents Teammates from approaching an unprotected side or edge and is capable of withstanding a force of twice the intended load.
  - 4.1.5 Restraint lines shall be retied as necessary if a Teammate's task location changes, and therefore, his/her proximity to the unprotected edge changes.
  - 4.1.6 A Teammate may secure the line to the anchor in a manner that will allow him/her to work within inches of the unprotected edge.
  - 4.1.7 Tie-offs shall be monitored to ensure their security during work operations.

# APPENDIX A:
# FALL HAZARD ANALYSIS

This form has been prepared to aid in the prevention of injuries associated with falls and is consistent with the rules of this company and the regulations relative to Fall Protection found in OSHA 1926.
A Job Hazard Analysis will be held to discuss work procedures, job sequence, identification of hazards and type of fall protection in use. This form is project and location specific.

Project: _____ Division: _____

Location: _____ City _____

Job Task: _____

| | Name | Signature |
|---|---|---|
| **Competent Person:** | | |
| **Crane Operator:** | | |
| **Lift Supervisor:** | | |
| **Prepared by:** | | |
| **Approved by:** | | |
| **Job Supervisor:** | | |

**POTENTIAL FALL HAZARDS**

| | | |
|---|---|---|
| ❑ Elevated Work Platform<br>❑ Excavation<br>❑ Floor Opening/Skylight | ❑ Scaffolds<br>❑ Stairways<br>❑ Wall opening | ❑ Ladder<br>❑ Swing Fall<br>❑ Other (Identify) |

**FALL PROTECTION**

| | | |
|---|---|---|
| ❑ Personal Fall Arrest System<br>❑ Guardrail Systems<br>❑ Safety Net System<br>❑ Control Zone<br>(no more than 5 workers)<br>❑ Safety Monitoring System | ❑ Manlift w/ Harness<br>❑ Bucket Truck w/ Harness<br>❑ Fall Restraint<br>(per access point)<br>❑ Other (Identify) | Safety Monitor: _____<br>Safety Monitor: _____<br>Ground Man: _____<br>Ground Man: _____ |

**SAFETY FETTERS**

| | | |
|---|---|---|
| ❑ Rope grab system<br>❑ Full body harness<br>❑ Vertical lifeline | ❑ Positioning belt<br>❑ Safety net<br>❑ Horizontal lifeline | ❑ Retractable lifeline<br>❑ Lanyard |

**ANCHORS**

| | |
|---|---|
| ❑ Vertical lifeline<br>❑ Horizontal lifeline<br>❑ Engineered anchor | ❑ Manufactured anchor (Specify Type): _____<br>❑ Other (Specify Type): _____ |

Other Safety Factors

| | |
|---|---|
| ❑ Fall Protection Training<br>❑ First Aid/CPR Training<br>❑ Bucket/Pole Rescue Training | ❑ Emergency Plan and Phone numbers<br>❑ Overhead Protection for Workers Below<br>❑ Maximum Free Fall Distance: _____ |

# APPENDIX B:
# INSPECTION CHECKLIST

- ❑ Identification tags
- ❑ Horizontal lifeline tension is correct
- ❑ Integrity of stitching in shock absorber
- ❑ Integrity of stitching in harness/ belt/ lanyard
- ❑ Manufactures assembly/ disassembly instructions
- ❑ Locking capability of retractable lanyards assured
- ❑ Locking capability of carabiners assured
- ❑ Locking capability of snap hooks assured (locking type ONLY)
- ❑ No knots or spliced connection that will weaken lifeline
- ❑ Lifelines connected and used under supervision of Competent Person and protected from cuts or abrasions
- ❑ Rope (wear, fraying, damage, mildew)
- ❑ Lanyard (wear, fraying, damage, mildew)
- ❑ D-rings have adequate strength, are not cracked or deformed
- ❑ Guardrails are sound and of adequate strength
- ❑ Devices are used to connect to horizontal lifelines lock in both directions
- ❑ Anchorage points provide adequate strength and are capable of meeting regulated strength requirements
- ❑ Safety monitor is competent, can see all workers, is close enough to communicate, and has no other duties.
- ❑ Warning lines are adequately marked and are at appropriate distance from fall hazard
- ❑ Hole covers are secured, marked and capable of withstanding anticipated weight loads
- ❑ Other (identify):_____
- ❑ Other (identify):_____

Rule 1501 . . . . . .General Compliance Requirement and Definitions
Rule 1502. . . . . Personal Protective Equipment
Rule 1503. . . . . Anchorages, Aerial, and Fixed Climbing Devices
Rule 1504. . . . . Fall Protection Requirements for Elevated Work
Rule 1505. . . . . Pre-Climb and Rescue Procedures
Rule 1506. . . . . Radio Frequency Safety
Rule 1507. . . . . .Training and Qualifications
Rule 1508. . . . . .Recertification
Appendix A . . . . . Physical Examination Guidance For Tower Climbers
Appendix B . . . . . Tower Climbing: Required Signage and Postings
Appendix C . . . . . Potholing Practices

## Rule 1501 . . . . . .General Compliance Requirement and Definitions

This policy establishes standards and procedures to provide for the safety of telecommunications Teammates that climb, traverse, move, rest, and work on towers, poles or at elevated work sites. Team Fishel regards safety and health as the primary consideration in any job, and is committed to preventing job-related accidents and illnesses by establishing and adhering to a Tower Climbing and Elevated Work Policy. By establishing training, medical qualifications, physical fitness, equipment, conduct standards and consolidating the various industry and government standards on the subject, the program will be established and maintained at all levels.

1.0 General Requirements

1.1 In accordance with 29 CFR 1910.268, 29 CFR 1926 (reference OSHA 3877-06) it is required that all Teammates and subcontractors who perform tower or elevated work must be determined to be medically qualified to perform those jobs, must be trained and certified as “Qualified” to perform those jobs, have the appropriate equipment to do the job, work on structures that are safe and perform those jobs in accordance with this policy and the Code of Federal Regulations.

1.2 Communications towers should be designed to eliminate or minimize the need for climbing. Qualified subcontractors will be strongly considered in fulfilling Team Fishel’s requirements for communications tower climbing.

1.3 Tower climbers shall only climb towers certified by the manufacturer to meet the Telecommunications Industry Association/Electronic Industries Association (TIA/EIA) 222 for tower construction and 29 CFR 1910.66. Towers that do not meet these standards will be considered unsafe and no one shall be permitted to climb on the tower until they are retrofitted or replaced with towers that meet these standards. Service can be accomplished by other methods (i.e. aerial devices, etc.).

1.4 Emergency situations in which an imminent threat to human life exists due to the lack of telecommunications services may require expedient performance of tower or elevated work. Every effort must be made to perform a risk assessment of such work in accordance with all of Team Fishel’s safety policies. Any emergency work performed that does not comply with this policy or Code of Federal Regulations must be clearly documented and reported to the Safety Director and Safety Coordinator.

1.5 The ultimate responsibility for determining whether “to” or “not to” climb a tower or do elevated work lies with the climber/Teammate, as they are ultimately at risk.

2.0 Responsibilities

2.1 Team Fishel’s Safety Director is responsible for developing, implementing and inspecting Team Fishel’s Tower Climbing and Elevated Work programs. This includes; maintaining policies, coordinating and selecting the Tower Climbing and Fall Protection training courses utilized for training and certifying climbers, as well as inspections of the Program.

2.2 Team Fishel’s Management Team, including Managers and Safety Coordinators are responsible for the following:

2.2.1 Ensure that the established Tower Climbing and Elevated Work Policies are carried out in an effective manner.

2.2.2 Assure that Teammates receive the proper training required in the use, care, and inspection of fall protection equipment and ensure the proficiency requirements, which allow Teammates to perform climbing activities, are met.

2.2.3 Participate in the refinement and implementation of a Tower Climbing and Elevated Work Program.

2.2.4 Maintain an inventory of qualified climbers, perform an annual inspection of PPE, and report to the Safety Director.

2.2.5 Perform periodic inspections to ensure compliance with this policy.

2.2.6 Assist with any and all arrangements for training and the purchase of approved fall protection equipment.

2.3 Supervisors and Job Site Foreman are responsible for the following:

Crew leaders/Foreman and Supervisors shall assign duties to those teammates who by reason of experience or training are qualified to perform the operation and recognize the hazards involved.

2.3.1 Be aware of health issues with Teammates who climb and ensure climbers adhere to good safety practices.

2.3.2 Specify the fall protection system to be used before engaging in the work activity.

2.33 Ensure a Job Hazard Analysis (JHA) is completed and pertinent work procedures are clearly defined and well understood by the crew.

2.3.4 Evaluate the physical condition of the climbers before allowing them to climb. If a Teammate identifies a safety concern, the job Supervisor shall stop all work until the issue is resolved.

2.3.5 Be aware of changes in weather conditions, elevation changes, and events that may require review corrective actions of the fall protection system in use or the work procedure plan.

2.3.6 Require that all climbing and fall protection equipment be inspected prior to each use. Team Fishel and its Subcontractors will use only qualified climbers and shall follow all state, local, and federal laws for tower climbing and fall protection.

2.3.7 When defects and devices in tools or equipment are reported, the supervisor must see that such defects are corrected or that the defective equipment is removed from service.

2.4 Teammates have the responsibility to the following:

2.4.1 Adhere to fall protection rules and procedures identified in section 14. Identify unsafe and unhealthy conditions that exist or are anticipated at a job site.

2.4.2 Participate in the completion of the Job Hazard Analysis of the job task to obtain an understanding of the safety and health requirements and the work procedures of the job.

2.4.3 Inspecting their personal fall protection equipment prior to each use.

2.4.4 Make the job Supervisor aware of any physical conditions that may impact their ability to perform the work.

3.0 Job Site Signage and Postings

3.1 Proper signage is required at the point of any and all hazards present in the workplace. On all aerial job sites involving tower and most other forms of elevated work, proper signs must be posted identifying the potential hazards in the construction zone. The typical signs that are required may include a number of the following:

3.1.1 Caution: Helmets Required in this Area

3.1.2 Notice: Authorized Personnel Only

3.1.3 Warning: Fall Protection Required

3.1.4 Caution: Work Being Performed Above

3.1.5 Caution: Radio Frequency Hazard

3.2 Additional signage and postings may be necessary according to the work being performed and any other hazards that may be present.

4.0 Definitions

**Aerial device** - Any piece of equipment utilizing a bucket or platform to place the Teammate(s) at an elevated work position.

**Aerial splicing platform** - This consists of a platform, approximately 3ft x 4ft, used to perform aerial cable work. It is furnished with fiber or synthetic ropes for supporting the platform from the aerial strand, detachable guy ropes for anchoring it and a device for raising and lowering it with a hand line.

**A frame ladder** - Also known as a step ladder, this is a self-supporting hinged ladder that when opened allows the ladder to stand. Note, A frame ladder shall never be used in the closed position as a straight ladder.

**Barricade** - A physical obstruction such as tapes, cones or “A” frame type wood and /or metal structure intended to warn and limit access to a work area.

**Barrier** - A physical obstruction which is intended to prevent contact with energized lines or equipment or to prevent unauthorized access to the work area.

**Bond** -An electrical connection from one conductive element to another for the purpose of minimizing potential differences or providing suitable conductivity for fault current or for mitigation of leakage current and electrolytic action.

**Cable** - A conductor with insulation, or a stranded conductor with or without insulation and other coverings (single-conductor cable), or a combination of conductors insulated from one another (multiple-conductor cable).

**Cable sheath** - A protective covering applied to cables.

**Drop zone** - The area around a tower/structure in which items will likely land if dropped from overhead. This zone is defined as a minimum of 10 feet out from the structure base, under any cable or conductor being removed/installed/transferred or beneath an aerial lift.

**Energized** - Electrically connected to a source of potential difference or electrically charged so as to have a potential significantly different from that of the earth in the vicinity. The term “live” is sometimes used in the place of the term current-carrying where the intent is clear.

**Extendo sticks** - Di-electric hot stick used with a voltage tester to determine voltage/induction of line where work is being performed. Recommended voltage detector (Klein HVNCVT-1 Dual High Range Voltage Detector).

**Extension Ladder** - A non-self-supporting portable ladder adjustable in length, consisting of a bed or base section and at least one vertically adjustable extension or “fly” section, with a suitable means for locking the ladders together.

**Ground** - Reference point in an electrical circuit from which voltages are measured, a common return path for electric current, or a direct physical connection to the earth.

**Layup Stick-** A non electrical insulated fiberglass tool used by telecom line repair/installers to assist in placing, lifting and pulling cable where an aerial lift isn’t accessible.

**Nominal voltage** - The nominal voltage of a system or circuit is the value assigned to a system or circuit of a given voltage class for the purpose of convenient designation. The actual voltage may vary above or below this value.

**Personal Fall Arrest System** - Personal fall arrest system means a system used to arrest a Teammate in a fall from a walking-working surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these. Teammates working for a Utility requiring FR, All harnesses and lanyards shall meet FR standards required by Utility.

**Pole balcony or seat** - A balcony or seat used as a support for Teammate at pole-mounted equipment or terminal boxes. A typical device consists of a bolted assembly of steel details and a wooden platform. Steel braces run from the pole to the underside of the balcony. A guard rail (approximately 30" high) may be provided.

**Pole Climbers/Gaffs** - Devices that are used by Teammates working overhead for ascending, descending, and maintaining a work position on wood poles.

**Pole platform** - A platform intended for use by a Teammate in splicing and maintenance operations in an elevated position adjacent to a pole. It consists of a platform equipped at one end with a hinged chain binder for securing the platform to a pole. A brace from the pole to the underside of the platform is also provided.

**Qualified Observer-** A Teammate capable of identifying hazards and ensuring safe work practices are followed. This shall be documented in the JHA.

**Qualified Teammate** - Any Teammate who by reason of their training and experience has demonstrated their ability to safely perform their duties.

**Roll-out** - A movement process by which a snap hook or carabineer accidentally disengages from an anchorage or object to which it is coupled.

**Special use ladders** - These are specialized designs that are made for a particular task, hook ladders, manhole ladders, Trestle ladders, roof ladders, and mobile safety steps are all special use ladders.

**Straight Ladder** - A non-self-supporting single section fixed length ladder that is used for climbing up or down an elevation change.

**Telecommunication line truck/derrick** - A truck used to transport Teammates, tools, and material, and to serve as a traveling workshop for telecommunication installation and maintenance work. It is sometimes equipped with a boom and auxiliary equipment for setting poles, digging holes, and elevating material or Teammates.

**Telecommunication service** - The furnishing of a capability to signal or communicate at a distance by means such as telephone, broadband, fiber optic, telegraph, police and fire alarm, community antenna television, or similar system, using wire, conventional cable, coaxial cable, waveguides, microwave transmission, or other similar means.

**Transferring** - The act of moving from one distinct object to another (e.g., between an aerial device and a structure).

**Transitioning** - The act of moving from one location to another on equipment or a structure while going around or over an obstruction.

**Voltage of an effectively grounded circuit** - The voltage between any conductor and ground unless otherwise indicated.

**Voltage/induction of a circuit not effectively grounded** - The voltage between any two conductors. If one circuit is directly connected to and supplied from another circuit of higher voltage (as in the case of an autotransformer), both are considered as of the higher voltage, unless the circuit of lower voltage is effectively grounded, in which case its voltage is not determined by the circuit of higher voltage. Direct connection implies an electric connection as distinguished from connection merely through electromagnetic or electrostatic induction.

## Rule 1502. . . . . Personal Protective Equipment

1.0 General

This chapter identifies the application of Personal Protective Equipment (PPE) utilized by Teammates while climbing, resting, and performing work at elevated locations. The equipment described is utilized to help place the Teammate in a desirable working position and to reduce the probability of potential fall accident injuries.

1.1 Personal protective equipment is to be stored in a dry, dark, secure area and protected from cuts, abrasions, and chemicals when not in use.

1.2 Mandatory inspection of equipment before each use by the user will serve to minimize accidents resulting from deterioration of equipment. All fall protection equipment shall be periodically inspected by the Safety Coordinator, or other representative designated by the local management team, on an annual basis and a record of the inspection shall be maintained in the office or site files.

1.3 Manufacturer's instructions and recommendations shall be incorporated into inspection, replacement, and preventive maintenance programs. Defective equipment shall be immediately removed from service and tagged "Do Not Use" until repaired. If defective equipment is determined to be non-repairable, it shall be disposed of immediately.

2.0 Personal Fall Arrest System and Fall Arrest Equipment

For proper and safety Personal Fall Arrest System procedures, please see Team Fishel's Fall Protection policies in Section 14 of this manual.

3.0 Pole Climbers/Gaffs

Only trained and authorized Teammates shall be permitted to climb poles. For additional policies for safe and proper pole climbing, see Section 7 Electrical Safety, Rule 708 Utility Poles, 9.0 of this manual.

3.1 Pole climbers may not be used if the gaffs are less than 1-1/4 inches (32 mm) in length as measured on the underside of the gaff. The gaffs of pole climbers shall be covered with gaff protectors when not being used.

3.2 Pole climbers shall be inspected before each use and shall be inspected for the following conditions:

3.2.1 Fractured or cracked gaffs or leg irons.

3.2.2 Worn or damaged stirrup and leg irons.

3.2.3 Loose or dull gaffs.

3.2.4 Proper sharpening of gaffs.

3.2.5 Broken straps or buckles.

3.3 If any of these conditions exist, the defect shall be corrected before the pole climbers are used.

3.4 Pole climbers may not be worn when working on ladders (unless using the wood structure as access to a work position on a ladder) or when working from an aerial device. Pole climbers may be worn on ladders, in aerial devices, or when walking if used as part of an access system incidental to work activity. American Standards of Testing and Measurement (ASTM) F887-91a provides detailed information for care of pole climbers.

4.0 Safe Climb Devices

4.1 Safe climb devices, which usually consist of a fixed rail, tube, or tensioned cable with slider, shall be maintained to permit the Teammate using the system to climb without continually having to hold, push, or pull any part of the system, leaving both hands free for climbing. The connection between the slider and the attachment point on a full body harness shall not exceed 9 inches (230 mm). These systems shall be activated within 2 feet (610 mm) after a fall occurs, in order to limit the descending velocity of the Teammate to 7 ft/sec (2.1 m/sec) or less. These systems are typically mounted on the face of a fixed ladder or the structure.

4.2 The climber shall ensure that the structure, system, and PPE are inspected prior to use to ensure proper operation and good working order. If a climbing system is found to be defective, the climber will use an approved alternative climbing and fall arrest method or elect not to climb.

5.0 Rescue Equipment

5.1 Controlled descent devices are used to make emergency descents from aerial devices or elevated positions on structures. Controlled descent devices shall be sized to include the maximum elevated position obtainable from the bucket, platform, or elevated position. The rate of descent may be controlled by the Teammate (or rescuer) or by a friction type brake.

5.1.1 These devices shall be attached to the full body harness such that the Teammate (or rescuer) will have control of the descent and be able to attach and detach him or herself. Supervisors shall ensure that necessary components to affect the attachment between the descent device and the climber's full body harness are stored with the descent device.

5.1.2 Controlled descent devices shall be stored in a clean, dry, protected environment. They shall be cleaned and carefully inspected prior to and after each use.

5.1.3 Rope (handline/lifeline) rescue methods shall be taught through a qualified and approved sponsored tower climbing and fall protection course.

5.2 The rescue equipment shall be designed to work with the type of structure(s) or aerial devices that Teammates (or rescuer) may be required to use the equipment.

6.0 Personal Protective Equipment

6.1 Job Hazard Analysis (JHA) shall be completed and maintained current at each job site. Prior to the start of any work at the job site or work area, the JHA shall be reviewed to determine what PPE and safety equipment are necessary, and if there are any new hazards at the site. PPE shall be worn as required in the JHA as well as per Team Fishel's safety policies.

6.2 Tower climbers may consolidate the issues of safety and personal preference in selecting their choice of personal safety equipment best suited for the job.

6.3 Observers/visitors shall not enter the work area or drop zone unless authorized by the Supervisor and will be equipped with personal protective equipment dictated by the hazards present.

6.4 The following list specifies safety equipment that is either required or recommended to be used while on the job site and for climbing towers:

6.4.1 Head Protection - All personnel shall wear helmets or approved safety helmets at all times on the job site whether they are on the ground or climbing the tower. Anyone within the drop zone (radius) of a communications tower construction project must wear a hardhat and exercise caution.

6.4.2 Foot Protection - Safety toed, reinforced soled tower climbing boots or shoes are recommended for tower climbers. The specific climbing conditions such as tower structure and weather conditions will dictate to the climber what the best foot protection will be. Personal preference in selecting the most appropriate safety footwear shall prevail. Tennis and other soft soled shoes shall not be used for tower climbing.

6.4.3 Hand Protection - Cut level 4 Leather work gloves at a minimum are required when working unless conditions deem other requirements. (Example: electrical hazards)

6.4.4 Eye Protection - Safety goggles or safety glasses shall be used in all designated areas and while performing work. Must meet Ansi Z-87.

6.4.5 Ear Protection - Ear plugs shall be used whenever noise level exceeds 85 decibles

6.4.6 Clothing - Long sleeve shirts, pants, and clothing made of a material suitable for outdoor working conditions must be worn while climbing to protect Teammates from cuts and abrasion, weather conditions, and other structural hazards. Clothing shall not be too loose or ragged and should be free from snag hazards such as loops, belts, and vests. FR when required by the customer.

6.4.7 Communications Devices – two-way, hands free, voice actuated radio head sets should be worn by the tower climber and ground safety person to provide reliable communications during the work, negating the need for hand signals.

6.4.8 Radio Frequency (RF) Personal Monitor – Climbers shall be trained on the use of and will wear a calibrated RF level monitoring device when working around or on a tower which may have active transmitters or where the status of transmitters are unknown.

7.0 Personal Conduct

When tower climbing, always follow safe climbing practices and watch for any unsafe climbing practices by others at the job site. Unsafe climbing practices must be eliminated or corrected before accidents occur.

## Rule 1503 . . . . . Anchorages, Aerial, and Fixed Climbing Devices

1.0 Anchorage

1.1 Anchorages shall meet the minimum requirements of an engineered system for each Teammate attached. An engineered system shall be in compliance with the mandatory personal fall arrest systems in 29 CFR-1926 Subpart M, and must meet the basic criteria as outlined in Team Fishel's Fall Protection policies that shall be consulted in Section 14 of this manual.

1.2 Anchorage Requirements for all Tower Climbing Operations

1.2.1 Attachment around a lattice tower member supported by one bolt on each end may be permitted with the proper fall arrest equipment if multiple-bolted members are not available.

1.2.2 Preferred lattice anchorages are around multiple-bolted angle iron members or around and above joints where multiple members are connected.

1.2.3 An attachment around and above all steel tower joint is permitted with approved approved methods.

1.2.4 Attachment around multiple bolted tower members is permitted.

1.2.5 Attachment to slanted structure members should be avoided.

1.2.6 A wire rope or padded lanyard shall be used around structural members that have potential for fraying and limits movement of the lanyard at the connection point.

2.0 Aerial Devices

2.1 Only qualified operators shall be permitted to operate an aerial device.

2.2 Qualified Teammates shall be certified through training and experience to operate the specific aerial device employed. Required training will be formal training or specific training by the Area or from the company where the aerial device is obtained which will include emergency procedures.

2.3 Using aerial devices within the minimum approach distance, devices shall be insulated.

2.4 Aerial device boom and dielectric inspection shall be performed on an annual basis.

2.5 Bucket rescue training is required to work in elevated positions on an annual basis.

2.6 When buckets are boomed up and not in mobile operation (when back pulling or jigging), the truck needs to be barricaded to eliminate anyone from approaching.

2.7 All bucket trucks need to be placed on level ground and outriggers extended if equipped.

2.8 All manufacturer recommendations need to be followed while operating and working around aerial devices. Refer to the owner's manual before use.

2.9 Bucket and platform anchorages shall meet minimum engineered loads while limiting potential free falls to 6 feet (1.9 m) for a full body harness. Aerial device anchorages shall receive an annual inspection and a visual inspection prior to use. Boom straps are the preferred anchorage. Walking surfaces shall have an anti-skid surface.

3.0 Ladders

3.1 **Fixed ladders:** Communications tower ladder climbing devices shall be kept in good repair. Devices determined to be hazardous shall be immediately removed from service, reported to the Supervisor, and red-tagged as "Damaged. Do Not Climb!" Corrective measures shall be completed prior to the next climb.

3.2 **Portable ladders:** The use of portable ladders has become an inherent part of Team Fishel's daily work activities. It is important to understand the proper care, maintenance, inspection and use of this tool.

**Types of ladders:** There are 4 basic ladders that you may need to use at Team Fishel, they are straight ladders, extension ladders, "A" frame ladders and Special use ladders. See definitions in section 15 4.0.

**Parts of a ladder:**

**Rails** - The rails on a ladder are the vertical pieces to which the steps are attached. A stepladder has four rails. There are front left and right rails, as well as rear left and right rails. The front rails are usually more substantial than the rear rails to support the most weight. Straight Ladders have two rails and extension ladders have two per section.

**Rungs** - Also known as steps, or cleats, these are ladder cross pieces that are intended for use by a person in ascending or descending.

**Foot or base** - This is the bottom of the ladder rails that make contact with the ground and add stability to the ladder.

**Rung Locks** - the locking mechanism that keeps the fly section of an extension ladder in place.

**Halyard and pulley** - A rope and pulley system used to extend the fly section of an extension ladder.

**Spreaders** - locking device used to keep an A frame ladder locked in the open position.

**Cap** - This is the top of an A frame ladder that is used to set tools or small items on. This is never to be used as a step.

**Ladder Ratings:** Ladders are rated by their load capacity known as the ladder "type" these ratings are set by ANSI

| Type | Capacity | Rated Use |
|---|---|---|
| Type III | 200 pounds | Light duty - Household use |
| Type II | 225 pounds | Medium duty - Commercial rated |
| Type I | 250 pounds | Heavy Duty - Industrial use |
| Type IA | 300 pounds | Extra Heavy Duty - Industrial use |
| Type IAA | 375 pounds | Maximum durability - Heavy Industrial |

*Note: Team Fishel requires type IA or IAA ladders on their projects.*

**Ladder construction materials:**
Even though Ladders may be made of wood, Steel, aluminum, plastic or fiberglass. See note below

*Note: Team Fishel requires only fiberglass constructed ladders.*

**Ladder Inspection and Care:**
Ladders are to be inspected for any visible defects before each use. Check for cracks in the rails especially at the rail ends. Check for bent or broken parts. The manufacturers data labels must be clear and readable. Make sure the ladder is free of any grease or oils that could cause slips. Clean ladder of dirt and grime using a mild detergent or soap. Never subject a ladder to intense heat or open flame. Any discoloration or singeing the ladder should be taken out of service till it can be tested. If a ladder is found to be defective in any way, it must be tagged "out of service" until repairs are made or it is properly disposed of.

**Storage of ladders:**
When not in use the ladder must be stored to prevent damage. It is best to hang ladders when possible. Do not just prop against buildings or walls. Ladders must be chained or secured to a fixed object while being stored. While ladders are designed to be used in direct weather conditions, it is recommended not to store outside or in direct sunlight for long periods of time. Do not allow objects to fall on the ladder when in storage.

**Carrying a ladder:**
Ladders can be heavy and awkward to move, get a teammate to assist you in moving a ladder. Remember we have a 51 lbs weight policy, any weight over 51 lbs requires assistance from another Teammate. Never move a ladder any distance while it is in the vertical position. Ladders may be re-positioned while vertical but not carried any distance. When two teammates are carrying a ladder they should carry it at arm's length while both walking on the same side of the ladder. This is the preferred method for anything larger than an 8-foot ladder.

**Raising and Setting a ladder:**
Before raising or setting a ladder take a moment and plan your path. Make sure there are no overhead objects like tree limbs, wires or electrical hazards that may impede your movement or cause additional risk. Set the base of the ladder on the ground against the wall, using your legs, lift the ladder using the hand over hand method. Once the ladder is upright brace it against the wall with one hand as high up the ladder as you can reach. With your other hand slowly begin to pull the foot of the ladder away from the wall. Position the foot approximately ¼ of the working height of the ladder away from the wall. Example, A 12 foot ladder should be about 3 feet away from the wall at the foot. Never set a ladder in front of a doorway or block a travel path. When removing the ladder use these same steps in reverse. Push the bottom into the wall, secure the ladder against the wall then slowly walk backward lowering the ladder using the hand over hand method. Never use ladders on uneven or very soft ground. Make sure the ladder is completely stable before climbing.

**Proper climbing angle:**
The proper climbing angle for ladders is about 75 degrees. An easy way to determine proper angle is to stand on the bottom rung, reach out and grab a rung in front of you. Your elbows should be straight out not bent; your body should be straight up not leaning in either direction. This gives you a comfortable climbing angle. Adjust the foot of the ladder till you achieve the proper angle.

**Proper climbing of ladders:**
Stand on the ground face the ladder, with one hand and the opposite foot step onto the ladder and grab the rung. Climb with your body in an upright position, do not lean into the ladder. Always keep three points of contact. 2 hands and one foot while stepping and one hand and two feet while grabbing the next rung. Never carry objects up the ladder that prevent you from keeping the three points of contact. Tool belts can be used to assist in carrying objects up. A hand line can be attached to your work belt once you are in the working position. Lower the hand line to attach tools for raising. When descending the ladder follow the same three-point contact procedure. Never climb or descend a ladder facing away from the rungs. When possible have a teammate foot the ladder for you, this adds to the stability and safety. Only one person is to be on a ladder at any time.

**Ladder safety:**

- Always inspect your ladder before use.
- Always store your ladder properly.
- Team Fishel recommends Fiberglass Type IA or IAA ladders on all job sites.
- Make sure the ladder is clean and safe before use.
- Carry the ladder safely and get help when over 51 pounds.
- When setting ladders make sure the ground is level and not too soft to support.
- When using an “A” frame ladder ensure the spreaders are in a locked position.
- When raising ladders watch your overhead clearance.
- Never block a doorway or a travel path.
- Always set ladders at the proper climbing angle.
- Three points of contact when climbing the ladder.
- Never carry bulky objects while climbing.
- Only one teammate is to work off a ladder at a time.
- Do not attach wires, cables or ropes being installed or removed to ladders or persons on them.
- Have a teammate foot the ladder for additional safety.
- Never take chances, do it right the first time.
- Use barricades and caution tape to control the area when working in traveled areas.
- When using a ladder to access a roof, make sure the ladder extends 3 rungs over the roof.
- Never try to move or reposition a ladder while on it.
- Always wear your PPE when using ladders.

## Rule 1504 . . . . . Fall Protection Requirements for Elevated Work

1.0 General

This chapter defines the fall protection requirements for working at elevated levels (6 feet or higher) on communications towers and related structures. The design and type of structure determines the method of climbing, PPE to be used, and fall protection device required for climbing, transferring, resting, working, and rescuing.

2.0 Qualified Climber Classification

2.1 A Teammate may become certified as a “Qualified Climber” as defined in the Team Fishel Tower Climbing and Fall Protection Program, after successfully completing all training requirements and satisfying physical fitness requirements and has demonstrated proficiency in climbing.

2.2 All “Qualified Climbers” shall be trained in accordance with Rule 1507 (Training).

2.3 All “Qualified Climbers” shall have passed a physical examination to ensure they are physically fit for the stresses of tower climbing and rescue. Medical exam guidance is contained in Appendix A of this manual.

2.4 All “Qualified Climbers” will provide documentation of required tower climbing training and climbing experience to their Supervisor.

2.5 A “Qualified Climber’s” record will be reviewed annually for recertification in accordance with Rule 1508 (Recertification).

2.6 All employee’s of an approved and contracted Subcontractors shall be a “Qualified Climber” in accordance with this manual.

2.7 Team Fishel shall provide qualified climbers with OSHA required equipment, and PPE for the performance of their duties.

3.0 Common Requirements

3.1 Prior to any tower climbing work, a Job Hazard Analysis (JHA) must be completed for each job site. The JHA shall include a pre-climb tower checklist and inspection report to accurately determine the overall tower condition, electrical or RF hazards, and what PPE is required. This assessment shall be documented on the appropriate JHA form provided by Team Fishel.

3.2 Tower climbers shall not service radio antenna systems connected to live radio transmitter equipment per 29 CFR 1910.147 (Lock-out/Tag-out). All other transmitters should be deactivated per 1910.97 (Nonionizing Radiation) and 1910.268 (Telecommunications) to prevent injuries to tower climbers while climbing in the vicinity of other antenna systems.

3.3 During all climbing activities, at least two (2) qualified climbers shall be present on the job site.

3.4 Teammates shall be attached to an anchorage point at all times when working or resting at elevated locations (6 feet and above). Moving, relocating, transitioning, and transferring activities performed on the tower require 100% attachment to an anchorage point.

3.5 Tower climbers shall check for a safe “Climber Fall Zone” area on the tower when positioning themselves at the work position.

3.6 A personal RF monitor shall be worn when climbing structures that may have active transmitters in the area.

4.0 Climbing and Walking Surfaces

4.1 Climbing and walking surfaces on equipment, ladder rungs, etc., shall be furnished with nonskid surfaces where possible. Ladders with deteriorated nonskid surfaces shall be removed from service until repaired. The walking surfaces shall be kept free of clutter.

Climbing and walking on cross arms (crossed tower members and diagonal bracing) in lieu of a ladder is not recommended. Climbing pathways should be clear of any obstructions.

5.0 Working from an Aerial Device

5.1 Prior to operation of the bucket or platform, Teammates shall be attached to an engineered anchorage on the aerial device by a full body harness in conjunction with a shock absorbing or retractable lanyard. Snaphooks shall be of the selflocking type. Working or standing on any rail of an aerial device shall not be permitted (All work will be performed from the floor of the platform).

6.0 Transferring Between an Aerial Device and a Structure

6.1 Transfers between an aerial device and a structure are discouraged. When transfers between a single or multiple occupancy aerial device and an aerial ladder, cable cart, or other equipment are required, they shall be in accordance with the following procedure:

6.1.1 Buckets and platforms shall be positioned to remain stable during a transfer. The platform or bucket shall have a fixed-pin or a locking mechanism to provide stability during transfer.

6.1.2 The transfer shall be made from the aerial device by a door, step, or secured ladder designed solely for the purpose of assisting the Teammate over the rim of the bucket or platform. Portable ladders shall not extend beyond the rim of the bucket. Portable ladders shall be removed from the bucket after the Teammate returns to the bucket. Platform guardrail systems must meet the design requirements per 29 CFR 1910.27, (Fixed Ladders).

6.1.3 The aerial device shall be attended at all times when Teammates are transferring from or to the aerial device. The aerial device shall be considered attended as long as a qualified operator remains at the controls either in the bucket or at ground level. The climber and the operator shall remain in voice and/or visual contact at all times when a climber is aloft. While a climber is working aloft and not transitioning to another area, the operator may work on other jobs at the site provided the operator is available when needed at the controls.

6.1.4 A climber transitioning between an aerial device and a structure shall be attached to the structure with both feet on the floor of the bucket or platform prior to making the transfer. The Teammate shall not be connected to the aerial device while attaching to the structure. The unattached time shall be kept to a minimum.

6.1.5 There shall be a second qualified climber present at the location when a transition is performed.

7.0 Communications Structure Requirements

7.1 Inspections

7.1.1 The Supervisor shall ensure that all structures subject to climbing shall be formally inspected per EIA/TIA-222-F Annex E. This inspection will be completed by a Competent Person (i.e. Tower Technologist, Professional Engineer, Safety Engineer, licensed structural engineer, or an industry certified tower inspector). Structures inspections shall consist of a detailed structural analysis per EIA/TIA-222-F (for lattice towers and non-wood poles) and 29 CFR 1910.269 Appendix D (for wood poles). This will include an inspection of fall protection system on all types of structures to ensure compliance with 29 CFR 1926 SubPart M.

7.2 Towers

7.2.1 When provided, fixed ladders shall be used for ascending and descending communications structures, except where work assignments or conditions dictate otherwise. When safe climb devices are available and operational, they shall be used to ascend and descend a communications structure.

7.2.2 Transitioning to the work position shall be accomplished while maintaining 100% attachment using a full body harness and lanyard or lifeline in conjunction with an energy absorbing or self-retracting lanyard or lifeline.

7.2.3 In situations where a safe climb device is not available or not operational and climbing has been determined necessary, qualified climbers will be allowed to climb while maintaining 100% attachment to a suitable anchorage point.

7.2.4 One hundred percent attachment is not required while utilizing approved work platforms, having guardrails and kickboards in accordance with 29 CFR 1910.23 and 1910.24.

7.2.5 Portable Straight or Extension Ladders. Portable straight or extension ladders shall be placed at an angle that will not permit slippage (minimum standard is the 4:1 ratio) of the ladder base when climbing. Unsecured ladders shall be supported by a ground Teammate until the climber has secured (tied) the ladder and transferred to the structure. (Reference 29 CFR 1910. 25 (Portable Wood Ladders) and/or 29 CFR 1910.26 (Portable Metal Ladders).

7.3 Pole Structures

7.3.1 Prior to climbing a pole communication structure, if not equipped with a safe climb device, then a PFAS will be used. When climbing on step bolts, fixed ladders, or moving between work or rest positions, climbers shall maintain 100% attachment.

7.3.2 Poles or structures determined to be unsafe by tests or observation such as a red “X” pointing towards the ground, may not be climbed until made safe by guying, bracing, or other adequate means. Poles determined to be unsafe to climb shall, until they are made safe, be tagged in a conspicuous place to alert and warn all Teammates of the unsafe condition.



7.3.3 Wood pole structures are not authorized for use as radio communications structures and will not be climbed. Where pole structures are still in use, an aerial device will be used to perform all work on the antenna system.

7.3.4 Non-Wood Pole Structures. Concrete, fiberglass, and steel poles meeting the EIA/TIA-222-F are acceptable.

7.3.5 Roof Top and Miscellaneous Structures. Any telecommunications work performed by an Teammate positioned on a horizontal or vertical surface with an unprotected side or edge which is four (4) feet or more above a lower level, shall be protected from falling by use of guardrail systems, safety net systems, or personal fall arrest systems. Roof tops are considered elevated working surfaces and require the Teammate to be tied off to an anchorage point that will withstand 5,000 pounds per person or the maximum anticipated impact load times an OCF of at least 2.0 for one Teammate (Reference 29 CFR 1926 SubPart M). Skylights must be identified, guarded and discussed on the JHA.

## Rule 1505. . . . . Pre-Climb and Rescue Procedures

1.0 Job Hazard Analysis

1.1 An initial JHA will be completed on each structure. The approved JHA form shall be reviewed and updated by the work crew and signed by the Supervisor or authorized Foreman prior to each structure climbing job assignment. If a JHA does not exist, one shall be completed. Approval of the JHA, by the appropriate authority must be given prior to climbing a structure. Based on the level of residual risk, the immediate Supervisor may not have the authority to accept the risk for the operation. A vital step in the JHA will be rescue procedures and equipment to be used in the event of an incident. This procedure shall be documented on the JHA for that structure.

2.0 The rescue procedure shall provide prompt rescue of Teammates or a means of self rescue (e.g. providing controlled descent device, radio, etc.). A site safety briefing shall be held at the beginning of each day, job, or change in work procedure to review the potential hazards involved in the work to be performed and potential rescue methods available. These discussions will help to ensure the availability of proper rescue equipment and to facilitate quick rescue of the Teammate.

3.0 Rescue of fall victims shall be included in all training and job planning. Aerial devices, cranes, handlines (lifelines), or other devices capable of lifting the climber should be readily available.

3.1 Pole Top/Bucket rescue methods shall be taught through local area and or an approved sponsored fall protection courses. These shall be performed on an annual basis.

4.0 Manufacturer's recommendations and Team Fishel requirements shall be followed for the inspection, use, and maintenance of all PPE and safety equipment.

5.0 Only PPE certified by the manufacturer to meet all OSHA standards and regulations is authorized for use. No personal owned or home-built, or agency-built equipment will be used in place of OSHA compliant PPE.

6.0 Safety and Health Precautions: Teammates shall not be assigned to work in hazardous areas/activities except in pairs, and always with established communications. Tower climbing will only be performed by qualified climbers and in pairs.

7.0 Radio Station Deactivation's: 29 CFR 1910.97 (Nonionizing Radiation) and 29 CFR 1910.268 (Telecommunications). As per OSHA Regulations 29 CFR 1910.97 (Nonionizing Radiation), climbers shall not be permitted to work on antenna systems connected to live radio transmitters nor be exposed to hazardous levels of electromagnetic radiation (radio frequency energy). Maintenance procedures require notification and coordination with the affected radio system dispatchers. Coordination with dispatchers shall include an estimated time for radio system reactivation on the structure being serviced. As work may need to accomplished where nearby transmitters are active, a personal RF monitor should be worn to identify any hazardous levels of electromagnetic radiation.

8.0 Medical Services and First Aid: All Teammates whose work assignment in the field places them beyond reasonable access to a medical facility in terms of time and distance (15 minutes and/or 10 miles) must be adequately trained to render first aid. All climbers shall have a current certificate in first aid and CPR before accepting field assignments.

9.0 Medical Condition of the Climber: A climber that is ill and/or on medication which may inhibit actions or cause over stimulation, dizziness, drowsiness, etc., will not climb. Any observed adverse physical conditions of any team member should be reported to the onsite job Supervisor. Any climber that exhibits an adverse physical condition that prevents them from functioning as a climber, shall not function as a ground safety person. This adverse physical condition will prevent them from performing a rescue.

**Working within minimum approach distance of phases**

When work is determined to be working within minimum approach distance of overhead distribution lines, these policies below Shall be followed:

Before work begins, all Teammates must ensure that no Teammate approaches or takes any conductive object closer to any electrically energized overhead power lines and parts unless:

The Teammate is insulated or guarded from the energized parts (insulating gloves rated for the voltage involved shall be considered adequate insulation), or:

- The energized parts are insulated or guarded from the Teammate and any other conductive object at a different potential, or
- The power conductors and equipment are de-energized and grounded.
- If work exposes energized or moving parts that are normally protected, danger signs shall be displayed and barricades erected, as necessary, to warn other personnel in the area.
- Metal measuring tapes, metal measuring ropes, or tapes containing conductive strands may not be used when working near exposed energized parts.
- Where it is necessary to measure clearances from energized parts, only nonconductive devices shall be used.
- If deemed necessary rubber cover-up is needed, cover up shall be provided and installed by a qualified electrical lineworker or by the direction of the facility.

**Approach Distances To Exposed Energized Overhead Power Lines And Parts**

| Voltage range (phase to phase, RMS) | Approach distance (inches) |
|---|---|
| 300 V and less | (1) |
| Over 300V, not over 750V | 12 |
| Over 750V not over 2 kV | 18 |
| Over 2 kV, not over 15 kV | 24 |
| Over 15 kV, not over 37 kV | 36 |
| Over 37 kV, not over 87.5 kV | 42 |
| Over 87.5 kV, not over 121 kV | 48 |
| Over 121 kV, not over 140 kV | 54 |

**Handling suspension strand**

Qualified Observer shall be used when performing high risk tasks such as back pulling, tensioning strand or working in highly congested zones and must be able to communicate an All Stop (via safety whistle or radio) when any Teammates or equipment exceeds the minimum approach distance.

When handling cable suspension strands that are being installed on poles carrying exposed energized power conductors, Teammates shall wear insulating gloves and shall avoid body contact with the strand until after it has been tensioned, dead ended and permanently grounded.

The strand shall be restrained against upward/downward movement during installation. Things to consider: On joint-use poles, where there is an upward change in grade at the pole. On non-joint-use poles where the line crosses under energized power conductors. Dead-end poles except properly braced or guyed “Y” or “T” cable junction poles. Straight-line poles which are not storm guyed and where adjacent span lengths exceed 165 feet. Poles at which there is a downward change in grade and which are not guyed or braced corner poles or cable junction poles. Poles which support only telephone drop wire and poles which carry less than ten communication line wires. On joint-use poles one power line wire shall be considered as two communication wires.

Strand and cable being removed from service where voltage is present on wood poles and structures must be tested for presence of voltage, discussed and documented on the JHA before work begins.

When removing strand or cable, it shall be lowered by mechanical means such as hoist, digger derrick, winch line, etc until tension has been mitigated.

## Rule 1506 . . . . . Radio Frequency Safety

1.0 Team Fishel’s radio frequency (RF) safety program applies to all work performed at transmission sites that are active in terms of the potential to emit radio waves.

2.0 Each authorized Teammate shall receive EME (electromagnetic energy) awareness training that addresses all potential hazards associated with RF energy.

3.0 Only trained Teammates who understand the hazards associated with RF energy and the control measures are allowed unescorted access to the RF site.

4.0 Antenna sites must have physical access control. This is accomplished by fencing around the compound.

5.0 There shall be a site binder located at each rooftop RF site.

6.0 Safety signage plays an important role on any RF site. Signs must be clearly posted.

7.0 Assume all antennas are active. Maintain a safe working distance from each antenna. Do not stop in front of antennas.

## Rule 1507 . . . . . Training and Qualifications

1.0 General
The training and qualification of Teammates for tower climbing consists of a six-part program. The program is based on Teammates becoming certified to hold a “Qualified Climber” classification as defined in Rule 1504. Qualified climbers will be trained in accordance with this policy.

2.0 Policy
Climbers will be tested for knowledge and understanding of industry standard tower climbing requirements and competency with the Telecommunications Tower Climbing and Fall Protection Program Handbook (refer to OSHA best practices document 3877-06). Each Teammate will be provided a copy of the training materials.

3.0 Tower Climbing and Fall Protection Course

3.1 Climbers will be trained in the principles of; fall protection, use and care of a full body harness, safety climbing devices, tower climbing, transferring between equipment and structures, and rescue techniques. Climbers will also be trained in recognizing emergencies and how to select and use the appropriate rescue equipment and the proper technique for the situation.

3.2 Teammates shall be trained in the selection and use of PPE, fall protection and rescue equipment and their application limits, proper anchoring, tie-off techniques, proper rigging practices, determination of elongation and deceleration distance, methods of use, and inspection and storage of the system. Methods to identify energized powerlines, apparatus, other auxiliary equipment on the tower, and to be knowledgeable of the rules applicable to work on and around the structure near energized power lines. Teammates shall become familiar with manufacturer's recommendations, reduction in strength caused by certain tie-offs, and the maximum allowed free fall distance and total fall distance.

3.3 Due to the variety of required climbing techniques and associated hazards in tower work, it is essential that each respective climber be given sufficient training to master the required skills. The Teammate must possess the basic physical fitness required to perform the work. The Teammate shall demonstrate, to a trainer, proficiency in climbing functions and shall understand the hazards associated with each function.

3.4 Climbing instruction shall be presented, in such a way so the Teammate can recognize and avoid dangerous conditions while at the same time mastering the rigors of climbing, resting,and positioning for work on various structures.

3.5 Each piece of equipment used for climbing and work position attachment shall be explained and demonstrated. The Teammate shall become proficient in the use and care of the equipment to avoid abuse or use beyond its predetermined life. Teammates shall be made aware of all the aspects on the equipment and materials they are working with regarding the stresses and resultant effects on safety margins while climbing or working aloft.

3.6 Required training shall be by classroom and actual field demonstration of the classroom instruction. A qualified instructor will conduct all classroom, actual field demonstration, and testing for Team Fishel sponsored courses.

3.7 Team Fishel Sponsored Tower and Fall Protection Courses must be approved by the Safety Director and performed under the supervision of a Team Fishel qualified climber or authorized training facilitator.

4.0 Emergency Care Courses
Qualified climbers will have a current First Aid and CPR certificate. This certificate will be obtained prior to any Team Fishel sponsored Tower Climbing and Fall Protection training. Team Fishel will provide annual First Aid and CPR training to meet this qualification.

5.0 Medical Qualification
Prior to attending training, climbers will pass the medical standards examination as required by Team Fishel outlined. This examination describes the physical requirements needed to fulfill the Qualified Climber Classification. The completed examination will be retained in the Teammate official medical folder.

6.0 Job Hazard Analysis Process
The course will train Teammates to recognize unsafe climbing conditions and defective safety climbing/arrest equipment. Training will be provided on how to complete a JHA.

7.0 Documentation
Documentation shall consist of a certificate indicating that the individual has successfully completed the course of instruction and has the skills required to be proficient in the Tower Climbing and Fall Protection Program. Demonstrated proficiency shall be included in the documentation. Documentation shall be made when the Teammate successfully completes the training. The documentation shall be sent to Corporate and retained and maintained in the appropriate file. Training records will be maintained for the duration of the Teammate's employment.

## Rule 1508 . . . . . .Recertification

1.0 General
A "Qualified Climber" must maintain proficiency in climbing by demonstration and also must receive periodic training as new CPR/First-Aid, safety equipment, climbing procedures and techniques are continuously developed. The recertification involves an annual review, by the Assigned Manager, of the climber's record to determine when a climb was last performed, when the climber had last attended a Team Fishel approved tower climbing class, when the last medical qualification was completed, and when the last CPR/First-Aid class was attended.

2.0 Recertification Requirements
If the qualified climber has climbed at least twice in the past year, has a current medical qualification, and has been to a Team Fishel sponsored tower climbing course within the past three years, then the climber may be recertified by an entry in his or her climbing record, made by the Assigned Manager, stating the climber is re-certified.

3.0 Certification Deficiency Corrections

3.1 Those qualified climbers that have not climbed at least twice in the past year, and/or have not met the current medical qualification and/or have not attended Team Fishel sponsored training course in the past three (3) years and/or do not have a current CPR/First Aid certificate are not qualified to climb until the deficiencies are corrected.

3.1.1 If a climber is deficient in the medical qualification and meets all other requirements then he or she can be recertified after completing a medical examination by an approved medical provider and an entry is made in their climbing record.

3.1.2 If a climber is deficient in the number of climbs in the past year and/or has not been to an approved Team Fishel climbing course in the past three (3) years, then the climber must attend an approved climbing course to be recertified and an entry is made in their climbing record. (Refer to 2.0 climber recertification)

4.0 Documentation
All climbing training certificates and recertification statements concerning a climber shall be maintained for the duration of the Teammate's employment. The records must be submitted and maintained at Team Fishel's corporate office.

# APPENDIX A:
# PHYSICAL EXAMINATION GUIDANCE FOR TOWER CLIMBERS

**Physical Examination Guidance for Tower Climbers**
This applies to all Teammates whose duties require climbing and working at elevated locations on radio communication towers and structures. It is intended to prevent injuries due to inadequate physical fitness or work capacity, since unfit persons can quickly become a hazard to themselves and their fellow Teammates. Team Fishel's Telecommunications Tower Climbing and Fall Protection Policy affirms that a Teammate may be classified as a "Qualified Climber" after successfully completing an approved training course and satisfying physical fitness requirements. Health screening and physical examinations in accordance with this policy will be administered to all climbers as part of their certification program. Medical examinations, including an exercise electrocardiogram when required, will be performed by an approved physician coordinated through Team Fishel's Corporate Office.

**Telecommunications Technician Position Description:**
A Team Fishel telecommunications technician is responsible for installing and maintaining a variety of radio communications equipment. This includes VHF and UHF Base Stations, mobile radios, microwave radio equipment, radio towers, antenna systems, and telephone equipment. Periodically, the technician may have to climb radio towers or structures of varying heights ranging from 30 to 200 feet to perform maintenance on towers and antenna systems. Some radio station sites in the West typically are located at high elevations and experience extreme temperature variations. Access to remote radio communications sites may involve considerable travel by foot, aircraft, helicopter, all-terrain vehicle (ATV), or a snowmobile.

**Environmental Factors Which May Impact Performance of this Job Include:**

***Temperature extremes (particularly for outside work):*** Hot in summer; cold in winter, particularly in northern areas/districts and those with high elevations.

***Altitude:*** Work above 10,000 feet involves stresses of high elevation. Work between 6,000 and 10,000 feet elevation may involve high altitude stress if Teammates are not acclimated to it.

***Chemical Exposures:*** Teammates may be exposed to chemicals during cleaning of equipment and servicing batteries. They may also be exposed to solder and soldering fluxes. Outdoors they may be exposed to poison ivy, sumac, etc.

***Non-ionizing radiation:*** Teammates may be exposed to microwaves.

***Electrical:*** Teammates may be working around high-energy power lines.

***Dust:*** Possible exposure to windborne dust in outdoor environments.

***Noise:*** High noise levels from operation of equipment, including snowmobiles and ATV's.

***Travel in Isolated Areas:*** Medical care not readily available.

**Medical Examination Requirements:**
Medical examinations are required only when work conditions warrant them, and only after careful study and evaluation of those conditions. Medical standards, physical requirements, and medical evaluation programs will be established in accordance with industry standards and Federal, State and Local requirements. They will be documented through job analysis as directly related to the requirements of the positions and documented in accordance with regulatory requirements. Fitness for duty examinations is not to be used to replace the individual's personal, periodic medical examination. They are solely to focus on occupational fitness for duty. When a preexisting condition is detected in the course of an examination, the individual is to be referred to his/her private physician for further evaluation, treatment, and follow-up. The Teammate is responsible for these additional costs. An agency can designate an examining physician or other appropriate practitioner, but must offer the individual the opportunity to submit medical documentation from his or her personal physician or practitioner.

**Schedule of Exams:**

1.0 New Teammate: Baseline and whenever there is a direct question about a Teammate's continued capacity to meet the physical or medical requirements of a position, or as recommended by the examining physician.

2.0 Age 34 and younger: Every four years

3.0 Ages 35 to 44 years: Every two years

4.0 Age 45 and older: Annually

**Medical Certification Procedure:**

1.0 Team Fishel's local office will coordinate the medical exams with local physicians set up by the Corporate Safety/HR Department.

2.0 Upon completion of a physical examination and the examining physician's summary recommendation stating the Teammate can/cannot perform the job, or if there are any restrictions on performing that job, Supervisors will determine if the Teammate will be allowed to climb towers.

3.0 This guidance is not to be used as grounds for dismissal if an individual, previously certified, fails the scheduled physical exam.

4.0 Maintain the results of the physical.

# APPENDIX B:
# TOWER CLIMBING: REQUIRED SIGNAGE AND POSTING

**Aluminum (H10" x L14")**

(Available at: www.mysafetysign.com)

1. Restricted Area All Persons Must Have Permission from Area Supervisor before Entering Area- Part # S-4065
2. Danger: Helmets Required In This Area - Part # S-2154
3. Danger: Men Working Above - Part # S-2719
4. Caution: Personal Protective Equipment Required Beyond This Point - Part # S-2906
5. Warning: Tripping Hazard - Part # S-4414
6. Caution: Radio Frequency Hazard (with graphic) Part # S-2771
7. All Required Hoisting, or Powered lifting devices' inspection reports are on site and available for review

**Postings**

8. Job Safety and Hazard Assessment, with Aerial Worker Rescue Plan with list of Emergency Numbers and written directions to site and directions to the nearest Emergency Medical Facility, as well as the Address for the site and the Latitude/Longitude.
9. Separate Map to the nearest Emergency Medical Facility, with written directions.
10. Building Permit
11. Electrical Permit
12. County approved construction drawings (placed in plastic tube under sign)

# APPENDIX C: POTHOLING PRACTICES

Team Fishel requires that all reasonable steps be taken to visibly identify the location and depth of the utility within the NO DIG ZONE to the depth you will be excavating.

- Use Soft digging whenever possible.
- Carefully begin potholing an area to the side of the marked utility. Keep the face of the shovel parallel with the utility line markings.
- Begin extending the pothole walls toward the utility line
- Once the utility line is visible, keep the face of the shovel parallel with the utility line, and use all precautions to remove the soil from around the utility line.
- Fully expose the extremities of the utility line per your states specifications and regulations.
    - Refer to ULP (section 10)
- Protect all exposed utility lines that could result from falling debris. i.e. rocks, compacted soil, tools, material.
- Be aware of any softening soil you are digging in. This is often an indication that you are in a trench line.
- Be aware of patched pavement that could indicate where utilities have been previously uncovered.
- Use extreme caution when warning tapes are uncovered. Utilities are in close proximity.
- Don't be aggressive when digging in close proximity to utility lines.
- Don't pry against a utility line to remove soil.
- Don't take for granted that a utility line will be a certain depth.
- Don't expose excessive lengths of a utility line without proper support.

Rule 1601 . . . . . Purpose and Scope
Rule 1602. . . . . Procedures
Rule 1603. . . . . Crane Safety Requirements
Rule 1604. . . . . Inspection of Crane Equipment
Rule 1605. . . . . Load Testing of Jibs and Rolling Outriggers
Rule 1606. . . . . .Anti Two-Block Devices
Rule 1607. . . . . Load Rating Charts
Rule 1608. . . . . .Critical Lifts
Rule 1609. . . . . Personnel Platforms
Rule 1610 . . . . . Qualifications
Rule 1611 . . . . . .Bucket-Truck Rescue (policy)
Rule 1612 . . . . . .Pole-Top Rescue (Policy)
Rule 1613 . . . . . .Crane Operation
Appendix A . . . . . .Hand Signals

## Rule 1601 . . . . . Purpose and Scope

1.0 Purpose
The purpose of Team Fishel's Crane Safety policies and procedures is to provide a safe working environment for crane operators and all Teammates on sites, subcontractors and the general public. In addition, surveys of the crane equipment and the operation of the crane has proven to be advantageous to the flow and expediency of work performed during any crane operation on construction sites.

2.0 Scope
These crane procedures shall be followed on all Team Fishel projects by all Teammates, subcontractors, subcontractor's employees, crane rental companies, crane operators, crane users, and any other persons, organizations, or contractors entering or operating crane equipment on any Team Fishel job site. These crane procedures will provide a method by which all cranes 14 1/2 ton capacity or greater shall be surveyed. However, all cranes shall be operated in accordance with all applicable regulations during use on Team Fishel projects. Prior to use on all projects, each 14 ½ ton capacity or greater crane shall be surveyed by a qualified person, designated by Team Fishel. Further, Team Fishel may require any crane of any capacity to be subject to these requirements at its discretion. The survey will include an inspection of the crane components, accessory gear, below the hook lifting devices, the assembly and setup of the crane each time a crane enters the project. Team Fishel's designated site Supervisor shall review each crane operator's credentials prior to allowing the crane to be operated. Additionally, the Supervisor shall monitor the crane operation and identify any procedures considered an unsafe operating practice. These procedures should assist the subcontractor and crane company in maintaining a safe working environment when cranes are used on Team Fishel projects.

3.0 Industry Compliance Requirements
The criteria and standards for the safe operation of cranes shall include the following:

- 3.1 Manufacturer's recommendations and requirements
- 3.2 American National Standards Institute (ANSI)
- 3.3 American Society of Mechanical Engineers (ASME)
- 3.4 Occupational Safety and Health Administration (OSHA)

*Note: Where the project is located in a state that has its own regulatory agency such a California's Division of Occupational Safety and Health Administration (Cal-OSHA), the crane equipment must meet the requirements of the state agency. These criteria are the minimum standards that must be met in all crane operations on all Team Fishel projects. This crane safety procedure manual does not purport to restate all of these regulations, but should be used for clarification and additional criteria to be adhered to while operating crane equipment on Team Fishel projects.*

4.0 Responsibilities

- 4.1 Team Fishel
  - 4.1.1 The designated project Supervisor shall be responsible for scheduling and timely arrival of each crane unit. The Supervisor has complete authority to cease any crane activity or operation on the project which does not comply with this manual and these policies and procedures. Upon notification of any safety deficiency, the Supervisor will discuss a plan of action with the subcontractor and crane crew to eliminate the safety deficiency.
- 4.2 Subcontractor
  - 4.2.1 The subcontractor shall be responsible for providing Team Fishel with the scheduled crane arrival time, general crane information such as type, size, and owner, anticipated lifts, and any critical lift plans prior to scheduled arrival date of the crane. Each subcontractor of Team Fishel shall comply with this

crane safety manual and these policies and procedures. The subcontractor shall be responsible for providing each crane owner and all operators with the crane safety criteria prior to bidding and/or arrival on any Team Fishel project. Prior to scheduling a crane, the subcontractor shall provide Team Fishel with a completed "Pre-Erection Hazard Analysis" form with a plan of action for items requiring corrective measures. The subcontractor shall ensure that each item requiring corrective measures are corrected prior to the arrival of the crane equipment. The subcontractor shall ensure that the crane and its crew are working within the guidelines set forth by the governing authorities and Team Fishel at all times. Any delays or down time due to the determination or correction of any crane safety deficiency shall be at the subcontractor's expense. The subcontractor shall ensure that the crane company has provided Team Fishel's management with a "certificate of insurance" and acceptable endorsement naming Team Fishel & the project owner & the subcontractor as additional insured on its general liability coverage 24 hours prior to the arrival of any crane equipment to the job site.

4.3 Crane Owner

4.3.1 Each crane owner shall comply with this crane safety manual and these policies and procedures. Crane owners providing equipment that is operated and maintained by personnel under their employ shall be responsible for the training and qualifications of the operator. The crane owner shall provide all required documentation such as manufacturers load charts, manufacturer's maintenance criteria, and proof of safety certifications consistent with the state and/or federal requirements for inspection by the crane surveyor, Team Fishel, the Supervisor, and/or the subcontractor. Where a safety deficiency or unsafe operation is found, the crane owner shall provide the subcontractor and/or Team Fishel with a proposed plan of action to eliminate the safety deficiency. Any delays due to operations or equipment that are adverse to these requirements shall be at the crane owner's expense. Crane owners shall provide Team Fishel's management with a "certificate of insurance" and an acceptable endorsement naming Team Fishel & the project owner & the subcontractor as additional insured on its general liability and excess coverage 24 hours prior to the arrival of any crane equipment to the job site. Team Fishel shall provide the crane owner with evidence of builder's risk insurance upon request. Further, the crane owner shall provide Team Fishel with the following crane safety documents:

4.3.1.1 Mobile Crane Safety Manual

4.3.1.2 Pre-Erection Hazard Analysis

4.3.1.3 Crane Operation Safety Survey

4.3.2 It is the responsibility of the crane owner to ensure that these procedures are read and understood prior to submitting a bid or estimate to any subcontractor or Team Fishel for crane work.

4.4 Crane Operator

4.4.1 Team Fishel requires all crane operators to be certified under the NCCO, or an equivalent program that has been reviewed by an independent assessment service accepted by the Team Fishel's Safety Director. All crane operators shall be experienced, trained, and qualified to operate the size of crane, type of crane, and type of work to be performed on the Team Fishel project. The operator shall provide proof of any training certificate or licenses possessed attesting to his or her crane operation knowledge, skill, and experience for review by the surveyor or Team Fishel Management. Each crane operator shall comply with this crane safety manual and these policies and procedures. The crane operator shall work directly with the project Supervisor and provide

the Supervisor with the information required on all Team Fishel crane survey forms. The crane operator will work with the Supervisor in an effort to correct any safety deficiencies found during the survey. Any crane operator, who determines that a lift is unsafe to be performed, shall refuse to continue operation of the crane with the full support of Team Fishel in eliminating the safety deficiency. Upon finding an unsafe condition, crane operator shall consult with the Team Fishel Supervisor in order to create a safe plan of action.

5.0 Exclusion

5.1 Digger derricks when used for auguring holes for poles carring electric or telecommunication lines, placing and removing the poles, and for handling associated materials for installation on, or removal from the poles, or when used for any other work subject to subpart V of this part. To be eligible for the exclusion, digger-derrick use in work subject to subpart V of this part must comply with all of the provisions of that subpart, and digger-derrick use in construction work for telecommunication service (as defined at 1910.268(s)(40) must comply with all of the provisions of 1910.268.

6.0 Definitions

**Accessory Gear** - A secondary part of the crane or crane component which contributes to the overall function of the crane which includes but is not limited to jibs, jib assemblies, outriggers, sheave assemblies, and counter weights.

**Anti Two-Blocking Device** - A warning or damage prevention feature which alerts the operator before the load block or ball assembly makes contact with upper boom sheave assembly2.

**Below-the-Hook Lifting Device** - Rigging used in conjunction with the crane to attach the load to be lifted to the crane hook assembly which includes but is not limited to such items as wire rope slings, lifting beams, skookum blocks, shackles, and web slings.

**Certified Agent** - The manufacturer, or a person who is currently registered as a professional civil, mechanical, or structural engineer by the state in which the Team Fishel project is located and is knowledgeable in the structure and use of the equipment.

**Certification of Crane Operators** (CCO) - The National Commission for the Certification of Crane Operators (CCO) is an independent not-for-profit corporation formed to establish and administer a nationwide program of certification of operators. This organization establishes set standards for measuring the knowledge and proficiency for the safe operation of crane equipment.

**Competent Person** - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to Teammates, and who has the authority to take prompt corrective measures to eliminate them.

**Functional** - A safety device shall be in use and operating while the crane is in use. Functional does not mean merely “capable of performing” for purposes of these safety requirements.

**Jib** - An extension attached to the boom point to provide added boom length for lifting specified loads.

**On-Rubber Pick and Carry** - A lift made in conjunction with the manufacturer’s load chart without the use of outriggers in which the load is lifted and moved under the power of the crane unit.

**Rolling Outriggers** - An accessory component that is attached to the outrigger assembly in lieu of outrigger pads which allow for pick and carry with the outriggers extended. Use of this equipment requires that the component and load chart is approved by the manufacturer or certified agent.

**Qualified Person** - A person who, by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve problems relating to the subject matter and work.

**Qualified Rigger** - a rigger who meets the requirements for a qualified person.

## Rule 1602 . . . . . Procedures

1.0 Bid Procedures

- 1.1 Each subcontractor shall submit in its bid set, a declaration that all crane equipment utilized on Team Fishel projects will meet the criteria required in the bid specifications for safe crane operation.
- 1.2 Each subcontractor will receive the Crane Safety Manual: Policies and Procedures, Crane Operation Survey, and a Pre-Erection Hazard Analysis form upon award of contract.
- 1.3 The subcontractor shall provide copies of the Crane Safety Manual with Policies and Procedures, Crane Operation Survey, and a Pre-Erection Hazard Analysis form for each crane rental company who plans to provide crane equipment for use on Team Fishel projects prior to a pre-job conference.

2.0 Subcontractor Safety Start-up Meeting

- 2.1 Each subcontractor, along with a representative of the crane provider, shall attend a pre-job start-up meeting with Pre-Erection Hazard Analysis form completed.

3.0 Crane Survey Procedure

- 3.1 The subcontractor shall notify the Team Fishel Project Supervisor in advance of a scheduled crane arrival. The notification shall include the following information:
  - 3.1.1 On-site subcontractor contact name
  - 3.1.2 Crane type (Hydraulic, conventional, crawler, etc.)
  - 3.1.3 Crane capacity
  - 3.1.4 Arrival time for crane assembly
  - 3.1.5 Work start time
  - 3.1.6 Crane owner / rental company name
  - 3.1.7 Type of work to be performed (tilt-up panels, steel erection, set air-conditioning unit, etc.)
  - 3.1.8 Copy of pre-authorized critical lift plan as needed

## Rule 1603 . . . . . Crane Safety Requirements

1.0 A Job Hazard Analysis or safety briefing is to be completed before the start of any work to identify any hazards associated with the work zone. All Teammates on the job are required to acknowledge their understanding of the tasks, hazards, equipment, ect. (by signing the written JHA/Job Safety Briefing).

2.0 Report any unsafe conditions to the subcontractor foreman or Project Supervisor immediately.

3.0 Access for entry and assembly of the crane shall be free from obstructions, underground hazards, and overhead power lines.

4.0 All crane equipment and operation of crane equipment shall meet the requirements of the manufacturer, ANSI, ASME, and OSHA.

- 4.1 A crane inspection form shall be completed by the crane operator before each use.
- 4.2 An inspection of the crane shall be performed monthly by a competent person.

5.0 Crane equipment shall have the required inspection and proof load testing certificates current and available upon arrival at the job site.

6.0 Lifting beams (commonly known as “spreader bars”) shall conform to ANSI B30.20, 1985 regulations which requires the following permanent markings:

- 6.1 Manufacturer’s name
- 6.2 Serial number (ID #)
- 6.3 Weight of the bar if over 100 lbs.
- 6.4 Rated load
- 6.5 Initial Proofload testing at 125% of the lifting beam’s capacity.

7.0 Proof of initial load testing shall be provided for all lifting beams. Load test shall not exceed 125% of the rated load.

8.0 Engineering data shall be provided to Team Fishel Management on all specialized below-the hook lifting devices.

9.0 No crane shall be operated near high voltage as follows:

Table A requirements are a minimum. Team Fishel requires that Teammates maintain a 20 foot clearance from any voltage exceeding 600 volts with mechanical equipment. If Teammates must encroach 20 feet with mechanical equipment then approval from the Area Manager is required.

Table A–Minimum Clearance Distances

| Voltage (nominal, kV, alternating current) | Minimum clearance distance (feet) |
|---|---|
| up to 50 | 10 |
| over 50 to 200 | 15 |
| over 200 to 350 | 20 |
| over 350 to 500 | 25 |
| over 500 to 750 | 35 |
| over 750 to 1,000 | 45 |
| over 1,000 | (as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution). |

10.0 Crane shall travel with no load and the boom or mast lowered near high voltage as follows:

- 10.1 over 0 to 50 kV- minimum clearance 6 feet
- 10.2 over 50 to 345 kV- minimum clearance 10 feet
- 10.3 over 345 to 750 kV- minimum clearance 16 feet
- 10.4 over 750 to 1000 kV- minimum clearance 20 feet

11.0 When working near transmitter towers the following pre-work precautions shall be taken:

- 11.1 Ensure transmitter tower is de-energized and grounded;
- 11.2 Test to determine of electrical charge induced on the crane.
  - 11.2.1 Crane will be properly grounded to eliminate the potential of induction.
  - 11.2.2 When lifting in the vicinity of a energized tower use a non conductive device between the crane and the load.
  - 11.2.3 All ground jumper cables will be attached with appropriate rated tower clamps from the material to the boom equipment.

12.0 No loads shall be lifted over personnel.

13.0 No one shall place their hands or any other portion of the body under a load suspended by the crane.

14.0 No unauthorized personnel shall be working within the lifting area of the crane.

15.0 Yellow caution tape shall be used to prevent personnel from entering the crane rotation area.

16.0 All personnel shall be clear of crawler tracks while the crane is moving.

17.0 All personnel except for the operator and oiler shall be clear of the crane rotating area during its operation.

18.0 A designated and qualified signal person shall provide direction to the operator using the standard hand signals or radio communications that are common to the industry.

19.0 The lifting area encompasses that area where the boom is likely to swing over during the lift. This area should be clear of any person who is not directly involved with the lifts being performed.

20.0 No lifts shall exceed 75% of the manufacturer's load rating unless a written critical lift plan has been submitted and pre approved. Where tilt-panels panels are being lifted, no lifts shall exceed 85% of the manufacturer's load rating unless a written critical lift plan has been submitted and pre approved.

21.0 The manufacturer's load chart shall be affixed to the crane or located in the operator's cab accessible to the operator.

22.0 All lifts and crane configurations shall be consistent with the manufacturer's requirements and load charts.

23.0 When pick and carry operations occur, the ground shall be smooth, level, and compacted, free from obstructions, underground hazards, and overhead power lines.

24.0 No cribbing shall be placed under the crane axle, frame, or out rigger extension beams.

25.0 Jib and boom shall be free from structural damage that exceeds the manufacturer's maximum allowable tolerances.

26.0 Anti two-blocking device shall be functional and operational on all cranes equipped with such device. (All cranes that are operated in states where anti-two blocking devices are required shall be equipped in accordance with that state's standards).

27.0 A load indicator shall be on all load lines in use on mobile cranes that exceed 50 tons rated capacity or 200 feet of boom.

28.0 An electronic boom angle indicator shall be provided on all hydraulic cranes exceeding 15 tons rated capacity or a 60 feet boom length.

29.0 No crane shall be operated in wind speeds that exceed 35 mph or the manufacturer's recommendations which ever is the lesser wind speed.

- 29.1 Where surface area of material being lifted creates a sail affect, the crane may be required to cease operating at lower wind speeds than stated.

30.0 Wind speed indicators shall be provided by Team Fishel at each site location and affixed to a pole or structure at the highest point possible above the ground level.

- 30.1 Where possible, the wind indicator shall be properly affixed to the crane boom.

31.0 No person shall disable or circumvent a safety device while the crane is performing lifting service.

32.0 All assembly/disassembly operations shall be performed by a designed person who is both competent and qualified. This may be the operator or anther Teammate meeting the definition.

- 32.1 Manufacturer's specification/instruction shall be followed during assembly/disassembly.

33.0 All rigging shall be performed by a qualified rigger who has ability to properly rig the load for a particular job. A rigger may be qualified for one type of rigging and not another.

34.0 A signal person shall be used when the visibility of the operator is obscured or obstructed or when the point of operation is not in full view of the operator.

35.0 A signal person shall be used to observe operating clearance when working near high voltage.

## Rule 1604 . . . . . Inspection of Crane Equipment

1.0 California Projects
All cranes assembled or operated on Team Fishel Projects located in California shall have a current annual certificate of inspection and a current quadrennial certificate of inspection and proof load test issued by a crane surveyor licensed and accredited by the California Division of Occupational Safety and Health Administration (Cal-OSHA). Copies of these certifications shall be located on the crane upon its arrival at the job site and provided for inspection by a qualified Team Fishel representative prior to operation of the crane on any project. If either certificate expires while in operation on a project, the crane shall cease its operation until such time the crane is inspected, tested, and a current certificate has been issued by a licensed crane surveyor.

2.0 Other States
No crane shall be operated or assembled prior to providing proof of an annual safety inspection performed by a qualified person. The inspection criteria and document shall be consistent with Federal Occupational Safety and Health Administration, Department of Labor regulations and regulatory agency of the governing state that the project is located. Proof of such inspection shall be located on the crane upon its arrival at the job site and provided for inspection by a qualified Team Fishel representative prior to operation of the crane on any project.

2.1 It is the responsibility of the crane operator to inspect the piece of equipment before the start of each use. If at any point the crane operator identifies an issue with the crane, the crane must be taken out of service immediately.

## Rule 1605 . . . . . Load Testing of Jibs and Rolling Outriggers

This section applies states that require proofload testing of crane equipment.

1.0 All cranes that perform lifts with the jib attachment or rolling outriggers on Team Fishel projects shall have a current certification stating that the jib and rolling outriggers have been proofload tested by a qualified person. Proof load tests shall be performed during the initial proofload testing and every four years thereafter, unless a structural repair has been performed on the crane. If a structural repair has been performed (even if the jib was not damaged) a load test shall be performed prior to placing the crane back into service. No proof load test of the jib or rolling outriggers is required during the annual certification as long as proof load testing of these components has been performed in accordance with the requirements specified above. Where the crane owner elects not to test the jib or rolling outriggers, it shall be noted on the certificate and the jib or rolling outriggers shall not be used until load testing has been successfully completed. These requirements apply equally to telescopic and lattice boom cranes.

## Rule 1606 . . . . . .Anti Two-Block Devices

1.0 Cranes manufactured after February 28, 1992
Telescopic boom cranes operated on Team Fishel projects shall be equipped with a functional anti two-block damage prevention feature. Lattice boom cranes operated on Team Fishel projects shall be equipped with a functional anti two-block damage warning feature.

2.0 Cranes manufactured before February 28, 1992
All cranes equipped with an anti two-blocking device shall be operated with the device fully functional during all lifts conducted on Team Fishel projects.

## Rule 1607 . . . . . Load Rating Charts

1.0 A durable load chart with clearly legible letters and figures provided by the crane manufacturer or a certified agent experienced and familiar with the characteristics of the crane equipment shall be securely fixed (where the manufacturer's load chart is provided in a binder or other book form, the chart shall be located in the operator's cab) to the crane in a location clearly visible to the operator or within reach of the operator while at the control station. The chart shall contain a full and complete range of crane load ratings, consistent with the manufacturer's' recommendations, at all stated operating radii or boom angles and for all permissible boom lengths, jib lengths and angles, also alternate ratings for use and non-use of optional equipment on the mobile crane, such as outriggers and counterweights which affect ratings. The chart shall also contain essential precautionary or warning notes relative to limitations on equipment and operating procedures, including indication of the least stable position. In addition, no crane shall be re-rated unless such rating changes are approved by the certified agent. Load ratings shall be expressed in terms related to method of measuring boom angle and length or lifting radius.

2.0 Interpretation
Where the actual boom angle does not match the values shown on the load chart, the value used must be the next lower boom angle number. Where the actual load radius does not match the values shown on the load chart, the value used must be the next higher radius number.

2.1 Example
The load is to be placed at a 55-ft radius at 47° boom angle. The load chart values are shown for 50-ft. radius at 55° boom angle with the next value at 60-ft. radius at 45° boom angle. The capacity reflected at the 60-ft. radius at 45° boom angle must be used for this example since no capacity values are given for the actual load radius and boom angle.

## Rule 1608 . . . . . Critical Lifts

1.0 A critical lifts is established where any one of the following conditions are created:

1.1 Where in the crane's current configuration at any point during the lift, a gross load weight exceeds 75% of the capacity of the crane, or 85% of the capacity of the crane where tilt-up panels are erected.

1.2 A single lift that two or more cranes are used including tandem lifts and tailing cranes.

1.3 Lifts made in close proximity of power lines as defined by the voltage clearance specifications described above.

1.4 Lifts involving specialized or unique and complex rigging equipment.

1.5 Hoisting of suspended work platforms.

1.6 Static tower crane erection and dismantlement.

1.7 Making lifts below the ground level where the crane is positioned.

*Note: Where the below the ground lift is minimal, a critical lift plan may not be required.*

2.0 Critical Lift Plan

2.1 Where a critical lift will be performed, a written critical lift plan shall be submitted to Team Fishel prior to commencing with the lift. The written plan shall include the following:

2.1.1 Crane manufacturer, capacity, and all specifications for the configuration to be used for the lift.

2.1.2 Load chart data for the crane to be used to make the lift.

2.1.3 Total calculated weight of the load to be lifted including all rigging and other deductions consistent with the manufacturer's load chart.

2.1.4 Diagrams of the lift that provides geometrical conditions of the load, rigging, and all crane positions during the lift. The drawing shall provide the following:

- 2.1.4.1 Locations of all components to be lifted prior, during and after the lift is completed.
- 2.1.4.2 Radius points.
- 2.1.4.3 Swing patterns.
- 2.1.4.4 In the event that the lift must be aborted, positions where the load may be safely landed.
- 2.1.4.5 Areas where any personnel, public, and vehicles must be evacuated during the lift.

2.1.5 Potential ground loading for each point of contact by the crane in selected locations in which the crane will perform the critical lift.

2.1.6 Soil and subsurface data and information pertaining to the location on which the crane used for the critical lift will be positioned. This information shall be procured from an authoritative source such as a geotechnical engineer or a professional civil engineer registered in the state where the project is located. This information may be available from Team Fishel for selected locations on some projects.

2.1.7 An engineer shall use the data provided in 2.1.5 and 2.1.6 above to verify and confirm the following:

- 2.1.7.1 That the soil and subsurface conditions are capable of supporting all loads imposed during the critical lift.
- 2.1.7.2 That the designs of cribbing and other supports used under the crane load points are appropriate to safely transfer such loads.

2.1.8 Signature and stamp on the plan by a registered professional engineer licensed in the state in which the project is located, evidencing review of the plan as meeting the requirements set forth in this manual and that all loads and load information and calculations contained in the plan are approved, acceptable and safe to perform.

2.1.9 Operator qualifications.

2.1.10 Method by which communication will be provided to the crane operator. (Designated signal person, two-way radio, hard wire phone system, etc.)

2.1.11 A critical lift hazard analysis which identifies the particular hazards associated with the lift and the means and methods to reduce, mitigate, or eliminate the hazards.

2.1.12 Emergency action plan.

2.1.13 The written plan shall be submitted 72 hours prior to any critical lift for review by Team Fishel's job Supervisor and crane surveyor. No critical lifts shall be conducted prior to such approval.

## Rule 1609. . . . . Personnel Platforms

The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous or is not possible because of structural design or worksite conditions. If a crane suspended work platform is used, its use shall be conducted in accordance California Code of Regulations, Title 8, § 5002. Where work is conducted outside of California, Federal O.S.H.A., 29 C.F.R. 1926 § 550(g) shall be followed unless the regulations of the state where the project is located exceed these requirements.

1.0 Safe and Proper Use of Personnel Platforms

- 1.1 The hoisting of a personnel platform shall be performed in a slow, controlled, cautious manner with no sudden movements of crane or the platform.
- 1.2 The load lines shall be capable of supporting, without failure, at least seven times the maximum intended load, except that where rotation resistant rope is used, the lines shall be capable of supporting, without failure, at least 10 times the maximum intended load.
- 1.3 The load and boom hoist drum brakes, swing brakes, and locking devices (such as pawls or dogs) shall be engaged when the occupied personnel platform is a stationary working position.
- 1.4 The crane shall be uniformly level within one percent of level grade and located on firm footing. Cranes with equipped outriggers shall have them fully deployed following manufacturer's specifications, in so far as applicable, when hoisting Teammates.
- 1.5 The total weight of the loaded personnel platform and related riggings shall not exceed 50 percent of the rated capacity for the radius and the configuration of the crane.
- 1.6 Cranes with variable angle booms shall be equipped with a boom angle indicator that is readily visible to the operator.
- 1.7 Cranes with telescoping booms shall be equipped with a device to indicate clearly to the operator at all times the boom's extended length. An accurate determination of the load radius to be used during the lift shall be made prior to hoisting personnel.
- 1.8 A positive acting device (anti-two-blocking device) or other system shall be used which deactivates the hoisting action before damage occurs in the event of a two-blocking situation.
- 1.9 The load line hoist drums shall have a system or device on the power train, other than the load hoist brake, which regulates the lowering rate of speed of the hoist mechanism. Free fall is prohibited.

2.0 Design criteria for Personnel Platforms

- 2.1 The personnel platform and suspension system shall be designed by a qualified engineer or qualified person competent in structural design.
- 2.2 The suspension system shall be designed to minimize tipping of the platform due to movement of Teammates occupying the platform.
- 2.3 The personnel platform itself, except the guardrail system and body belt harness anchorages, shall be capable of supporting, without failure, its own weight and at least 5 times the maximum intended load.

3.0 Platform Specifications

- 3.1 Each personnel platform shall be equipped with a guard rail system, and the guard rail system shall be enclosed at least from the toe-board to the mid-rail, with either solid construction or expanded metal that does not have any openings that are greater than ½ inch.
- 3.2 A grab rail shall be installed inside the entire perimeter of the personnel platform.

3.3 Access gates, if they are installed, shall not swing outward during the hoisting. The access gates, including sliding or folding gates, shall be equipped with a restraining device to prevent accidental opening.

3.4 Headroom shall be provided which allows Teammates to stand upright in the platform. In addition to the use of helmets, Teammates shall be protected by overhead protection on the personnel platform when Teammates are exposed to falling objects.

3.5 All rough edges exposed to contact by Teammates shall be surfaced or smoothed in order to prevent injury to Teammates from punctures or lacerations.

3.6 All welding of the personnel platform and its components shall be performed by a qualified welder that is familiar with the weld grade types and materials specified in the platform design.'

3.7 The personnel platform shall be conspicuously posted with a plate or other permanent marking which indicates the weight of the platform and its rated load capacity or maximum intended load.

4.0 Personnel Platform Loading

4.1 Personnel platforms shall be used only for Teammates, their tools, and the materials necessary to do their work, and shall not be used to hoist only materials or tools when not hoisting personnel.

4.2 Materials and tools for use during a personnel lift shall be secured to prevent displacement.

4.3 Materials and tools for use during a personnel lift shall be evenly distributed within the confines of the platform while the platform is suspended.

5.0 Rigging

5.1 When a wire rope bridle is used to connect the personnel platform to the load line, each bridle link shall be connected to a master link or shackle in such a manner to ensure that the load is evenly divided among the bridle legs.

5.2 Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be of a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut, and a retaining pin may be used.

5.3 Wire ropes, shackles, rings, master links, and other rigging hardware must be capable of supporting, without failure, at least 5 times the maximum intended load applied or transmitted to that component. Where rotation resistant rope is used, the slings shall be capable of supporting, without failure, at least ten times the maximum intended load.

5.4 All eyes in wire rope slings shall be fabricated with thimbles.

5.5 Bridles and associated riggings for attaching the personnel platform to the hoist line shall only be used for the platform and the necessary Teammates, their tools, and the materials necessary to do the work, and shall not be used for any other purpose when not hoisting personnel.

6.0 Trial Lift, Inspections, and Proof Testing

6.1 A trial lift with the unoccupied personnel platform loaded at least to the anticipated lift weight shall be made from the ground level or any other location where Teammates will enter the platform to each location at which the personnel platform is to be hoisted and positioned. The trial lift shall be performed immediately prior to placing personnel on the platform. The operator shall determine that all systems, controls, and safety devices are activated and functioning properly, and that no interferences exist. The operator will also assure that all configurations that are necessary to reach those work locations and will allow the operator to remain under the 50 percent limit of the hoist's rated capacity.

6.2 The trial lift shall be repeated prior to hoisting Teammates whenever the crane or derrick is moved and set in a new location or returned to a previously used location. The trial lift shall be repeated when the lift route is changed.

6.3 After the trial lift and just prior to hoisting personnel, the platform shall be hoisted a few inches and inspected to ensure that it is secure and properly balanced.

6.4 Teammates shall not be hoisted unless the following conditions are determined to exist:

6.4.1 Hoist ropes shall be free of kinks.

6.4.2 Multiple part lines shall not be twisted around each other.

6.4.3 The primary attachment shall be centered over the platform.

6.4.4 The hoisting system shall be inspected to ensure that all ropes are properly stated on drums and in sheaves if the load rope is slack

6.5 A visual inspection of the crane shall be conducted by a competent person immediately after the trial lift to determine whether the testing has exposed any defect or produced any adverse effect upon any component or structure.

6.6 Any defects found during inspections which create a safety hazard shall be corrected before hoisting personnel.

7.0 Work Practices

7.1 Teammates shall keep all parts of the body inside the platform during raising, lowering, and positioning. This provision does not apply to an occupant of the platform performing the duties of a signal person.

7.2 Before Teammates exit or enter a hoisted personnel platform that is not landed, the platform shall be secured to the structure where the work is to be performed, unless the securing to the structure creates an unsafe condition.

7.3 Tag lines shall be used unless their use creates an unsafe condition.

7.4 The crane operator shall remain at the controls at all times when the crane engine is running and the platform is occupied.

7.5 The hoisting of Teammates shall be promptly discontinued upon the indication of any dangerous weather or any other dangers.

7.6 Teammates being hoisted shall remain in continuous sight of and in direct communication with the operator and signal person.

7.7 The Teammates occupying the personnel platform shall use a body belt/harness system with a lanyard appropriately attached to the lower lead block or to a structural member within the personnel platform capable of supporting a fall impact for Teammates using anchorage.

8.0 Pre-Lift Meeting

8.1 Before the lift occurs, a pre-lift meeting must be held involving the Project Supervisor, operator, signal person, and Teammates to be lifted. The meeting should be held prior to the trial lift at each new work location and shall be repeated for any Teammates newly assigned to the operation.

8.2 Teammates shall keep all parts of the body inside the platform during raising, lowering, and positioning.

8.3 Before Teammates exit or enter a hoisted personnel platform that is not landed, the platform shall be secured to the structure where the work is to be performed, unless securing to the structure creates and unsafe condition.

8.4 The crane or derrick operator shall remain at the controls at all times when the crane engine is running and the platform is occupied. Hoisting of Teammates shall be discontinued upon indication of any dangerous weather condition or other impending danger.

8.5 Teammates being hoisted shall remain in continuous sight of, and in direct communication with, the operator or signal person.

8.6 Hoisting of Teammates while the crane is traveling is prohibited.

**Rule 1610 . . . . . Qualifications**

All persons who perform crane safety surveys or operate crane equipment on Team Fishel projects shall be adequately trained and experienced on the type of crane and lifts that are to be performed.

1.0 Team Fishel requires all crane operators to be certified under the CCO or an equivalent program that has been reviewed by an independent assessment service accepted by the Team Fishel's Safety Director. Proof of CCO certification or its equivalent (as defined under Crane Operator) shall be provided to Team Fishel's Project Supervisor prior to commencing any crane operations.

2.0 It shall be the responsibility of the subcontractor to ensure that all operators hired or contracted with are qualified, trained, and experienced prior to commencing with lifts on Team Fishel projects. In addition, all crane surveyors shall be required to complete CCO testing.

3.0 Signal Persons shall be trained in the proper use of signals used on the work site (hand signals, voice, or electronic), demonstrate competency in using these various signal methods, understand the basic operations and limitations of the crane in use and know the relevant signal person rules per 1926.1419-1422 and 1428. Signal persons may be trained in-house per the OSHA requirements or via a third party trainer ( 1926.1428(2) (option 1 or 2).

4.0 Riggers – a rigger is deemed qualified when they have the ability to properly rig the load for a particular job. Team Fishel will determine which Teammates are qualified to rig specific loads. Such determination will be done based on a Teammate or Teammates' experience, training, knowledge and ability to solve any problems related to the rigging of loads.

5.0 Maintenance and repair employees must meet the definition of qualified person with respect to the repairs and maintenance being performed. Such Teammate(s), unless certified as an operator, may operate the crane only to the degree necessary to perform maintenance or inspection or verify performance or under the direct supervision of the certified operator.

6.0 Assembly and disassembly, including erection of crane jibs, will be performed under the direction of a person or persons who are competent and qualified. Such a person may be the certified operator of the operator and another person or persons per 1926.1404(a)(1). All rigging related to assembly/disassembly shall be performed by a qualified rigger per(1926.404(r)(1).

## Rule 1611 . . . . . Bucket-Truck Rescue (policy)

Bucket truck rescue is a skill set needed when a Teammate who is working from an aerial device becomes injured or unconscious while working in the elevated position. The rescuing Teammate must be able to lower an injured teammate to the ground and remove them from the bucket within 4 minutes to be in a position to provide CPR. Permanent brain damage occurs when the brain has been deprived of oxygen for greater than 4 minutes.

The first step in any emergency situation is to be prepared in advance. Your address or GPS location must be available on your Plan of the Day. You should have rubber gloves available outside the truck in the event the truck is energized.

When an accident occurs or Teammate appears unconscious the following steps are to be taken to perform bucket rescue at Team Fishel.

- Call to the Teammate “Are you okay?” If unresponsive or the answer back is no
- If you are not alone direct fellow Teammate to call 911 and begin rescue
- If you are alone on the ground -Rotate Teammate out of any imminent danger and call 911
    - Give your address or GPS Coordinates
    - Wait for response from 911 operator
- Proceed to the lower controls on the bucket truck
    - Place override lever into lower boom position
    - Utilizing the control levers –rotate and lower the bucket to the ground
    - Insure that you lower the bucket into a position that is safe from traffic or any other potential danger ( Take care not to slam the Bucket on the ground)
- Utilize the tilt feature on the bucket to tilt the bucket down
- Position yourself in a way to best support your injured Teammate and pull them out of the bucket onto the ground
- Insure the Teammate is on their back
- Begin assessing the need for CPR
- If CPR is needed begin CPR
- If Teammate is coherent then comfort them and insure they know help is on the way.

## Rule 1612 . . . . . Pole-Top Rescue (Policy)

Pole Top rescue is a skill set needed when a Teammate who is working from standing wood structure becomes injured or unconscious while in the working position. The rescuing Teammate must be able to ascend the pole and lower an injured teammate, safely, to the ground. The rescuing Teammate must be able to lower the injured Teammate to the ground and be in position to perform CPR within 4 minutes. Permanent brain damage occurs when the brain has been deprived of oxygen for greater than 4 minutes.

The first step in any emergency situation is to be prepared in advance. Your address or GPS location must be available on your Plan of the Day. You shall have a set of climbing gear on the ground for rescue purposes prior to any Teammate ascending a pole as well as rubber gloves and sleeves available for the Teammate on the ground.

When an accident occurs or Teammate appears unconscious the following steps are to be taken to perform Pole Top rescue at Team Fishel.

- Call to the Teammate “Are you okay?” If unresponsive or the answer back is no prepare to begin rescue.
- If you are not alone direct fellow Teammate to call 911 and begin rescue
- If you are alone on the ground call 911
  - Give your address or GPS Coordinates
  - Wait for response from 911 operator
- Prepare to rescue the Teammate from pole
  - If there was electrical flash or contact insure any danger for further electric shock is mitigated
  - Insure the area the Teammate will be lowered into is free of material or obstructions
  - Observe hand line location and insure it is on pole in an appropriate place to perform the rescue
- Put on your tools and ascend the pole (insure you utilize your fall restraint device)
- Talk to the Teammate. Let them know you are there to help, If they are coherent be sure to keep them calm
- Insure the hand line is secured above the Teammate in an appropriate location that will support the weight of the Teammate
- Split Hand line and drop the fall line.
- Wrap the hook end of the hand line around the fall line 3 times leaving enough slack to wrap around the Teammate’s chest and tie knots
- Pull slack and tie three half hitches under arms and around chest of injured Teammate
- Remove slack from line
- Hold the tag line end of the hand line firmly and cut the injured Teammates safety to free them from pole.
- Slowly lower the Teammate to the ground taking care not to lower them too quickly and injure them further by hitting the ground too hard
- Descend the pole and position yourself to assess the Teammate
- Begin assessing the need for CPR
- If CPR is needed begin CPR

**Rule 1613 . . . . . .Crane Operation**

Operation Near Electric LInes up to 350KV (New)

When the operation of a crane is required to operate near overhead electric lines the operator, crew, and management must. (1926.1408)

- Identify the work zone either by a line, boundary, or other conceptual separation that would prohibit the operator from operating the equipment past the boundaries. Or by defining the work zone as the area 360 degrees around the equipment, up to the equipment’s maximum working radius.

- Determine if any part of the crane, equipment, load line or load that included the rigging and lifting accessories, if operated up to the equipment maximum working radius of the work zone that was previously identified above could (could include the backlash of a broken winch line) get closer than 20 feet to a power line. If so, one of the following 3 requirements must be met. The options below are in order by the preferred method.

    a. De-energize and ground - Confirm the power line has been de-energized and visibly grounded at the worksite by contacting the utility owner / operator.

    b. 20' clearance - Ensure that no part of the equipment, load line, or load that includes the rigging and lifting accessories, gets closer than 20 feet of the power line by implanting the measures below. Can also be found in 1926.1407(b).

1.1 Conduct a planning meeting with the operator and the other teammates who will be in the area of the equipment or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment / electrocution.

1.2 Tag lines that are used must be of non-conductive material.

1.3 Erect and maintain an elevated warning line, barricade, or line of sight, in view of the operator, equipment with flags or similar high-visibility markings, at 20' from the power line. If the operator is unable to see the elevated warning line(s),

1.4 Implement at least one of the following measures:

    a. A proximity alarm set to give the operator sufficient warning to prevent encroachment.

    b. A dedicated spotter must be used who is in continuous contact with the operator. The spotter must:

        - Be equipped with a visual aid to assist in identifying the minimum clearance distance. Examples of a visual aid include, but are not limited to.
        - A clearly visible line painted on the ground.
        - A clearly visible line of stanchions.
        - A set of clearly visible line-of-sight landmarks. Could be a fence post behind the dedicated spotter and a building corner ahead of the dedicated spotter. A dedicated spotter must be used who is in continuous contact with the operator.
        The spotter must:
        - Be effectively positioned to gauge the clearance distance.
        - When necessary, Use equipment that enables the dedicated spotter to communicate directly with the operator by way of radio or signals.

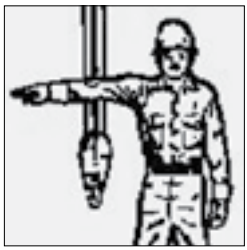
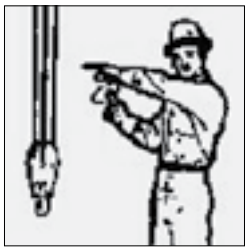
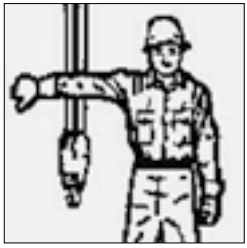
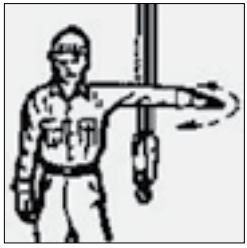
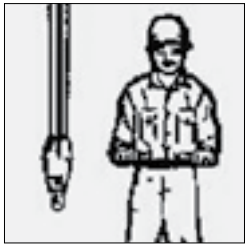
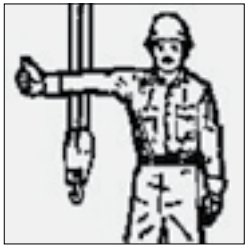
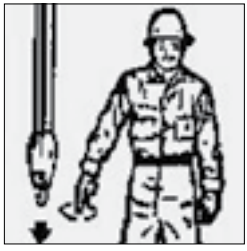
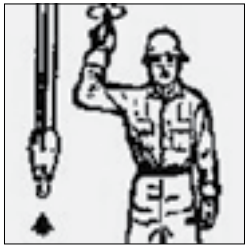
    c. A device such as a range control warning device that warns the operator when to stop movement. The device must be set to give the operator sufficient warning to prevent encroachment.

    d. A device that automatically limits range of movement that is set to prevent encroachment.

    e. An insulated link/device, as defined in 1926.1401 is installed at a point between the end of the load line (or below) and the load.

# APPENDIX A:
# HAND SIGNALS

(See Appendix A to Subpart CC of Part 1926 for additional Hand Signals)

| | | |
|---|---|---|
|  |  |  |
| **EXTEND BOOM**<br>Both fists in front of body with thumbs pointing outward | **SWING**<br>Arm extended, point with finger in direction of desired boom swing. | **MOVE SLOWLY**<br>Use one hand to give any motion signal and place the other hand motionless in front of the hand giving the signal (ie, hoist slowly). |
|  |  |  |
| **LOWER BOOM**<br>Arm extended, fingers closed, thumb pointing downward | **STOP**<br>Arm extended, palm down, move arm back and forth horizontally.<br>*(For EMERGENCY STOP, extend both arms with same motion.)* | **RETRACT BOOM**<br>Both fists in front of body with thumbs pointing toward each other |
|  |  |  |
| **RAISE BOOM**<br>Arm extended, fingers closed, thumb pointing upward | **LOWER**<br>With arm extended downward, forefinger pointing down, move hand in small horizontal circle. | **HOIST**<br>With forearm vertical, forefinger pointing up, move hand in small horizontal circle. |

Rule 1701 . . . . . General Compliance Requirements and Definitions
Rule 1702 . . . . . Monitoring and Testing
Rule 1703 . . . . . Hearing Protection
Rule 1704 . . . . . Training and Recordkeeping
Appendix A . . . . . Permissible Noise Exposures
Appendix B . . . . . Hearing Protection Equipment Summary
Appendix C . . . . . Noise Exposure Measurements

**Rule 1701 . . . . . .General Compliance Requirements and Definitions**

This policy establishes standards and procedures to help protect the hearing of all Teammates and to aid in the prevention of any temporary or permanent noise-induced hearing loss in those Teammates exposed to sound levels greater than 85dbA on an 8 hour time-weighted average and to comply with the regulatory requirements found at 29 CFR 1910.95 and 29 CFR 1926.52.

1.0 General Requirements

1.1 In accordance with 29 CFR 1910.95 and 29 CFR 1926.52 all Teammates exposed to workplace noise at or above the action level of 85 dBA for an 8 hour time-weighted average workday shall be protected against the effects of noise-induced hearing loss (See Appendix A).

1.2 When sound levels exceed those listed in Appendix A, engineering or administrative controls should be utilized. If those measures are unfeasible or fail to abate the excessive noise, hearing protection shall be used to reduce the sound levels to those listed in the appendix.

1.3 All personal protective equipment used as part of this program will be provided by Team Fishel at no cost to the affected Teammates.

2.0 Responsibilites

2.1 Team Fishel's Safety Director is responsible for administering the Hearing Conservation Program and all testing, monitoring, and training activities associated with the program. The Director shall be responsible for the periodic re-evaluation of the program.

2.2 Team Fishel's management team including Area Managers and Safety Coordinators shall be responsible for:

2.2.1 Identifying areas where the action level may be exceeded.

2.2.2 Identifying the Teammates whose work function place them high noise areas.

2.2.3 Selection and procurement of appropriate PPE.

2.2.4 Training, testing and fitting Teammates in the use of hearing PPE and monitoring its safe and proper use in the field.

2.2.5 Documenting any training activities and insuring records are entered in the HRIS.

2.3 Team Fishel Foremen and Supervisors are responsible for:

2.3.1 Ensuring Teammates in effected areas are wearing hearing PPE as required.

2.3.2 Ensuring that replacement units are readily available in the field.

2.3.3 Counseling and documenting failures to wear required hearing protection.

2.3.4 Assisting the Safety Coordinator in the identification of potential high noise areas and in the selection of appropriate hearing protection.

2.4 Teammates in the Hearing Conservation Program are responsible for:

2.4.1 Adhering to all safety aspects of this program.

2.4.2 Participate in the monitoring program and all training related to the program.

2.4.3 Properly inspecting, cleaning, wearing, and replacing any hearing PPE assigned to them.

3.0 Definitions

**Audiogram** – a record of hearing thresholds for each ear at specified tone frequencies. This test is measured by an audiometer.

**Decibel** (dB)– A unit of measurement used to express sound pressure levels (SPL). OSHA and ANSI requirements call for a measurement on the A-weighted network which discounts the lower range of frequencies of less concern for hearing conservation. This is often expressed as dBA.

**8-hour time-weighted average** (TWA)– a measure of the severity of the Teammate's workday noise environment. The TWA is an expression of the constant noise level, measured in dBA, which can potentially produce hearing damage over a 8 hour period, as the actual noiose exposure. It does not reflect the effects of any hearing protection worn by the Teammates.

**Hearing Attenuator** – an earplug, canal plug, ear muff or other device worn on or in the ear to reduce the effects of unwanted noise.

**Impulse Noise** – a single burst of acoustic energy producing a rise of 40 dB or more in a one second time interval.

**NRR** – Noise Reduction Rating – a protection factor assigned to a hearing protection attenuator. Based on a formula that provides a theoretical or laboratory-based noise reduction potential. Expressed as a numerical value, such NR 27.

**Potentially Hazardous Noise** – Exposure to steady state noise at or above 85dBA and exposure to impulse noise at or above 140 dBA.

**Significant Threshold Shift** (STS) – a change in the hearing greater than or equal to 10 dBA in either ear at the measured frequencies, relative to the reference audiogram.

## Rule 1702 . . . . . Montoring and Testing

1.0 Monitoring

When information indicates that any Teammate's exposure to noise may equal or exceed an 8-hour TWA of 85dBA Team Fishel shall implement a monitoring program to accurately assess the level of unwanted noise in a particular work environment or associated with aparticular task or function.

1.1 Monitoring shall be performed where likelihood of exposure is perceived to at or above the action level prescribed by OSHA 1910.95 (C)(2). Team Fishel may use representative personal noise sampling, as stated in OSHA 1910.95(d)(1)(ii), to comply with the monitoring requirements or may elect to use area sampling.

1.2 Monitoring instruments shall be calibrated to ensure accuracy.

1.3 Samples shall be taken to include a representative number of Teammates and a variety of locations to identify those classes of Teammates for inclusion in the program and to facilitate the selection of proper noise attenuators.

1.4 Sampling may be performed by trained Safety Coordinators. Results of all samples, area or personal monitoring, must be sent to the Safety Director for evaluation and recordkeeping.

1.5 Monitoring shall be repeated whenever there is a change in process, environment, or machinery that could increase noise exposure to the Teammates at or above the action level of 85dB or increase the number of Teammates exposed.

1.6 The Safety Director will inform each area of the sample results and the local Safety Coordinator will inform all Teammates who have or may be exposed at or above the action level.

1.7 Teammates shall be permitted to view the sampling process and to review any results.

2.0 Audiometric Testing

2.1 Team Fishel will make available an audiometric testing program for all Teammates whose noise exposure meets or exceeds the action level of 85dBA TWA.

2.1.1 All audiometric testing is performed at no expense to the Teammate.

2.1.2 All tests will be performed by a licensed certified audiologist, trained medical specialist, or certified technician.

2.1.3 Team Fishel will approve testing by a private physician only upon prior request to the Safety Director.

2.2 A baseline audiogram will be administered within 6 months of initial exposure at or above the action level.

2.2.1 Teammates scheduled for an audiogram must avoid high levels of non-occupational noise exposures and all workplace noise for 14 hours preceeding the test.

2.2.2 Hearing protection may be substituted for the 14-hour requirement when it is necessary for a Teammate to work during the period prior to his/her exam.

2.3 An annual audiogram shall be performed on every Teammate who has had a baseline exam.

2.3.1 Each annual exam shall be compared to the baseline exam to determine validity and to determine if a standard threshold shift in hearing levels has occurred.

2.3.2 An audiologist shall make the comparisons and determine a need for further action which may include a confirmation or additional test.

2.3.3 If an improvement occurs in the annual exam it may be substituted for the original baseline exam.

2.3.4 Allowances for normal age-related hearing decline can be made in the audiogram as per 1926.95 Appendix F.

2.4 A standard threshold shift in a Teammate's annual audiogram will be reported to the Teammate in writing within 21 days of the exam. The Teammate must be refitted for his existing attenuators or be re-evaluated for another type of hearing protection.

2.5 The Safety Director, upon consultation with the audiologist, may recommend further testing by a physician if an STS is deemed to have a medical basis or may be due to non-workplace factors. Any additional testing for this purpose is at no cost to the Teammate.

2.6 Once a Teammate has been identified as being exposed to the action level, whether he or she has had an audiogram or not, he/she must wear hearing protection as part of their normal PPE until such time as the audiogram can be completed or a change in work place can be affected.

2.7 Unless a physician determines that the STS is not work-related or further aggravated by workplace noise, Team Fishel will provide, fit, and train exposed Temmates in the selection and use of effective hearing protection or refit and retrain as necessary. See Rule 1703.

2.8 The Safety Director shall maintain all audiometric exams and related material.

**Rule 1703 . . . . . .Hearing Protection**

1.0 Team Fishel will select and provide appropriate hearing protection at no cost to the Teammates.

2.0 All Teammates exposed at or above the action level shall be provided with and wear hearing protection as part of their regular PPE.

- 2.1 Temmates experiencing an STS must be refitted to insure proper attenuation. All Teammates with a measured STS are required to wear hearing protection.
- 2.2 No Teammate may voluntarily discontinue the use of hearing attenuators once they remain exposed at or above the action level, regardless of whether or not they have experienced an STS or at any time prior to their baseline audiogram.

3.0 Teammates not exposed at the action level, as detemined by appropriate monitoring, may use any provided hearing protection on a voluntary basis. However, Team Fishel strongly advises the use of this PPE for all field and shopTeammates, regardless of the measured level of exposure.

4.0 The Safety Coordinator will select and provide a variety of hearing protection devices for each area. Such devices are to be readily available in the work area or where the Teammates gather to prepare for the work day. Replacement units should also be kept by Supervisors and Foremen and be readily available.

- 4.1 Hearing attenuators may be selected on the basis of comfort, ease of use, variety, and size, as long as the selected units are appropriate for the environment they will be used in and effectively reduce the noise to at least 90dBA or to 85 dBA for those who have experienced an STS.
- 4.2 Primary selection consideration shall be given to the effectivness of a selected type to reduce noise in a specific environment.
- 4.3 Hearing protectors shall be replaced as necessary and replacements shall be readily available both at the office and in the field.
- 4.4 Exposed Teammates shall be given the opportunity to select hearing protection from a variety of hearing protectors provided by Team Fishel.

5.0 The Safety Coordinator shall provide training in the selection, use, fitting, cleaning and replacemnet of all provided hearing protectors. The Coordinator shall supervise all initial fitting and monitor their correct usage.

6.0 The Safety Coordinator, Supervisors, and Area Managers shall ensure that hearing protection is correctly worn when required.

**Rule 1704 . . . . . Training and Recordkeeping**

1.0 The Safety Coordinator shall train each Teammate who is exposed at or above the action level with the requirements of this program..

2.0 Training shall be repeated annually for each Teammate in the Hearing Conservation Program and shall consider any changes in available protection and in changes to the work environment.

3.0 Training shall focus on:

- 3.1 the effects of noise on hearing,
- 3.2 the purpose, use, care and fitting of the various types of attenuators,
- 3.3 the purpose of audiometric testing,

3.4 the use of engineering controls to reduce workplace noise,

3.5 the employer's and the Teammates' responsibilities for the effectiveness of this program

4.0 Training shall be performed as part of a new Teammate's orientation if his or her work role might place them at risk, and as part of our normal tailgate training program throughout the year.

5.0 All training records, testing records, and monitoring sample records shall be maintained by the Safety Director and shall be available on request to the effected Teammate, former Teammate or his designee, or regulatory authorities.

6.0 Records shall be maintained in a manner and time consistent with 29 CFR 1910.95(m)(3).

6.1 Exposure monitoring records shall identify the instrument used, area surveyed, noise level in decibels, and affected Teammates. This record is to be kept for 2 years

6.2 Audiometric testing records shall indicate the test results for each Teammate, the test results per Teammate, tester's name, test date, instrument calibration date, test room background sound pressure level. This document shall be maintained for the length of employment.

## APPENDIX A:
## PERMISSIBLE NOISE EXPOSURES

| DURATION PER DAY, HOURS | SOUND LEVEL IN DECIBELS |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1-1.5 | 102 |
| 1 | 105 |
| 1/2 | 110 |
| 1/4 | 115 |

# APPENDIX B:
# TEAM FISHEL HEARING PROTECTION EQUIPMENT SUMMARY

Area _____ Office Location _____ Date _____

TYPE _____ BRAND _____

MODEL _____ NRR _____

# APPENDIX C:
# NOISE EXPOSURE MEASUREMENTS

Area _____ Test Equipment _____

Calibration Date _____

| Location | Work Activity | Exposure Level (dB) |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**Rule 1801** . . . . . **Subcontractor Management Plan**

**Appendix A** . . . . . **Post Mortem Sheet**

## Rule 1801 . . . . . Subcontractor Management Plan

This policy establishes standards and procedures to help Subcontractor(s) qualify, operate, and reflect on work to be performed, on going work, and completed operations.

1.0 Pre-Qualification & Safety Review

- 1.1 Subcontractor(s) are required to submit specific information prior to performing any work for Team Fishel. Documents/information include but are not limited to:
  - 1.1.1 Company OSHA Recordable Rate
  - 1.1.2 Company EMR compared to Industry EMR
  - 1.1.3 Subcontractor Master Agreement
  - 1.1.4 All valid Insurance requirements as defined by Article 12 of the Master Subcontract Agreement
- 1.2 Subcontractor(s) must submit all training documents for Team Fishel's review and approval, including all safety statistics for the last 3 year time period.

2.0 Subcontractor Safety Metrics

- 2.1 Fishel requires Subcontractor(s) to submit examples of safety metrics and/or all measures of Subcontractor's safety programs evaluations of efficiency and effectiveness. Records to be kept include but are not limited to:
  - 2.1.1 Maintaining an OSHA Recordable Injury and Illness Log for each project
  - 2.1.2 Incident reports of all accidents, injuries, or near misses which transpire on a job site, traveling to a job site, or within the scope of work corresponding to each project involving Fishel and Owner.
  - 2.1.3 Employee Training Records
  - 2.1.4 All permits, locates and documents relating to Fishel Project

3.0 Pre- Job Meetings and Safety Orientation

- 3.1 Once Subcontractor(s) have been granted/assigned work for Team Fishel and Customer, all relevant Subcontractor(s) management and Supervisory personnel shall attend a pre-job meeting to discuss job specific safety initiatives and will meet or exceed all of Team Fishel's safety policies and procedures as defined by the Team Fishel Safety Manual.
- 3.2 Subcontractor's employees who will work on a Team Fishel project will be required to complete Team Fishel's Safety Orientation program prior to beginning any fieldwork for the project.

4.0 Safety Tailgates, Analysis and Inspections

It is the responsibility of the subcontractor to provide a safety representative who will be responsible for obtaining to safety roles for the project.

- 4.1 Safety Coordinator, Supervisor, Foremen, or other approved Subcontractor representative shall hold a Tailgate training session at each job site each week.
  - 4.1.1 Subcontractor(s) must be able to show Competent Person training for representative who will be conducting Tailgates
  - 4.1.2 Competent Person training shall be made available to Team Fishel upon request.

4.2 Subcontractor(s) are responsible for providing relevant topics each week as well as notifying Team Fishel representative of meeting information including but not limited to:

4.2.1 Time

4.2.2 Location

4.2.3 Training methods

4.2.4 All safety topics applicable

4.3 Subcontractor(s) holds full responsibility in conductng inspections and analysis of safety practices and procedures on and off site.

4.3.1 Subcontractor(s) is responsible for conducting and documenting inspections and analysis along with providing documented corrective measures for issues found on inspections.

4.3.2 Inspection and analysis reports shall be made available to Fishel upon request.

5.0 Post Mortem Meetings and Analysis

5.1 Subcontractor(s) may be required to hold Post-Mortem meetings, for which they will look back and learn from the mistakes that occurred.

5.1.1 A Team Fishel Representative will be given timely notice of all information on Post-Mortem Meeting to ensure Team Fishel Rep.'s availability.

5.2 In the event a Team Fishel Representative does not attend a Subcontrator(s) led Post-Mortem, a checklist may be required to review thoughts and progress of Post-Mortem meeting. (Please see Appendix A: Post-Mortem Sheet)

# APPENDIX A:
# POST MORTEM SHEET

A Post Mortem Sheet is used by Subcontractors after an event has occurred that negatively impacted the productivity or safety of the Subs employees or any of Team Fishel's Teammates. This sheet should be filled out by a Team Fishel Representative, but in the event there is not one available, the Competent Person or Foremen of the Subcontractor should fulfill those duties.

Subcontractor: _____
(Print)

Topic for Post Mortem meeting: _____

Actions taken to fix/address problems: _____

_____

_____

_____

_____

Employees Signature(s):

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Team Fishel Representative:

_____ _____
(Sign) (Date)

Subcontractor's Representative:

_____ _____
(Sign) (Date)

Rule 1901 . . . . . Purpose and Scope
Rule 1902. . . . . General Safety Considerations
Rule 1903. . . . . Moving and Transporting
Rule 1904. . . . . Pre-Bore Activities
Rule 1905. . . . . Drilling Activities
Rule 1906. . . . . Product Placement and Handling
Rule 1907. . . . . Traffic Control, Restoration and Demobilization
Rule 1908. . . . . Jobsite Maintenance/Service Calls
Appendix A . . . . . Daily Safety and Operational Maintenance Repair Checklist

## Rule 1901 . . . . . Purpose and Scope

1.0 Purpose

The purpose of Team Fishel's Directional Drilling Safety policies and procedures is to provide guidelines that, when followed, will help engender a safe working environment for drill operators, locators, all on-site Teammates, subcontractors and the general public. In addition, this document provides sound safety advice and best practices that will serve as a reference for HDD jobsite safety and regulatory compliance through the identification of general practical guidance gathered from a variety of HDD technical resources, recognized experts and manufacturers resources, and from the collective experience of Fishel Teammates.

2.0 Definitions

**Inadvertent Return** – Drill fluid that escapes from an unplanned source along the bore path, usually as a result from a hydrofracture (frac out).

**Hydraulic Fracturing** – Hydrofracture or frac out - inadvertent loss of drill fluid caused by excessive net drilling fluid pressures on surrounding soils. Other causes can generate a frac out such as the presence of an old foundation or loose fill atop the bore path.

**Qualified Person** – A person who, by possession of a recognized degree or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve problems relating to the subject matter and work.

**Competent Person** – One who is capable of identifying existing and predictable hazards in surroundings or working conditions which are unsanitary, hazardous, or dangerous to a Teammate, and who has the authority to take prompt corrective measures to eliminate them.

**NRR** – Noise Reduction Rating is a unit of measurement used to determine the effectiveness of hearing protection devices to decrease sound exposure within a given working environment.

**NIOSH Exposure Limit (Noise)** – The NIOSH Recommended Exposure Limit (REL) for occupational noise exposure is 85 decibels, as an 8-hour time weighted average.

**OSHA PEL (Silica)** – The OSHA Silica Dust Permissible Exposure Limit allows an exposure of 50 micrograms per cubic meter of air within an 8 hour work day.

3.0 Scope

These procedures will provide a method by which all Fishel HDDs will be moved, transported, setup, pre-operationally tested, maintained, and operated and by which all Teammates involved in the HDD process will be selected and trained. These procedures shall be followed on all Team Fishel projects by all Teammates, subcontractors, subcontractor's employees, and any other persons, organizations, or contractors entering or operating horizontal directional drilling equipment on any Team Fishel job site or working within the immediate drill area or bore path. In addition to the guidelines presented in this section, all drills shall be operated in accordance with applicable state, local, and federal regulations, as well as manufacturer's guidelines.

This document is not intended to address the operational guidelines except as they may impact HDD safety and Teammates safety. Operational issues, including compatible tooling, mud mixtures/mixing, and reaming operations are addressed by each manufacturer guidelines. These guidelines must be followed to ensure an efficient and economical drilling operation.

This document does not intend to restate any applicable legal and regulatory requirements except to note that there may be overlapping guidelines to which we must adhere to be in full compliance.

4.0 Industry Compliance Requirements

The criteria and standards for the safe operation of directional drills shall include the following:

4.1 Manufacturer's recommendations and requirements

4.2 State and local One-Call laws (Section 10 Appendix A)

4.3 Team Fishel Utility Locating Procedure (Section 10)

4.4 Occupational Safety and Health Administration (OSHA) for Excavation and utility identification.

4.5 State EPA regulations for containment and disposal of spoils and drill fluids.

4.6 MUTCD Current Edition

5.0 Responsibilities

5.1 Team Fishel

5.1.1 The designated project Supervisor shall be responsible for planning and utilizing each drill in accordance with accepted operational compliance guidelines and within the confines of safe operating procedures outlined in this document and in other safety-related material. All Teammates have complete authority and a duty to cease any activity or operation that does not comply with the safety guidelines of this manual and these policies and procedures. Upon notification of any safety deficiency, the Supervisor will discuss a plan of action with the drill Foreman to eliminate the safety deficiency, document the corrective action on the JHA, and counsel the affected Teammates prior to resuming drill operations.

5.1.2 Drill Foremen and/or operators shall be responsible for ensuring that all safety regulations and guidelines are adhered to while on the jobsite and while operating any HDD asset. Any operational deficiencies or breach of safety protocol will be addressed immediately, documented on the JHA, and any and all corrective actions taken prior to resuming operations. Teammates must be counseled concerning correct procedures and sanctioned as necessary to prevent further incidents and to ensure proper understanding of safe procedures.

5.1.3 HDD operations fall under the OSHA guidelines for excavation – 29 CFR 1926.650. The Supervisor, Foreman, locator, and the drill operator shall successfully complete a Team Fishel approved Competent Person training class prior to performing any HDD operations.

5.1.4 Drill operators and locators must be carefully and completely trained in the operations of the specific unit they are working with. An operator manual shall be on board the unit during operation and the drill team shall be familiar with the location of all operating and diagnostic codes.

5.2 Subcontractors

5.2.1 Each subcontractor of Team Fishel shall comply with this safety manual and these policies and procedures. The subcontractor shall ensure that each item requiring corrective action is corrected prior to resuming drill activities. The subcontractor shall ensure that the drill and its crew are working within the guidelines set forth by the governing authorities and Team Fishel at all times. Any delays or down time due to the determination or correction of any safety deficiency shall be at the subcontractor's expense.

## Rule 1902 . . . . . General Safety Considerations

1.0 Project Planning and Design

Proper advance planning is essential to efficient and safe drill operations and should be documented far in advance of any active field operations. Many aspects of this planning will accompany the bid process but others are performed after the bid is successful and still others will be part of the day-to-day operations. The more thorough the pre-job evaluation process is, the greater the success of the project. When unexpected issues arise from poor planning or revisions to the scope of the project it is absolutely essential to revisit this process to ensure project safety.

1.1 Determine the performance and design criteria for the project. This will help determine the type and size drill asset needed to install the product in the anticipated conditions.

1.2 Examine drawings for surface features, obstacles, existing utilities, storage and setup areas, parking areas, traffic patterns, width of ROW, etc. This will aid in the establishment of a suitable traffic-control plan, emergency routes, selection of staging areas and orientation of the workflow, and help to reduce any unfavorable impact on local residents and businesses.

1.3 Investigate subsurface features. Soil surveys or other geotechnical data should be consulted to aid in the selection of the appropriate drill or excavation asset. This will be essential to the plan when it is determined that the soil conditions favor one method of installation over another or when the type of soil lends itself to one type of drill over another. This will also assist in the selection of an appropriate drill fluid mixture or additive.

1.4 Identify permit requirements and the time necessary to fulfill permitting obligations prior to commencing work.

1.5 Identify potential environmental impacts. Select a dump location well in advance of operations and secure the necessary leases before construction begins. Many localities have very strict rules regarding disposal of spoils and drill mud even from inadvertent returns. Local environmental guidelines should be known prior to the start of drilling.

1.6 Determine the location and rules for obtaining water resources. Water is most often obtained from fire hydrants but will usually also involve some local permitting or advance payment method to insure uninterrupted service for this vital resource. Testing the local water for ph levels or obtaining this data from the local water company can determine the need to add a component to balance the ph in advance of drilling.

1.7 Determine where local emergency services are located and provide the Competent Person with a list of these resources and their general location relative to the work location(s).

1.8 Investigate the entire route of construction and visually document the conditions that exist prior to our construction activities. This should include any sidewalks, driveways and streets as well as any civil structures such as fences, retaining walls, curbs, etc. Any cracks or defects should be carefully documented on film (video or still photography). Also look for any landscaped areas and any vegetation along the route that shows signs of distress. Careful documentation before work starts can save us considerable time and expense after we are done.

1.9 Lay the ground rules for the nature and scope of daily jobsite planning sessions.

2.0 Utility Locating Procedures

2.1 Team Fishel requires strict adherence to the Utility Locating Procedure in Section 10 of this manual.

2.2 Determine who is responsible for fulfilling the one-call requirements of the various utilities and make prior contact with them. A good working relationship with the locator is vital to an efficient operation. Always document your personal contact with the one-call service to insure legality of any services performed.

2.3 Subcontractors who are not directly supervised by a Team Fishel Competent Person shall make and document their own locates per the one-call laws of the state they are operating in. Subcontractors shall not work off of our locate requests or vice-versa.

2.4 Carefully and completely document all damage-related incidents per Team Fishel policy. Teammate counseling forms shall accompany any damage document when such is required or issued. Drug and alcohol testing protocol shall be followed as per Team Fishel guidelines.

2.5 Careful visual inspection of the drill path is vital to a successful bore. The Competent Person should examine all utilities in and adjacent to the bore path and document the depths of sewers, water and gas valves, valve and pipe clearances, utilities that may cause interference with the transmitting tools, any private utilities that do not participate in the one-call process, and homeowner utilities.

2.5.1 Ensure proper clearance of any overhead utilities.

3.0 Personal Protective Equipment

3.1 In addition to your standard PPE, the PPE requirements for the directional drill are as follows:

3.1.1 Dielectric gloves, leather glove protectors and canvas storage bag. These shall be tested daily in the field. An independent testing lab must test gloves at 6-month intervals. The gloves are tested for integrity, certified as safe, cleaned and returned. An additional pair should be available during this test period so operations are not halted. Rubber insulating gloves must be tested before first issue and every six months thereafter; and also upon indication that insulating value is suspect. Example would be a pinch, chemical, burn or flash..

3.1.2 Rubber Gloves shall be worn when the electrical sensing stakes are driven into the ground. Teammates should remain clear of the drill while the stabilizers are driven in.

3.1.3 Dielectric boots, or leather work boots with an electrical hazard rating of 15Kv (Red Wing boots will contain an “EH” on the identification tag that certifies the electrical hazard rating of their boots.). Dielectric boots should be periodically inspected for unusual wear or cuts. When the integrity of the boot is compromised they must be immediately removed from service and replaced. EH rating footwear should be inspected and removed immediately if deterioration is noticed on the sole. If exposed to wet or humid environments or both EH rated boot are not to be worn without and overshoe.

3.2.4 At a minimum, Class 2 dielectric gloves shall also be worn when touching any attached components to the drill including but not limited to mud system, rods, and water truck while attached to the drill when the rods are inserted into the ground when electric utilities are present within 3’ of the drill path. See Section 10, Rule 1002 (2.2) for Utilities with higher voltage systems.

3.2 Recommended additional PPE is as follows:

3.2.1 3.3.1 Hearing Protection at sufficient NRR (Noise Reduction Rating) rating to minimize drill noise to a level below the NIOSH Exposure Limit but not to eliminate or compromise the ability to hear verbal commands or impede the ability to hear radio communications.

3.2.2 Solar protection in the form of a sufficient sunscreen product applied directly to the exposed skin or by using a sun-shading device attached to the drill.

## Rule 1903 . . . . . Moving and Transporting

1.0 Directional drills should be moved and positioned by a qualified person. This is true both when loading and unloading the drill for transport, and when positioning the drill for the work setup. Moving a drill without sufficient training and experience can be very dangerous.

- 1.1 Drills are driven by levers in the rear of the machine or by a remote control device that powers the propulsion tracks. Each track has a separate lever, switch, or control that can move the tracks in opposite directions to make the drill turn or in the same direction to move the drill forward or backward.
- 1.2 Bystanders and fellow Teammates should remain clear of the loading or movement area, especially the low side if movement occurs on a slope or uneven terrain.
- 1.3 Most drills have a narrow profile relative to their length and height and can be much less stable than other pieces of heavy equipment. Some smaller drill units have a mechanism to extend the tracks laterally, or outward, and so provide a wider profile when moving on uneven terrain. Care should be taken to insure the drills maximum stability prior to moving or positioning. Rods should always be on the uphill side when possible.
- 1.4 Once maneuvered into place at the work site the drill stabilizers should be set to provide a level platform and anchored to the ground to eliminate movement.
- 1.5 All movements related to traveling and maneuvering should proceed at the lowest possible speed and the operator should be prepared to stop at any sign of tipping or instability.
- 1.6 Movement on lawns and landscaped area may require the use of timber or plywood to prevent tracks from damaging some surfaces. Plan for this in advance by making prior contact with homeowners or property managers.

2.0 Loading a drill for transport poses a number of hazards for the qualified person. Prior to moving a drill onto or off of a trailer the operator must:

- 2.1 Make sure the trailer is on level ground and is attached to the towing unit.
- 2.2 Ensure the brakes are set and the wheels are fully chocked or blocked.
- 2.3 Ensure the decking and ramps are free from dirt, moisture such as ice or snow, and debris that could impede the track movement.
- 2.4 Operate in low gear at the lowest possible speed.
- 2.5 Line the drill unit up with the trailer ramps and drive the unit straight onto the trailer deck and position the drill so that the weight is evenly distributed over the trailer axles. Most drill units will weigh in excess of 20,000 pounds. Rods can add another 4,000 to 5,000 pounds. DOT allows only 17,000 pounds per axle on a 20-ton trailer. Careful positioning and securing is a must. It may also be necessary to weigh the unit and reposition the drill prior to getting on the road.
- 2.6 Lower the stabilizers to the trailer deck and lower the drill frame.
- 2.7 Set parking brake.
- 2.8 Tether the drill unit to the trailer by four direct tie-downs that will prevent movement in all directions and that will meet the working load limits of transport chains. Additional information on chain capacities is located in section 393.108 of the Federal Motor Carrier Safety Regulations.

2.9 Ensure that all rods are in the storage rack and that no rods are left loose in the carriage during transport. Loose tooling should be strapped to the deck or stowed prior to transport.

2.10 Ensure that the glove bag is removed from the drill and safely stowed prior to transport.

3.0 Drills should be off-loaded in a manner similar to loading. A trained operator working at low speeds in a clean and relatively level work area will help ensure safety. Vermeer units require the operator to stand at the rear of the machine to access the control levers. Such a configuration can put the operator at considerable risk if the unit slips on muddy ramps or if power to one of the tracks is interrupted. There is a balance point on each unit when the drills weight shifts from resting primarily on the deck to primarily on the ramps, ramp or vice versa. This is the most critical point in the loading process and should proceed with great caution.

## Rule 1904 . . . . . Pre-Bore Activities

1.0 Drill Setup and Inspection

1.1 The drill should be set up on a firm level section of the job in a manner that will provide maximum efficiency for the installation process, the traffic control plan, and the ease of access to attendant vehicles and Teammates involved in the work processes.

1.2 Stabilizers should be lowered into place and the anchoring system engaged. This activity should be done from the platform and no Teammate should be in contact with the drill during this operation.

1.3 A ground rod shall be connected to the drill and installed at least 6 feet away from the drill and the drill path if anchors can not be fully inserted to full depth.

1.4 The electrical sensing stake shall be driven in at a distance of at least 6 feet from the drill and the drill path. Teammates setting this stake shall be wearing dielectric gloves to minimize injury from an electrical strike.

1.5 The entry pit may be dug at this point and the drill string assembled. The entry pit and the drill string should be safeguarded or barricaded so that Teammates and bystanders have no access to the open pit and rotating parts. Safeguarding may be done with a physical barrier such as snow fencing, cone bars, or movable traffic barricades, or it may be done with a visual barrier such as caution tape and cones.

1.5.1 The Competent Person should make an informed decision based on the location of the site and the relative proximity to, and volume of pedestrian traffic.

1.5.2 Pits may be dug by hand or with mechanized equipment following the OSHA guidelines for excavation (29 CFR `1926.650). Spoils must be removed to a distance of 2 feet regardless of our intent to enter the pit or not.

1.5.3 Pits at the entry and exit points should be of sufficient size to handle the anticipated amount of fluid return. Vacuum units should be on standby to remove the returned fluid.

1.5.4 Ensure Teammates are not inside the equipment's Red Zone during operation.

1.5.5 Protect the locate marks in the drill setup and pit area.

1.6 The strike alarm shall be tested to insure the system is operable in the event of a strike.

1.6.1 The strike alarm does not prevent an electrical strike. Once the alarms sounds the strike has already occurred and the drill is energized.

1.6.2 Operators should test the strike alarm prior to inserting a drill rod into the ground. Operators must consult the equipment manual to fully understand and test the Strike Sensor of the unit they are operating. Specifications and testing are specific to the unit and the manufacturer.

1.7 The operator shall inspect all gauges and instruments per the manufacturer's recommendations and test all communication devices for function.

1.8 The locator shall calibrate the transmitter and receiver as per the manufacturer's instructions and document this activity on the Daily Excavation Checklist.

1.9 The drill team shall perform a daily maintenance check on the drill unit prior to boring.

1.10 The drill team shall complete the directional drill section found on the JHA daily prior to boring.

1.11 Carefully establish a safe work zone that allows room for the drill support crews to gain easy access to the drill area.

1.12 Remove all unnecessary tooling, material, equipment, and spoils from the immediate work area and store in an appropriate place. This will help reduce the potential for a slip and fall hazard.

1.13 Drill operator and drill locator shall perform a walkover inspection for each drill shot. Inspections will focus on operational concerns such as depth and direction, but care shall be given to: potential obstructions, utility crossings, signal conflicts from traffic loops, etc.

1.13.1 Potential underground obstructions

1.13.2 Utility conflicts either as a crossing conflict or parallel conflicts.

1.13.3 Surface features that are potential fracture zones.

1.13.4 Street and driveway crossings that will require traffic control.

1.13.5 Areas of potential locator signal interference. This can be done by walking the bore path with the locator turned on but the transmitter turned off to check for areas of signal strength deviation. The operator may need to consult the operating manual or the manufacturer to arrive at a corrective action prior to drilling.

2.0 Crossing over or under utilities

Visually check the drill head as it passes through potholes, entrances, and exit pits.

- There should be a minimum clearance of 24 inches between the drill head and the existing utility lines.
- If the depth indicated by the locating device is too low and the drill head does not appear in the pothole, stop boring until the hole can be hand excavated further to maintain a visual inspection of the drill head.
- Teammates shall watch drill head pass by the utility during drilling operations and also during pullback, make sure sufficient clearance is maintained between the bore path and any underground utility lines.

## Rule 1905 . . . . . Drilling Activities

1.0 Rotating Parts

1.1 Bystanders and Teammates who may be working near the drill must remain clear of the rotating drill parts at all times. Loose clothing can become snagged on the rotating parts, which can lead to a serious injury or fatality.

1.2 Drilling shall stop when a Teammate enters the perimeter area of the rotating stem. Activities may not continue until the area is clear.

2.0 Inadvertent Returns

2.1 Frac Pits shall be dug as necessary to handle any inadvertent fluid returns in or around the bore path. Pits shall be of sufficient size to handle returned drill fluid and vacuum equipment shall be used to remove the fluids to a dump location.

2.2 Vacuum units of 500 –1000 gallons are typically used to remove drill fluids. These are normally tow-behind units that, when empty, present no special risk or challenge to a driver. When full these units can carry an extra 2-4 tons of weight. Consideration shall be given to adding supplemental braking to these units and to training each driver in the function and operation of trailer braking components.

2.3 Drilling fluid is 97% water with an additional small percentage of Bentonite, a naturally occurring clay mineral. The fluid is mostly a non-toxic benign fluid but an inadvertent return can be detrimental and should be reduced or eliminated through design and practice where possible.

2.4 Surface heaving or humping often accompany a hydrofracture although there are generally other causes for this problem. The Competent Person shall carefully monitor the bore path for signs of humping and be prepared to cease drilling and affect repairs as soon as this condition is noticed.

3.0 Utility Strikes

A utility strike is never intentional and poses a serious risk to the health and safety of our Teammates and to the profitability of the bore job. Cross boring a gas or electric line through a non-metallic sewer main or lateral may not be detected for years, often with catastrophic consequences. Considerable care is given to our locating policy and we insist it be followed as a vital component of the damage prevention program at Team Fishel.

3.1 One-call regulations require that a pothole remain open until the drill and the reamer have safely passed under or over the potholed utility. When this is not done an Area Manager will need to authorize closing the pothole and document the reasons.

3.2 If a utility strike occurs, whether from contact with an unidentified utility or from an unplanned contact on pullback, stop the bore process immediately and follow the Team Fishel guidelines as outlined in the Utility Locate Procedure (ULP) in Section 10 of this manual.

3.3 If a gas line is struck the area must be evacuated immediately. The drill operator shall shut the engine down and not attempt to break contact with the struck line as a static spark can cause ignition. Contact the appropriate personnel as outlined in the ULP.

3.4 Fiber, telephone, coax strikes shall be called in per the ULP protocol.

3.5 Water and sewer strikes can create considerable mess and may necessitate the rerouting of an existing traffic pattern. Cross boring through an unlocated or unlocatable sewer line or lateral can pose serious risks at a later date. Great care shall be exercised when digging across or near sewer lines.

3.6 Electrical Strikes

3.6.1 If the strike alarm sounds, the drill has already struck an energized line and the workers in the drill path and on the drill should not move.

3.6.2 Quickly stop all drill motion. This will connect the drill string to a “hard” ground forcing as much power as possible through the grounding system.

3.6.3 Immediately warn other Teammates and workers to remain clear of the bore path and machine or to remain motionless. The voltage difference between a person’s feet may be of sufficient strength to cause injury or death.

3.6.4 The operator should attempt to disengage the pipe from the cable by reversing the advance. After trying to disengage the stem the operator shall push the strike alarm button. If the alarm sounds again the machine is still energized.

3.6.5 If the strike alarm does not sound but the warning lights on the strike alarm remain on it must be assumed that the drill is still engaged with the power cable. And the operator should not move from the operating position until the utility company turns off the power or provides an all clear.

3.6.6 Never disable a strike alarm that is sounding.

3.6.7 When all clear, carefully document all relevant information of the damage and the locate marks on the JHA.

3.7 Tool Joints and Down-Hole Tooling

3.7.1 Use only the appropriate breakout wrenches or quick connect tools provided by the manufacturer for making and breaking pipe joints. Do not use the machine’s torque or a backhoe to apply pressure to break tool joints.

3.7.2 The drill must not be operated while pipe maintenance or tool changes are being performed. Positive communication with the drill operator is imperative.

3.7.3 Proper Lockout/Tagout must be in place prior to tooling changes.

3.7.4 Never over-torque the pipe or tool joints during makeup.

## Rule 1906 . . . . . Product Placement and Transportation

1.0 Careful consideration and planning shall be given to the transportation, location, handling, and placement of all customer product used in the drilling operation.

2.0 Reel carts/trailers shall have collars to prevent reels from shifting side to side.

3.0 Forklift operations and requirements are covered in Team Fishel Safety Manual, Section 13, Rules 1302-1317.

4.0 Material handling rules are covered as part of the Forklift rules.

5.0 Cable Reel and cable trailers are covered under the Team Fishel Safety Manual, Section 13 Rules 1324.

## Rule 1907 . . . . . Traffic Control, Restoration and Demobilization

1.0 All spoils and scrap must be cleaned from the site and properly disposed of as part of the restoration process. Restoration of the drill site, fracture areas, product placement site, entry and exit pits, and any parking areas shall proceed as per contract requirements.

2.0 Prior to mobilization/demobilization all parts of the drill shall be cleaned of any loose mud/debris.

3.0 See Section 2 (Rule 206) for additional information on Traffic Control.

4.0 The finished Fishel work site should be returned to like or better condition.

## Rule 1908 . . . . . Jobsite Maintenance/Service Calls

When repairs are to be made on the jobsite while a drill rig has already entered the earth the following steps should be followed.

1.0 Rods, augers/stabilizers must be disconnected from the drill rig when possible prior to attempting repairs.

1.1 If disconnection cannot be made, follow steps in Appendix B.

# APPENDIX A:
# DAILY SAFETY AND OPERATIONAL MAINTENANCE REPAIR CHECKLIST

- ☐ Review, sign and update JHA accordingly.
- ☐ After Hours work shall require a call to the bore crew foreman, operator or locator. Work shall not proceed until contact has been made with the bore team.
- ☐ Site walk shall be completed to identify and mitigate potential hazards.
- ☐ Rubber gloves and EH rated boots are required while making contact with the drill until disconnections have been completed and potential electrical hazards have been mitigated.
- ☐ Perform strike alarm self-test
- ☐ LOTO drill functions
- ☐ Perform repairs then communicate status to the drill team.

Rule 2001. . . . . Purpose
Rule 2002 . . . . . Exposure Assessment and Monitoring
Rule 2003 . . . . . Medical Surveillance
Rule 2004 . . . . . Training Records
Rule 2005 . . . . . Competent Person Requirements
Rule 2006 . . . . . Regulated areas
Rule 2007 . . . . . Communication of Hazards
Rule 2008 . . . . . Methods of Compliance
Rule 2009 . . . . . .Respiratory Protection
Rule 2010. . . . . Protective Clothing
Rule 2011 . . . . . .Hygiene Facilities and Practices for Teammates
Rule 2012. . . . . .Housekeeping

**Rule 2001. . . . . Purpose**

*NOTE: All regulation references are to 29 CFR 1926.1101 unless otherwise stated.*

1.0 The purpose of this program is to inform interested persons, including Teammates, that Team Fishel is complying with OSHA's asbestos standard, Title 29 Code of Federal Regulations 1926.1101 by ensuring that:

1.1 No Teammate is exposed to an airborne concentration of asbestos in excess of 0.1 f/cc (fibers per cubic centimeter of air) as an eight-hour time-weighted average (TWA).

1.2 No Teammate is exposed to an airborne concentration of asbestos in excess of 1.0 f/cc (excursion limit) as averaged over a sampling period of 30 minutes.

1.3 We assess all asbestos operations for their potential to generate airborne fibers.

1.4 Our designated Competent Person conducts an initial exposure assessment immediately before or at the initiation of an operation to document expected exposures, and that the assessment is completed in time to comply with requirements triggered by exposure data or the lack of a "negative exposure assessment."

1.5 We perform periodic monitoring and additional monitoring when required.

1.6 When required, we implement a medical surveillance program for all Teammates when for a combined total of 30 or more days per year engage in Class I, II, or III work or are exposed at or above the PEL, or when Teammates are required to wear negative-pressure respirators.

1.7 We maintain objective data, monitoring, medical surveillance, training, and building owner notification records when required and for the time periods indicated in the asbestos rule.

1.8 Our asbestos competent person is qualified, authorized, and has the proper training to ensure worker safety and health as required by 29 CFR1926.20.

1.9 Our respirator program is in place and in accordance with 29 CFR 1910.134(b) through (d) (except (d)(1)(iii)), and (f) through (m).

1.10 Our Class I, II, and III asbestos work, and all other operations where airborne concentrations of asbestos exceed or there is a possibility they may exceed a PEL, are conducted within regulated areas. Our regulated areas comply with 29 1926.1101(e)(2) - (5).

1.11 We understand that the communication of asbestos hazards is vital to prevent further overexposure and that we have specific duties under the asbestos rule to communicate those hazards through written notifications, signs, labels and Teammate information and training.

1.12 Our specific methods of compliance with the PEL and STEL are based on the regulation. We understand there are compliance methods that are required for most jobs, required for all jobs when exposure exceeds the PEL, and methods that are prohibited on all jobs. We also understand that most, but not all, asbestos jobs fall into one of the Class I - IV categories. For example, the installation of new asbestos-containing products does not carry a class designation.

1.13 On multi-employer worksites, we will: (1) inform other employers on the site of the nature of our work, (2) relay information of the existence of regulated areas, and (3) take correct measures to ensure Teammates of other employers are not exposed to asbestos.

1.14 This program applies to all construction work where one of our Teammates may be occupationally exposed to asbestos. All work related to construction, alteration, or repair, including painting and decorating, is included. The program coordinator/ manager is responsible for its implementation. Copies of the written program may be obtained at your local office or at corporate office.

**Rule 2002 . . . . . .Exposure Assessment and Monitoring**

1.0 Initial Exposure Assessment:

1.1 We understand we are required to evaluate all asbestos operations (some exceptions exist only when we are involved in Class IV work) for the purpose of predicting whether exposure levels during the planned asbestos work can be expected to exceed the PELs, and thus whether additional monitoring, and other precautions are required.

1.2 Our Competent Person (see section below) will conduct all initial exposure assessments.

1.3 In a Class I operation, we will presume that our Teammates are exposed in excess of the TWA and excursion limit and implement the necessary protective measures, until we conduct exposure monitoring and determine that workers will not be exposed in excess of the PELs, or make a negative exposure assessment.

1.4 The initial exposure assessment requirement can be satisfied by two methods:

- A negative exposure assessment demonstrating that the activity involving the asbestos material is unlikely under all foreseeable conditions to result in concentration above the PEL (1926.1101(f)(2)(iii)).
- Initial exposure monitoring determined from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each Teammate conducted pursuant to.1101(f)(1)(iii).

2.0 Periodic Monitoring

2.1 Team Fishel complies with OSHA requirements for periodic monitoring.

3.0 Teammate Notification

3.1 We notify Teammates in writing, personally or by posting at a central location, the monitoring results as soon as possible but no later than five working days following receipt of those results.

**Rule 2003 . . . . . Medical Surveillance**

1.0 We institute a medical surveillance program for all Teammates who for a combined total of 30 or more days per year are engaged in Class I, II, and III work or are exposed at or above the PEL.

2.0 When our Teammates are required by the standard to wear a negative pressure respirator, we make sure those Teammates are physically able to perform the work and use the equipment as determined by a physician.

2.1 We ensure that all medical examinations and procedures are performed by or under the supervision of a licensed physician, and are provided at no cost to the Teammate and at a reasonable time and place.

3.0 Medical examinations and consultations

3.1 We make available medical examinations and consultations to each Teammate as required by and in accordance with 29 CFR 1926.1101(m):

- Prior to assignment of the Teammate to an area where negative-pressure respirators are worn.
- When our Teammate is assigned to an area where exposure to asbestos may be at or above the PEL for 30 or more days per year, or engage in Class I, II, or III work for a combined total of 30 or more days per year, a medical examination must be given within 10 working days following the thirtieth day of exposure; and at least annually thereafter.

3.2 We provide the following information to the examining physician:

- A copy of the asbestos standard.
- A description of affected Teammates' duties as they relate to their exposure.
- The Teammates' representative exposure level or anticipated exposure level.
- A description of any personal protective and respiratory equipment used or to be used.
- Information from previous medical examinations that is not otherwise available to the examining physician.

4.0. Physician's written opinion

4.1 The written opinion we receive from the examining physician containing the results of the medical examination includes:

- Whether our Teammate has any detected medical conditions that would place him or her at an increased risk of material health impairment from exposure to asbestos.
- Recommended limitations on the Teammate or on the use of personal protective equipment such as respirators.
- A statement that the Teammate has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
- A statement that the Teammate has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.
- We instruct the physician not to reveal in the written opinion given to the employer, specific findings or diagnoses unrelated to occupational exposure to asbestos.
- We provide a copy of the physician's written opinion to the affected Teammate within 30 days from its receipt.

5.0 Recordkeeping-Objective Data

5.1 Where we rely on objective data that demonstrates that products made from or containing asbestos or the activity involving such products or material are not capable of releasing fibers of asbestos in concentrations at or above the permissible exposure limit and/or excursion limit under the expected conditions of processing, use, or handling to satisfy the requirements of 29 CFR 1926.1101(f), we establish and maintain an accurate record of objective data reasonably relied upon in support of the exemption. The record includes at least the following information:

- The product qualifying for exemption.
- The source of the objective data.
- The testing protocol, results of testing, and/or analysis of the material for the release of asbestos.
- A description of the operation exempted and how the data support the exemption.
- Other data relevant to the operations, materials, processing, or Teammate exposures covered by the exemption.

5.2 We maintain this record for the duration of the employer's reliance upon such objective data.

6.0 Exposure Measurements

6.1 We keep an accurate record of all measurements taken to monitor Teammate exposure to asbestos as prescribed at 29 CFR 1926.1101(f).

*Note: We may utilize the services of competent organizations such as industry trade associations to maintain the records required by this section.*

6.2 This record includes at least the following information:

- The date of measurement.
- The operation involving exposure to asbestos that is being monitored.
- Sampling and analytical methods used and evidence of their accuracy.
- Number, duration, and results of samples taken.
- Type of protective devices worn, if any.
- Name, social security number, and exposure of the Teammates whose exposures are represented.

We will maintain this record for at least thirty (30) years, in accordance with 29 CFR 1910.1020.

7.0 Medical Surveillance

7.1 We have established and do maintain an accurate record for each Teammate subject to medical surveillance under 29 CFR 1926.1101(m), in accordance with 29 CFR 1910.1020.

- The record includes at least the following information:
- The name and social security number of the Teammate.
- A copy of the Teammate's medical examination results, including the medical history, questionnaire responses, results of any tests, and physician's recommendations.
- Physician's written opinions.
- Any Teammate medical complaints related to exposure to asbestos.
- A copy of the information provided to the physician as required by paragraph (m) of this section.

7.2 We make sure that this record is maintained for the duration of employment plus thirty (30) years, in accordance with 29 CFR 1910.1020.

## Rule 2004 . . . . . Training Records

1.0 We keep all Teammate training records for one (1) year beyond the last date of employment by this company.

1.1 We will, upon request, make all training records readily available.

2.0 All Teammates must participate in an asbestos awareness program when their job classification can come into contact with asbestos containing materials.

3.0 Data to Rebut Presumed Asbestos Containing-Material (PACM)

3.1 Where the building owner and we have relied on data to demonstrate that PACM is not asbestos-containing, we maintain such data for as long as they are relied upon to rebut the presumption.

4.0 Records of Required Notifications

4.1 Where the building owner has communicated and received information concerning the identification, location and quantity of ACM and PACM, we ensure that written records of such notifications and their content are maintained by the building owner for the duration of ownership and then transferred to successive owners of such buildings/facilities.

5.0 Availability

5.1 We will, upon written request, make all records required to be maintained by this section available to the Assistant Secretary and the Director for examination and copying.

5.2 We will, upon request, make any exposure records required by paragraphs (f) and (n) of the asbestos rule available for examination and copying to affected Teammates, former Teammates, designated representatives, and the Assistant Secretary, in accordance with 29 CFR 1910.1020(a) through (e) and (g) through (i).

5.3 We will, upon request, make Teammate medical records required by paragraphs (m) and (n) of this section available for examination and copying to the subject Teammate, anyone having the specific written consent of the subject Teammate, and the Assistant Secretary, in accordance with 29 CFR 1910.1020.

6.0 Transfer of Records

6.1 We comply with the requirements concerning transfer of records set forth in 29 CFR 1910.1020 (h). If we ever cease to do business and there is no successor employer to receive and retain the records for the prescribed period, we shall notify the Director at least 90 days prior to disposal and, upon request, transmit them to the Director.

## Rule 2005 . . . . . Competent Person Requirements

1.0 At the construction worksite covered by this plan, we have designated a Competent Person, having the qualifications and authorities for ensuring worker safety and health required by Subpart C, General Safety and Health Provisions for Construction (29 CFR 1926.20 through 1926.32).

2.0 Required Inspections by the Competent Person:

- Section 1926.20(b)(2) requires frequent and regular inspections of job sites, materials, and equipment to be made by Competent Persons. We recognize and follow this requirement. We log these inspections and maintain the logs as records.

3.0 Additional Inspections:

3.1 In addition, our Competent Person makes frequent and regular inspections of the job sites to perform or supervise the duties listed below.

3.2 For Class I jobs, on-site inspections are made at least once during each work shift, and at any time a Teammate requests one.

3.3 For Class II, III, and IV jobs, on-site inspections are made at intervals sufficient to assess whether conditions have changed, and at any reasonable time a Teammate requests.

3.4 On all worksites where our Teammates are engaged in Class I or II asbestos work, our Competent Person will perform or supervise the following duties, as applicable:

- Set up the regulated area, enclosure, or other containment.
- Ensure (by on-site inspection) the integrity of the enclosure or containment.
- Set up procedures to control entry to and exit from the enclosure and/or area.
- Supervise all Teammate exposure monitoring required by this section and ensure that it is conducted as required by paragraph (f) of this section.
- Ensure that Teammates working within the enclosure and/or using glove bags wear respirators and protective clothing as required by paragraphs (h) and (i) of this section.
- Ensure through on-site supervision, that Teammates set up, use, and remove engineering controls, use work practices and personal protective equipment in compliance with all requirements.
- Ensure that Teammates use the hygiene facilities and observe the decontamination procedures specified in 29 CFR 1926.1101(j).
- Ensure that through on-site inspection, engineering controls are functioning properly and Teammates are using proper work practices.
- Ensure that notification requirements in paragraph 29 CFR 1926.1101(k) of this section are met.
- If there is an inability to control asbestos contaminants in a multi-employer atmosphere, the Competent Person must remove teammates from the area until it is contained and levels of asbestos are not present or a very minimal level.

4.0 Competent Person Training

4.1 Our Competent Person has received the following training for Classes I and II asbestos work:

4.1.1 All aspects of asbestos removal and handling, including: abatement, installation, removal and handling.

4.1.2 The contents of the asbestos rule.

4.1.3 The identification of asbestos.

4.1.4 Removal procedures where appropriate.

4.1.5 Other practices for reducing the hazard.

4.2 Our Competent Person was trained in a comprehensive course for Supervisors that meets the criteria of EPA's Model Accredited Plan such as a course conducted by an EPA-approved or state-approved training provider, certified by EPA or a state or a course equivalent in stringency, content, and length.

4.3 Our Competent Person has received the following training for Classes III and IV asbestos work:

4.3.1 Aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags and mini- enclosures.

4.3.2 Practices for reducing asbestos exposures.

4.3.3 Use of wet methods.

4.3.4 The contents of this standard.

4.3.5 The identification of asbestos.

4.4 This training includes successful completion of a course that is consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2), or its equivalent in stringency, content, and length. Competent Persons for Class III and IV work, may also be trained per the requirements of 29 CFR 1926.1101(o)(4)(i).

## Rule 2006 . . . . . Regulated areas

1.0 Other operations, where airborne concentrations of asbestos exceed or there is a reasonable possibility they may exceed a PEL, are conducted within a regulated area. Our regulated areas comply with 29 CFR 1926.1101(e)(2), (3), (4) and (5).

2.0 Demarcation:

2.1 The regulated area is demarcated in a manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne asbestos. When critical barriers or negative pressure enclosures are used, they may demarcate the regulated area. Warning signs are posted in accordance with the requirements of 29 CFR 1926.1101(k)(7).

3.0 Access:

3.1 Access to regulated areas is limited to authorized persons and to persons authorized by the OshAct or federal regulations.

4.0 Respirators:

4.1 All persons entering a regulated area where Teammates are required to wear respirators are supplied with a respirator selected in accordance with 29 CFR 1926.1101(h)(3).

5.0 Prohibited Activities:

5.1 We make sure that our Teammates do not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in a regulated area.

6.0 Competent Persons:

6.1 Our Competent Person will supervise all asbestos work performed within regulated areas.

## Rule 2007 . . . . . Communication of Hazards

1.0 We understand the importance of communicating asbestos hazard information at this job site. Our plan to communicate those hazards follows the requirements of 29 CFR 1926.1101(k) and contains information and procedures for the following elements:

- Duties of building and facility owners.
- Duties of employers who's Teammates perform work subject to this standard in or adjacent to areas containing ACM and PACM.
- Criteria to rebut the designation of installed material as PACM.
- Warning signs.
- Labels.
- Teammate information and training.
- Access to training materials.

## Rule 2008 . . . . . Methods of Compliance

1.0 Our methods of compliance set operation-specific and exposure-triggered work practices for conducting asbestos work. Each job is specific and the methods of compliance will include the following required and optional procedures.

2.0 The following basic engineering controls and work practices are a part of all asbestos operations at this jobsite regardless of the levels of exposure (except as provided in 29 CFR 1926.1101(g)(8)(ii)):

- Vacuum cleaners equipped with HEPA filters to collect all debris and dust containing ACM or PACM.
- Wet methods, or wetting agents, to control Teammate exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where we demonstrate that the use of wet methods is infeasible due to for example, the creation of electrical hazards, equipment malfunction, and, in roofing.
- Prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers.
- In addition to the requirements noted above for all asbestos operations we use the following control methods to achieve compliance with the TWA permissible exposure limit and excursion (STEL) limit.
- Local exhaust ventilation equipped with HEPA filter dust collection systems.
- Enclosure or isolation of processes producing asbestos dust.
- Ventilation of the regulated area to move contaminated air away from the breathing zone of Teammates and toward a filtration or collection device equipped with a HEPA filter.
- Use of other work practices and engineering controls that the Assistant Secretary can show to be feasible.
- Wherever the feasible engineering and work practice controls described above are not sufficient to reduce Teammate exposure to or below the permissible exposure limit and/or excursion limit we will use them to reduce Teammate exposure to the lowest levels attainable by these controls and shall supplement them by the use of respiratory protection.

3.0 Prohibitions:

3.1 We never use the following work practices and engineering controls for work related to asbestos or for work which disturbs ACM or PACM, regardless of measured levels of asbestos exposure or the results of initial exposure assessments:

- High-speed abrasive disc saws that are not equipped with point of cut ventilator or enclosures with HEPA filtered exhaust air.
- Compressed air to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air.
- Dry sweeping, shoveling, or other dry clean-up of dust and debris containing ACM and PACM.
- Teammate rotation as a means of reducing Teammate exposure to asbestos.

4.0 Class I Requirements:

4.1 In addition to the required provisions of paragraphs (g)(1) and (2) of 29 CFR 1926.1101, we implement all other required engineering controls and work practices as required by 29 CFR 1926.1101(g)(4)-Class I Requirements, (5)-Specific control methods for Class I work, and (6)-Alternative control methods for Class I work.

4.2 All Class I work, including the installation and operation of the control system is supervised by our Competent Person.

5.0 Work Practices and Engineering Controls for Class II work:

5.1 All Class II work, including the installation and operation of the control system is supervised by our Competent Person. For all indoor Class II jobs, where we have not produced a negative exposure assessment, or where during the job changed conditions indicate there may be exposure above the PEL, or where we do not remove the ACM in a substantially intact state, we will use one of the methods in 29 CFR 1926.1101(g)(7)(ii)(A) - (C), to ensure that airborne asbestos does not migrate from the regulated area. We perform all Class II asbestos work using the work practices and requirements in 29 CFR 1926.1101(g)(1)(i) - (iii).

6.0 Additional Controls for Class II Work:

6.1 When performing the following types of Class II asbestos work, we comply with the work practices and controls designated for each type. We do understand that where more than one control method may be used, we may choose one or a combination of designated control methods. Class II work also may be performed using a method allowed for Class I work, except that glove bags and glove boxes are allowed if they fully enclose the Class II material to be removed. We ensure that the work practices as specified below are followed:

- For removing vinyl and asphalt flooring materials containing ACM or for which in buildings constructed no later than 1980 we have not verified the absence of ACM in accordance with 1926.1101(g)(8)(i), Teammates comply with the work practices in 1926.1101(g)(8)(i)(A)-(I), and that Teammates are trained in these practices in accordance with 1926.1101(k)(9).
- For removing roofing material which contains ACM under 1926.1101(g)(8)(ii)(A)-(H).
- When removing cementitious asbestos-containing siding and shingles or transite panels containing ACM on building exteriors (other than roofs, where 1926.1101(g)(8)(ii) applies) under 1926.1101(g)(8)(iii)(A)-(D).
- When removing gaskets containing ACM under 1926.1101(g)(8)(iv)(A)-(D).

- Any other Class II removal of asbestos containing material for which specific controls have not been listed in 29 CFR 1926.1101(g)(8)(iv)(A)-(D) under 1926.1101(g)(8)(v)(A)-(D).

7.0 Alternative Work Practices and Controls

7.1 Instead of the Class II work practices and controls listed in 1926.1101(g)(8)(i)-(v), we may use different or modified engineering and work practice controls. In those cases we will follow the provisions found in 1926.1101(g)(8)(vi)(A) & (B).

8.0 Work Practices and Engineering Controls for Class III Asbestos Work

8.1 We conduct Class III asbestos work using engineering and work practice controls which minimize the exposure to our Teammates performing the work and to bystander Teammates. This written plan reflects the procedures in 1926.1101(g)(9)(i)-(v) including:

- Wet methods.
- When feasible, local exhaust ventilation.
- Where the disturbance involves drilling, cutting, abrading, sanding, chipping, breaking, or sawing of thermal system insulation or surfacing material we will use impermeable drop cloths, and will isolate the operation using mini-enclosures or glove bag systems in compliance with 29 CFR 1926.1101(g)(5) or another isolation method.
- Where we do not have a “negative exposure assessment,” or where monitoring results show the PEL has been exceeded, we will contain the area using impermeable drop cloths and plastic barriers or their equivalent, or shall isolate the operation using a control system in compliance with 29 CFR 1926.1101(g)(5).
- Our Teammates performing Class III jobs, involving the disturbance of thermal system insulation or surfacing material, or where we do not produce a “negative exposure assessment” or where monitoring results show a PEL has been exceeded, wear respirators selected, used and fitted in accordance with 29 CFR 1926.1101(h) and our Respiratory Protection Program

9.0 Class IV Asbestos Work

9.1 Teammates trained in our asbestos awareness training program (29 CFR 1926.1101(k)(9)) will be allowed to work Class IV asbestos jobs. In addition, all Class IV jobs will conform to the requirements of 29 CFR 1926.1101(g)(1), mandating wet methods, HEPA vacuums, and prompt clean up of debris containing ACM or PACM. Our Teammates cleaning up debris and waste in a regulated area where respirators are required will wear respirators selected, used and fitted in accordance with 29 CFR 1926.1101(h) and our Respiratory Protection Program. When we have Teammates who clean up waste and debris in, or we are in control of areas where friable thermal system insulation or surfacing material is accessible, we will assume that such waste and debris contains asbestos.

10.0 Alternative methods of compliance for installation, removal, repair, and maintenance of certain roofing materials

10.1 When installing, removing, repairing, or maintaining intact pipeline asphaltic wrap, or roof cements, mastics, coatings, or flashings which contain asbestos fibers encapsulated or coated by bituminous or resinous compounds the following steps are taken:

- Before work begins and as needed during the job, our Competent Person who is capable of identifying asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate such hazards, conducts an inspection of the worksite and determine that the roofing material is intact and will likely remain intact.

- All Teammates performing work covered by this alternative method of compliance are trained in a training program that meets the requirements of 29 CFR 1926.1101(k)(9).
- The material is not sanded, abraded, or ground. Manual methods which do not render the material non-intact are used.
- Material that has been removed from a roof is not dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it will be lowered to the ground via covered, dust-tight chute, crane or hoist. All such material will be removed from the roof as soon as is practicable, but in any event no later than the end of the work shift.
- Where roofing products labeled according to the labeling instructions in 29 CFR 1926.1101(k)(8) as containing asbestos are installed on non-residential roofs during operations covered in 29 CFR 1926.1101(g)(11), we will notify the building owner of the presence and location of such materials no later than the end of the job.
- All removal or disturbance of pipeline asphaltic wrap is performed using wet methods.

If during the course of the job the material does not remain intact, the provisions of 29 CFR 1926.1101(g)(8) apply instead of 29 CFR 1926.1101(g)(11).

**Rule 2009 . . . . . .Respiratory Protection**

1.0 We provide respirators and ensure they are used in the following circumstances (See Section 12 of this Safety Manual for more information):

- During all Class I asbestos jobs.
- During all Class II work when the ACM is not removed in a substantially intact state.
- During all Class II and III work not performed using wet methods, except for removal of ACM from sloped roofs when a negative exposure assessment has been made and the ACM is removed in an intact state.
- During all Class II and III asbestos jobs where we do not conduct a negative-exposure assessment.
- During all Class III jobs where TSI or surfacing ACM or PACM is being disturbed.
- During all Class IV work performed within regulated areas where Teammates performing other work are required to wear respirators.
- During all work covered by this section where Teammates are exposed above the TWA or excursion limit.
- In emergencies.

2.0 Respirator Selection

2.1 Where respirators are used, we select and provide, at no cost to our Teammates, the appropriate respirator in accordance with the selection criteria found at 29 CFR 1926.1101(h)(3). We ensure that Teammates use the respirators provided.

2.2 We do not select or use filtering face-piece respirators for use against asbestos fibers.

2.3 We provide a HEPA-equipped, tight fitting, powered, air-purifying respirator in lieu of any negative-pressure respirator whenever:

- A Teammate chooses to use this type of respirator, and
- This respirator will provide adequate protection to the Teammate.

2.4 In addition, we provide a HEPA-equipped, half-mask, air purifying respirator, other than a filtering face-piece respirator, whenever our Teammates perform:

- Class II and III asbestos jobs where we have not conducted a negative exposure assessment; or
- Class III jobs involving disturbance of TSI or surfacing ACM or PACM.

2.5 We also provide Teammates with a HEPA-equipped, tight-fitting, powered, air-purifying respirator or a full face-piece, supplied-air respirator operated in the pressure-demand mode and equipped with either HEPA egress cartridges or an auxiliary positive-pressure, self-contained breathing apparatus (SCBA) whenever the Teammates are in a regulated area performing Class I asbestos work for which a negative exposure assessment is not available and the exposure assessment indicates that the exposure level will be at or below 1 f/cc as an 8-hour time-weighted average (TWA).

2.6 Moreover, we provide Teammates with a full face-piece supplied-air respirator operated in the pressure-demand mode and equipped with an auxiliary positive-pressure SCBA whenever the Teammates are in a regulated area performing Class I asbestos work for which a negative exposure assessment is not available and the exposure assessment indicates that the exposure level will be above 1 f/cc as an 8-hour TWA.

3.0 Respirator Program

3.1 When we are required to use respiratory protection, the program we institute is in accordance with 29 CFR 1910.134(b) through (d) (except (d)(1)(iii)), and (f) through (m).

3.1.1 *Note: See respiratory protection requirements under 29 CFR 1910.134(b) through (d) (except (d)(1)(iii)), and (f) through (m). Other components of our respirator program include prohibiting the assignment of asbestos work that requires respirator use if, based on their most recent medical examination, the examining physician determines that the Teammate will be unable to function normally while using a respirator, or that the safety or health of the Teammate or other Teammates will be impaired by the Teammate's respirator use.*

3.2 Those Teammates will be assigned to another job or given the opportunity to transfer to a different position, the duties of which they are able to perform with the same employer, in the same geographical area, and with the same seniority, status, and rate of pay and other job benefits they had just prior to such transfer, if such a different position is available.

4.0 Respirator Fit Testing

4.1 We make sure that the respirator issued to each Teammate exhibits the least possible face-piece leakage and that the respirator is fitted properly. We perform either quantitative or qualitative face fit tests:

- Before any of our Teammates are required to use any respirator with a negative or positive pressure tight-fitting face-piece;
- Whenever a different respirator face-piece (size, style, model, or make) is used;
- At least annually;
- Whenever the Teammate reports, or our company, the physician or other licensed health care professional (PLHCP), Supervisor, or Program Administrator makes visual observations of, changes in the Teammate's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and

- When the Teammate, subsequently after passing a qualitative or quantitative fit test, notifies the company, Program Administrator, Supervisor, or PLHCP that the fit of the respirator is unacceptable. That Teammate will be retested with a different respirator face-piece.

**Rule 2010 . . . . . Protective Clothing**

1.0 We provide and require the use of protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings for:

- Any Teammate exposed to airborne concentrations of asbestos that exceed the TWA and/or STEL.
- This site when a required negative exposure assessment is not produced.
- Any Teammate performing Class I operations which involve the removal of over 25 linear or 10 square feet of TSI or surfacing ACM and PACM.

2.0 Laundering

2.1 We ensure that laundering of contaminated clothing is done so as to prevent the release of airborne asbestos in excess of the TWA or STEL. When we give contaminated clothing to another person for laundering we inform that person of the requirement in 29 CFR 1926.1101(i)(2)(i) to effectively prevent the release of airborne asbestos in excess of the TWA or STEL.

3.0 Contaminated Clothing

3.1 Contaminated clothing is transported in sealed impermeable bags, or other closed, impermeable containers, and be labeled in accordance with 29 CFR 1926.1101(k).

4.0 Inspection of Protective Clothing

4.1 Our Competent Person examines work suits worn by our Teammates at least once per work shift for rips or tears that may occur during performance of work. When rips or tears are detected while a Teammate is working, they will be immediately mended, or the work suit shall be immediately replaced.

**Rule 2011 . . . . . .Hygiene Facilities and Practices for Teammates**

1.0 Smoking in Work Areas

1.1 We ensure that Teammates do not smoke in work areas where they are occupationally exposed to asbestos because of activities in that work area.

**Rule 2012 . . . . . .Housekeeping**

1.0 Vacuuming

1.1 When we select vacuuming methods we always use HEPA filtered vacuuming equipment. The equipment is used and emptied in a manner that minimizes the reentry of asbestos into the worksite.

2.0 Waste Disposal

2.1 Asbestos waste, scrap, debris, bags, containers, equipment, and contaminated clothing will be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled, impermeable containers except in roofing operations. Our roofing operation waste disposal procedures follow the requirements of 29 CFR 1926.1101(g)(8)(ii).

3.0 Care of Asbestos-Containing Flooring Material

3.1 All vinyl and asphalt flooring material will be cared for in accordance with 29 CFR 1926.1101(g)(8)(l) unless the building/facility owner demonstrates, pursuant to 29 CFR 1926.1101(g)(8)(i)(l) the flooring does not contain asbestos.

3.2 Waste and debris and accompanying dust in an area containing accessible thermal system insulation or surfacing ACM/PACM or visibly deteriorated ACM:

- Is not dusted or swept dry, or vacuumed without using a HEPA filter.
- Is promptly cleaned up and disposed of in leak tight containers.

3.3 Health affects:

- Asbestos-containing material can cause:
- Lung, colon, stomach cancer
- Asbestosis
- Mesothelioma

4.0 Our multi-employer worksite procedures follow the requirements of the asbestos rule at 29 CFR 1926.1101(d).

Rule 2101 . . . . . Purpose and Scope
Rule 2102 . . . . . General Requirements
Rule 2103 . . . . . Definitions
Rule 2104 . . . . . Exposure Controls
Rule 2105 . . . . . Compliance Methods
Rule 2106 . . . . . Written Exposure Control Plan
Rule 2107 . . . . . Medical Surveillance
Rule 2108 . . . . . Hazard Communication and Training
Rule 2109 . . . . . Recordkeeping
Appendix A . . . . . OSHA Table 1
Appendix B . . . . . CIH Analysis for Common Tasks
Appendix C . . . . . Written Exposure Control Plans

## Rule 2101 . . . . . Purpose and Scope

*Note: All regulations in this section reference OSHA 1926.1153 for Respirable Crystalline Silica*

1.0 The purpose of this chapter is to provide flexible guidance to our Teammates for the practical control of respirable Respirable Silica on the construction job sites and thus control the exposure of the Teammates to hazardous conditions. Overexposure to respirable silica can lead to silicosis. Silicosis is caused by the inhalation of small Respirable Silica particles that become imbedded in the lung's alveoli creating scar tissue and eventually compromising the exchange of oxygen and carbon dioxide in the lungs. Silicosis is characterized by shortness of breath, fever, and cyanosis (bluish skin) due to a decrease in lung function. High levels of exposure can lead to lung cancer and death.

2.0 These rules apply for any activity where there is a possibility of occupational exposure to respirable silica in excess of the OSHA time weighted average (TWA is a calculation that averages worker exposure over an 8-hour day) of 25 micrograms per cubic meter of air.

## Rule 2102. . . . . .General Requirements

1.0 Table 1 Compliance

- Comply with the control methods outlined in OSHA 1926.1153 Table 1 (Appendix A of this chapter).
- Create a written Exposure Control Plan (Appendix C of this chapter).
- Assign a Competent Person to monitor activities and assure compliance.
- Restrict all housekeeping activities where silica exposure is likely to appropriate methods using either a wet method or HEPA vacuuming.
- Offer medical exams (per OSHA guidelines) for Teammates who have to wear a respirator 30 or more days per year.
- Train all Teammates on the silica rules and methods of dust control, housekeeping methods, and the selection and use of associated PPE.
- Maintain all medical records (per OSHA guidelines) and records of all Teammate exposures.

2.0 Non- Table 1 Compliance- Alternative Exposure Controls

- Measure the level of silica that Teammates are exposed to.
- Protect workers from silica in excess of the PEL.
- Use dust control to protect Teammates from silica exposure above the PEL.
- Provide respirators to Teammates when exposures cannot be limited. (see Chapter 12 of the manual).)
- Create a written Exposure Control Plan (ECP).
    - Assign a Competent Person to each job where silica exposure is likely.
    - Provide medical exams as per 1.0 above and maintain all medical records and records of Teammate exposures as per 1.0 above.
    - Train Teammates on the silica rules, methods of compliance, housekeeping methods, selection and use of associated PPE.

## Rule 2103 . . . . . Definitions

1.0 Action Level - A concentration of airborne silica in excess of 25 micrograms per cubic meter of air.

2.0 Assigned Protection Factor (APF) – Respirators are given an APF as an indication of their relative efficiency at filtering particulates or protecting the wearer.

3.0 Certified Industrial Hygienist (CIH) – A safety professional capable of conducting exposure tests and calculating exposure levels for the various silica-producing tasks including those on Appendix A.

4.0 Competent Person - A Teammate who is capable of identifying existing and foreseeable silica hazards and who has the authority to take prompt corrective action to eliminate or minimize them.

5.0 Exposure Control Plan (ECP) – A written document to be maintained at the exposure site. The ECP outlines the tasks to be performed, the control methods to be used, the Competent Person in charge of the tasks, housekeeping methods to be employed, and all PPE required to safely perform the job.

6.0 HEPA Filter – A filter that is 99.97% efficient in removing dispersed particles of 0.3 microns

7.0 Permissible Exposure Limit (PEL) – The maximum daily exposure workers may be exposed to. The PEL for respirable silica is 50 micrograms per cubic meter of air per day.

8.0 PLHCP – A Physician or Licensed Health Care Professional

9.0 Respirable Crystalline Silica – Quartz, crystobalite, and/or trydimite contained in airborne particles that are determined to be respirable by a sampling device.

10.0 Time Weighted Average (TWA) is the average exposure over a specified period, usually a nominal eight hours.

## Rule 2104 . . . . . Exposure Controls

1.0 Specific Exposure Controls.

Where it has been determined that any Teammate can be exposed to respirable silica, Team Fishel will fully and properly implement engineering controls, work practices, and respiratory protection as specified in Table 1 of the OSHA standard (Appendix A of this chapter), unless the exposure has been assessed and is determined to be below the action level or the Teammates exposure is limited.

1.1 Common silica-producing tasks are listed in Appendix A of this chapter. For each task or tool there is a corresponding engineering and work control method along with an allowable work time and respirator requirements.

1.1.1 Indoor tasks require the use of exhaust to eliminate the accumulation of Respirable Silica.

1.1.2 Where water is used the flow rat e must be sufficient to minimize the release of visible dust.

1.1.3 For work controls where an enclose cab or booth are used the booth/cab must be as free from visible dust as possible, door seals and latches must be fully operable, gaskets are in good condition, has continuous positive pressure fresh air delivery, that intake air is filtered to 95% efficiency, and has heating and cooling capabilities.

1.2 When a Teammate performs multiple tasks from Appendix A for a total duration exceeding 4 hours the respiratory protection is that which is specified for each task for duration greater than 4 hours.

1.3 When a Teammate performs multiple tasks that do not exceed 4 hours in total the respiratory protection shall be that which is specified for each task for duration shorter than 4 hours.

2.0 Non Table 1 Activity – Alternative Exposure Controls
*Note: Consult Team Fishel Safety Director prior to subjecting Teammates to Non Table -1 Activities.*

For tasks that are not listed in Appendix A or where Team Fishel does not fully and properly implement engineering controls, work practices, and respiratory protection:

2.1 Team Fishel shall ensure that no Teammate is exposed to an airborne concentration of respirable silica in excess of the action level for an 8-hour TWA by performing either of the following options:

2.1.1 **Performance option**. Team Fishel shall assess the 8-hour TWA exposure for each Teammate on the basis of any air monitoring data or objective data sufficient to accurately characterize Teammate exposure.

2.1.1.1 Monitoring data for breathing zone samples should be procured by the Safety Director through a Third Party Industrial Hygienist.

2.1.2 **Scheduled monitoring option**. Team Fishel shall perform initial monitoring to assess the 8-hour TWA exposure for each employee based on personal breathing zone air samples that reflect the exposure of Teammates performing similar tasks on the job (see Appendix B for CIH report for representative silica-producing tasks).

3.0 If initial monitoring indicates exposures are below the action level, further tests are not necessary.

3.1 If initial tests reveal exposures above the action level but below the Permissible Exposure Limit (PEL), Teammates will comply with the exposure control methods outlined in Appendix A. Repeat monitoring shall be done within 6 months.

3.1.1 Further monitoring shall be performed as outlined in 1926.1153 (d) (iii).

3.2 Retesting shall be done anytime there is a change in production processes, equipment, or work practices that result in new or additional exposures.

3.3 All tests to determine respirable silica levels shall be performed by a Certified Industrial Hygienist and the sample analysis shall be performed by a recognized laboratory that specializes in silica evaluation in accordance with OSHA 1926.1153.

3.3.1 Team Fishel shall allow Teammates to observe the monitoring process and shall notify all affected Teammates of the lab results as soon as they become available.

## Rule 2105 . . . . . .Compliance Methods

1.0 Engineering and Work Practice Controls(E&WP)
Team Fishel shall use E&WP controls to reduce and maintain Teammate exposures to respirable silica at or below the PEL, unless such controls can be proven to be unfeasible. Where such controls are not sufficient to lower the exposure to an appropriate level they shall be used to reduce them to the lowest possible level and supplement them with respiratory protection.

2.0 Respiratory Protection
When respiratory protection becomes necessary Team Fishel will supply each affected Teammate with a compliant respirator. Respiratory protection is required:

- Where specified in Appendix A

- For tasks not listed in Appendix A
- When E&WP controls are not fully implemented or are not feasible or when setting up E&WP
- When E&WP controls are not sufficient to reduce the PEL

2.1 Respiratory Protection Program
Where respirators are used, Chapter 12 of this Safety Manual shall be followed.

3.0 Specified Exposure Control Methods
For tasks listed in Appendix A, Team Fishel will fully and properly implement the E&WP Controls and respiratory protection listed per task.

4.0 Housekeeping
Dry sweeping, either by manual or mechanical means, shall not be allowed where there is a danger of respirable silica exposure unless wet sweeping or HEPA vacuuming are shown to be not feasible.

4.1 Compressed air shall not be used to clean clothing, work surfaces, streets or sidewalks.

## Rule 2106 . . . . . Written Exposure Control Plan

1.0 Team Fishel will establish and implement a written plan for every job where there is likely to be exposure to respirable silica. Sample plans may be found in Appendix C of this chapter. Each plan contains the following elements:

- Task description
- E&WP
- Respiratory Protection
- Housekeeping measures
- Methods to restrict access to work areas where silica is present

2.0 Written plans will be updated annually to ensure effectiveness and compliance.

3.0 A Written ECP will be on each job where there is a silica-producing task

## Rule 2107 . . . . . Medical Surveillance

1.0 Teammates who are required to wear a respirator for 30 or more days per year shall have medical surveillance available at no cost to them and at a reasonable time and place.

2.0 Medical exams shall be performed by a PLHCP

2.1 Initial Exams – Baseline exams shall be conducted within 30 days of a Teammate being assigned to silica work unless a qualifying exam has been performed within the past 3 years. Exam shall include:

- Medical and work history.
- Past, present, or anticipated respirable silica exposure.
- Any history of respiratory illness or dysfunction.
- Smoking status.
- Physical exam with emphasis on the respiratory system.
- Chest X-ray to meet OSHA specifications.

- Pulmonary function test to meet OSHA specifications.
- Tuberculosis test.
- Any other tests deemed appropriate by PLHCP.

2.1.2 Exams shall be performed every 3 years unless the PLCHP recommends a more frequent schedule.

2.1.3 PLCHP shall have a copy of OSHA 1926.1153 at the time of the exam. This shall be provided by Team Fishel. PLCHP shall also be provided with:

- Teammate's former, current, and anticipated duties relative to occupational silica exposure.
- Teammate's former, current, and anticipated levels of occupational exposure to respirable silica.
- Description of any PPE used or to be used by the Teammate including when and how long it is to be used and how long it has already been used.
- Information from prior relevant employment-related medical exams.

2.1.4 The PLCHP medical report shall be given to the Teammate within 30 days of the exam and explained fully to the Teammate. The written report shall include:

- A statement of results including any medical condition that would place the Teammate at increased risk from exposure to respirable silica or require further examination.
- Recommended limitations on respirator use.
- Recommended limitations on exposure to respirable silica.
- Any recommendations for further examinations by specialists based on X-ray findings.

2.1.5 The PLCHP shall provide a written report to Team Fishel within 30 days of the Teammate's exam. The report shall include:

- Date of the exam.
- Recommended limitations on respirator use.
- Recommended limitations on silica exposure.
- Recommendations for Teammate to see a specialist.

2.1.6 Additional exams required or recommended by the PLCHP shall be provided to the Teammate within 30 days of the opinion.

## Rule 2108 . . . . . Hazard Communication and Teammate Training

1.0 Respirable silica is a known carcinogen and shall be included in the Hazard Communication rules in Chapter 4 of this manual.

2.0 Team Fishel will ensure that each Teammate covered by this chapter is trained in and can demonstrate competency of the following:

- Health hazards associated with respirable silica.
- Specific jobs or tasks that could result in silica exposure.

- Specific control measures to protect the Teammates from respirable silica exposure.
- The nature and purpose of a Competent Person.
- The scope and contents of a Written Exposure Control Plan.
- The purpose and scope of any medical examinations that may be required.

2.1 Training shall be updated annually for current Teammates and shall be completed as part of any new hire orientation where the Teammate is assigned a job that could expose him or her to respirable silica.

## Rule 2109 . . . . . Recordkeeping

1.0 Air Monitoring Data - Team Fishel will make and retain all test documents relative to crystalline silica exposure measurements conducted as a means of assessment. These test will be conducted by a Certified Industrial Hygienist and will include the following:

- Date, place, time, and task being measured
- Sampling and analytical method used including number and duration of samples taken
- CIH credentials
- Laboratory identification
- Type of PPE used for monitoring or sample collection
- Names of all Teammates present during sample collection

2.0 Medical Data – Team Fishel shall make and maintain an accurate record for each Teammate covered by medical surveillance.

# APPENDIX A:

## 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.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>– When used outdoors.<br>– When used indoors or in an enclosed area. | | |
| (iv) Drivable saws | For tasks performed outdoors only:<br>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.<br>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.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | None | None |
| (i) Stationary masonry saws | Use saw equipped with integrated water delivery system that continuously feeds water to the blade.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | None | None |

| Equipment / Task | Engineering and Work Practice Control Methods | Required Respiratory Protection and Minimum Assigned Protection Factor (APF) | |
|---|---|---|---|
| | | ≤ 4 hours /shift | > 4 hours /shift |
| (ii) Handheld power saws (any blade diameter) | Use saw equipped with integrated water delivery system that continuously feeds water to the blade.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | | |
| | – When used outdoors. | None | None |
| | – 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:<br>Use saw equipped with commercially available dust collection system.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>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 |
| (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.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Dust collector must provide the air flow recommended by the tool manufacturer | None | None |
| (viii) Dowel drilling rigs for concrete | For tasks performed outdoors only:<br>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.<br>Use a HEPA-filtered vacuum when cleaning holes. | None<br>APF 10 | None<br>APF 10 |

| Equipment / Task | Engineering and Work Practice Control Methods | Required Respiratory Protection and Minimum Assigned Protection Factor (APF) | |
|---|---|---|---|
| | | ≤ 4 hours /shift | > 4 hours /shift |
| (ix) Vehicle-mounted drilling rigs for rock and concrete | Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. | None | None |
| | OR<br>Operate from within an enclosed cab and use water for dust suppression on drill bit. | None | None |
| (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<br>Use tool equipped with commercially available shroud and dust collection system.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. | | |
| | – When used outdoors. | None | APF 10 |
| | – When used indoors or in an enclosed area. | APF 10 | APF 10 |
| (xi) Handheld grinders for mortar removal | Use grinder equipped with commercially available shroud and dust collection system.<br><br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br><br>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. | APF 10 | APF 25 |

| 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:<br>Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>OR | None | None |
| | Use grinder equipped with commercially available shroud and dust collection system.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>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.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | None | None |
| | OR<br>Use machine equipped with dust collection system recommended by the manufacturer.<br>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br><br>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.<br><br>When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes. | None | None |

| Equipment / Task | Engineering and Work Practice Control Methods | Required Respiratory Protection and Minimum Assigned Protection Factor (APF) | |
|---|---|---|---|
| | | ≤ 4 hours /shift | > 4 hours /shift |
| (xiv) Small drivable milling machines (less than half-lane) | Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant.<br>Operate and maintain machine to minimize dust emissions. | None | None |
| (xv) Large drivable milling machines (half-lane & larger) | For cuts of any depth on asphalt only:<br>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.<br>Operate and maintain machine to minimize dust emissions. | None | None |
| | For cuts of four inches in depth or less on any substrate:<br>Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust.<br>Operate and maintain machine to minimize dust emissions. | None | None |
| | OR<br>Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant.<br>Operate and maintain machine to minimize dust emissions. | 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).<br>Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions.<br>Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station. | None | None |

| Equipment / Task | Engineering and Work Practice Control Methods | Required Respiratory Protection and Minimum Assigned Protection Factor (APF) | |
|---|---|---|---|
| | | ≤ 4 hours / shift | > 4 hours / shift |
| (xvi) Heavy equipment and utility vehicles used to abrade or fracture silica- containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials | Operate equipment from within an enclosed cab. | None | None |
| | 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 |
| (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<br>When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab. | None | None |

# APPENDIX B:
# CIH ANALYSIS FOR COMMON TASKS

*Note: Team Fishel CIH is task and geography specific.*

INDUSTRIAL HYGIENE EXPOSURE STUDY

CONDUCTED ON OCTOBER 31, 2017

FOR

TEAM FISHEL

LOCATION:
ROCHESTER OFFICE
350 KENTUCKY AVENUE
ROCHESTER, PENNSYLVANIA

PROJECT NUMBER: 17-36221

## EXECUTIVE SUMMARY

An industrial hygiene exposure study was conducted on October 31, 2017 for Team Fishel. The study was performed at one of Team Fishel's field offices sites located in Rochester, Pennsylvania. The study was conducted to evaluate potential employee exposures to respirable dust and silica during hammer drilling activities for compliance with the new OSHA Silica Standard. Testing and evaluation was conducted to simulate average typical daily drilling activities involved with typical concrete wall and concrete masonry unit (CMU) wall systems commonly encountered by Fishel employees. The study was also conducted as a baseline exposure assessment to evaluate controls and personal protective equipment being used by employees. On the day of the survey, Team Fishel only performed simulated activities using a hammer drill on a concrete wall and a CMU wall that were constructed for this study. Therefore, testing was limited to these activities only and other tasks were not sampled.

Task personnel sample results for respirable dust during hammer drilling through the CMU and concrete walls were all non-detectable (less than 0.25 milligrams per cubic meter (mg/m$^3$). These are under the OSHA PEL for dust and ACGIH recommended TLV for respirable dust. Task sample results for respirable crystalline silica, as quartz, were non-detectable (less than 0.025 mg/m$^3$). Results were under the current OSHA PEL, AL and ACGIH TLV.

Based on the sample results and conditions observed at the time of this study, the OSHA Crystalline Silica Standard (29 CFR 1926.1153) would not apply. Team Fishel has met the "alternative exposure control methods" requirements covered under 29 CFR 1926.1153(c)(2)(i) by performing an exposure assessment which meets the "performance option" requirement.

It is important to note that employers are required to reassess potential exposures whenever there is a change in production, process, control equipment, personnel or other work practices. For Team Fishel this would include factors such as daily output, frequency, type of tool being used, core bit type, thickness or composition of material being drilled through, weather conditions, etc. which may affect potential silica exposure.

Based on the results of this assessment, no additional respiratory protection or PPE recommendations are being offered at this time. Additional details regarding the recommendations outlined above are offered in this report.

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Appendix I – Sample Results Table
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## I. INTRODUCTION

An industrial hygiene exposure study was conducted on October 31, 2017 for Team Fishel. The study was performed at one of Team Fishel's field office sites located in Rochester, Pennsylvania. Team Fishel provides a variety of utility installation and other contracting construction services for the electric, natural gas, communications, and other low-voltage (commercial utility sectors. Services can sometimes include tasks involving drilling and tapping into or through concrete and other masonry wall structures which can result in potential silica exposure.

The study was conducted to evaluate potential employee exposures to respirable dust and silica during hammer drilling activities for compliance with the new OSHA Silica Standard. Testing and evaluation was conducted to simulate average typical daily drilling activities involving typical concrete wall and concrete masonry unit (CMU) wall types commonly encountered by Fishel employees. This study was also conducted as a baseline exposure assessment to evaluate controls and personal protective equipment being used by employees. On the day of the survey, Team Fishel only performed activities using a hammer drill on a concrete wall and a CMU wall that were constructed for this study. Therefore, testing was limited to these activities only and other tasks were not sampled.

Mr. Richard Marcie, associate environmental hygiene consultant, for Aries Consulting, a division of Gallagher Bassett Services, Inc. conducted the study. Mr. Joseph F. Murphy, CIH, MS, National Services Manager, and Mr. Timothy St. Pierre, MPH, CIH, CSP Director of Industrial Hygiene Services performed the study design, data evaluation, and preparation of this report. Mr. Warren Graves, Safety Manager, Mr. Tim Griffin, Regional Area Manager, and Mr. Kyan Hershberger, Area Manager, with Team Fishel, supplied essential information and assistance during the study.

## II. SAMPLING METHODS AND EXPOSURE GUIDELINES

### *SAMPLING MATERIALS AND METHODS*

Personal samples were collected using portable sampling pumps and collection media. Respirable samples were collected using a personal cyclone sampler. Pump flow rate was established before, during and after the evaluation using a Dwyer rotameter that was calibrated with a Gilian Gilibrator electronic flow meter. An analytical blank (control) sample was submitted for each analyte unless otherwise noted. Due to the short duration of each sampling event, all samples were collected in order to meet the minimum analytical detection limit for silica.

This sampling methodology meets the requirements outlined in the Occupational Safety and Health Administration (OSHA) technical manual, Personal Sampling for Air Contaminants (Section II, Chapter 2).

The specific methodology for air sampling collection and analysis are outlined in Table 1.

Table 1: Air Sampling Methodology

| Contaminant | Collection Media | Analytical Method |
|---|---|---|
| Silica (as Quartz) with Respirable Dust | 5 Gram pre-weighed PVC filter cassette | Mod. NIOSH 0600/NIOSH 7500/Mod. OSHA ID-142: Gravimetric/X-Ray Diffraction |

Samples requiring laboratory analysis were analyzed by Galson Laboratories of East Syracuse, NY. The laboratory is accredited under the American Industrial Hygiene Association (AIHA). Practices and procedures used by the laboratory conform to the recommended methods developed by the National Institute for Occupational Safety and Health (NIOSH) and OSHA.

## *EXPOSURE GUIDELINES*

The employee's exposure concentrations were evaluated with respect to the Occupational Safety and Health Administration's permissible exposure limits and action levels (OSHA PEL and AL) and the American Conference of Industrial Hygienists Threshold Limit Values (ACGIH TLV). The PELs and TLVs are promoted as airborne concentrations of chemicals under which it is believed that a worker can be repeatedly exposed eight hours a day for a working lifetime without adverse health effects.

TLVs are revised annually to incorporate the latest scientific data. TLVs are used by professionals as guidelines and do not represent a strict separation between safe and hazardous environmental conditions. The guidelines are based upon the best available information from industrial experience, experimental human and animal studies and, when possible, a combination of the three.

OSHA recognizes that many of its permissible exposure limits (PELs) are outdated and inadequate for ensuring protection of worker health. OSHA adopted the majority of its PELs more than 40 years ago and since 1978, only 16 complete 6(b) standards with PELs and 13 standards for carcinogens (without PELs) have been promulgated. Recently, OSHA has acknowledged that new scientific data, advanced experimental and developmental technology indicate that in many instances the mandatory PELs are not sufficiently protective of workers' health. OSHA recommends that employers consider using available alternative occupational exposure limits such as ACGIH TLVs, State PELs, NIOSH RELs and other applicable limits.

*SILICA*

Respirable silica (quartz) is considered a *hazardous dust*. Long-term exposure to significant concentrations of free silica can lead to the progressive, irreversible lung disease silicosis. The toxicity of silica-containing dust is directly related to the percentage of quartz contained in the dust.

On June 23rd, 2016, OSHA's new silica standard went into effect. The new standard lowers the Permissible Exposure Limit (PEL) for respirable silica to 0.05 mg/m³ with an action level (AL) of 0.025 mg/m³. Employers in the construction industry have until June 23rd, 2017 to comply with the updated regulations. A written exposure control plan is required under the new standard. The plan must consider tasks involving exposure to respirable crystalline silica, engineering controls, work practices, and respiratory protection for each task, and finally housekeeping methods used to limit exposure. The construction industry has two (2) methods for compliance to the standard: by implementing specified exposure control methods or using alternative exposure control methods.

1. Specified exposure control methods: Table 1 in the construction standard contains eighteen (18) common construction tasks with engineered exposure control methods and, in some cases, respirator requirements. If employers fully and properly implement the controls outlined in Table 1, they are exempt from certain requirements, such as compliance to the permissible exposure limit (PEL) and employee exposure monitoring for those engaged in select tasks. Medical surveillance will be required for employees who use respirators more than thirty (30) days a year.

2. Alternative exposure control methods: If an employer fails to comply with the specified exposure control methods in Table 1, exposures above the AL trigger certain compliance items such as baseline exposure monitoring, personal protective equipment, and/or medical surveillance. When the PEL is exceeded, compliance with all sections of the OSHA standard is mandatory.

Long-term exposure to elevated concentrations of free silica can lead to the progressive lung disease silicosis. The ACGIH TLV reviews research that indicates a significant disease risk for exposures greater than 0.025 mg/m³ of respirable silica.

## III. PROCESS MONITORED, RESULTS AND RECOMMENDATIONS

Industrial hygiene monitoring was performed during a hammer drilling tasks associated with a concrete wall and EMG will to obtain short-term and time-weighted average (TWA) exposure data. One (1)

employee performed all test simulations and was assessed for potential exposure to respirable dust and silica as quartz. Detailed air sampling results can be found in Appendix I and II.

*PROCESS DESCRIPTION – HAMMER DRILLING THROUGH CMU WALL:* One (1) worker used an electric powered hammer drill to perform drilling on an 8 inch wide mortared CMU wall. The saw operator made two (2) drill holes per test event to simulate the number of holes that will be drilled in a typical shift. Each hole took approximately 3 – 5 minutes to complete. Monitoring was performed during each set of holes and time weighted average (TWA) for all three test events combined. The total task time to complete all six test holes was approximately 30 minutes. The following equipment was used for hammer drilling simulation:

| Mfg. | Model | Gas/Electric | rpm | Bit Size (in.) | Comments |
|---|---|---|---|---|---|
| Bosch | RH540S- Spline Rotary Hammer | Electric – 120V | 170 - 340 | 2" | 6.2 ft.lb. impact |

Weather Conditions: 37°F, 87% R.H., Wind 9 mph, no precipitation.

(See photos of hammer drilling process below)

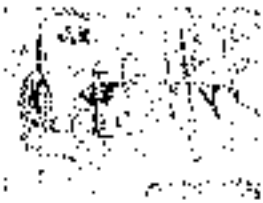

Photo 1: Bosch Hammer Drill used



Photo 2: Bosch core head bit



Photo 3: CMU test wall



Photo 4: Beginning of test holes



Photo 5: Test holes in progress



Photo 6: Near completion of test holes



Photo 7: Completion of 6 inch hole.

*PPE:* The worker was equipped with steel-toed safety shoes, hard hat, safety glasses, and leather work gloves as personal protective equipment (PPE).

*RESULTS:* Short term and 8-hr. time weighted average ($TWA_8$) personnel sample results for respirable dust during hammer drilling through the CMU wall were all non-detectable (less than 0.25 mil grams per cubic meter ($mg/m^3$). These are under the OSHA PEL for dust and ACGIH recommended TLV for respirable dust.

Short term and $TWA_8$ sample results for respirable crystalline silica, as quartz, were non-detectable (less than 0.025 $mg/m^3$). Results were under the OSHA PEL, AL and ACGIH TLV.

*DISCUSSION/RECOMMENDATIONS:* Data indicated that hammer drilling through CMU wall does not exceed the OSHA AL for respirable dust or silica as quartz.

*PROCESS DESCRIPTION – HAMMER DRILLING THROUGH CONCRETE WALL:* One (1) worker used an electric powered hammer drill to perform drilling on a 7-inch wide solid concrete wall. The saw operator made two (2) drill holes per test event to simulate the number of holes that would be drilled in a typical shift. Each hole took approximately 4 – 5 minutes to complete. Monitoring was performed during each set of holes and time weighted average (TWA) for all three test events combined. The total time it took to complete all six test holes was approximately 80 minutes. The following equipment was used for the hammer drilling simulation.

| Mfg. | Model | Gas/Electric | rpm | Bit Size(in.) | Comments |
|---|---|---|---|---|---|
| Bosch | RH540S- Spline Rotary Hammer | Electric – 120V | 170 - 540 | 2" | 6 J/Energy Impact |

Weather Conditions: 42°F, 59% R.H., Wind 15 mph, no precipitation

(See photos of hammer drilling process below)



Photos 6 – 10: Hammer drill through concrete wall



Photos 11 – 13: Hammer drill through concrete wall



Photo 14: Completion of all regression sites

*PPE:* The worker was equipped with steel toed safety shoes, hard hat, safety glasses, and leather work gloves as personal protective equipment (PPE).

*RESULTS:* Short term and 8-hr. time weighted average (TWA$_8$) personnel sample results for respirable dust during hammer drilling through the CMU wall were all non-detectable (less than 0.25 milligrams per cubic meter [mg/m$^3$]. These are under the OSHA PEL for dust and ACGIH recommended TLV for respirable dust.

Short term and TWA$_8$ sample results for respirable crystalline silica, as quartz, were non-detectable (less than 0.025 mg/m$^3$. Results were under the current OSHA PEL, AL and ACGIH TLV.

*DISCUSSION/RECOMMENDATIONS:* Data indicated that hammer drilling through CMU wall does not exceed the OSHA AL for respirable dust or respirable quartz.

## IV. SUMMARY OF RECOMMENDATIONS

Based on the sample results and conditions observed at the time of this study, the OSHA Crystalline Silica Standard (29 CFR 1926.1153) would not apply. Team Fishel has met the "alternative exposure control methods" requirements covered under 29 CFR 1926.1153 (d)(2)(i) by performing an exposure assessment which meets the "performance option" requirement.

It is important to note that employers are required to reassess potential exposures whenever there is a change in production, process, control equipment, personnel or other work practices. For Team Fishel this would include factors such as duty cycle, frequency, type of tool being used, core bit type, thickness or composition of materials being drilled through, weather conditions, etc. which may affect potential silica exposure.

Based on the results of this assessment, no additional respiratory protection or PPE recommendations are being offered at this time.

## V. EMPLOYEE MONITORING NOTIFICATION

In accordance with OSHA standard 1926.1153, the testing results recorded in this report must be provided to employees within 5 days. The OSHA standard is as follows:

> *"(vii) Employee notification of assessment results. (A) Within five working days after completing an exposure assessment in accordance with paragraph (d)(2) of this section, the employer shall either individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.*
>
> *(B) Whenever an exposure assessment indicates that employee exposure is above the PEL, the employer shall describe in the written notification the corrective actions being taken to reduce employee exposure to or below the PEL."*

It is recommended that all personnel sampling data be shared with employees who participated in the process and with those that may be represented by the monitoring results.

# APPENDIX C:
# WRITTEN EXPOSURE CONTROL PLANS

## Silica Exposure Control Plan

The following are standardized Silica Exposure Control Plans for those tasks listed in 29 CFR 1153 Table 1: Specified Exposure Control Methods when Working with Materials Containing Crystalline Silica have been approved by the Director ESH&S. All SECP must be tailored for the site specific operations.


| Process | Task Description | Page |
|---|---|---|
| Saw | Use of a handheld power saw (any diameter blade) outdoors | 2 |
| | Use of a handheld power saw indoors/enclosed area | 4 |
| | Use of handheld power saw on fiberboard with a blade less than 8 inch outdoors | 6 |
| | Use of walk behind power saw outdoors | 8 |
| | Use of walk behind power saw indoors/enclosed area | 10 |
| Drill | Use of rig mounted core saw or drill | 12 |
| | Use of handheld drills, impact , rotary hammer | 14 |
| | Use of stand-mounted drills, impact , rotary hammer | 16 |
| | Use of a vehicle mounted drill on rock or concrete | 18 |
| | Use of a vehicle mounted drill on rock or concrete inside cab | 20 |
| Jackhammer | Use of handheld jackhammer, power chipping tool outdoors (option 1) | 22 |
| | Use of handheld jackhammer, power chipping tool indoors/enclosed area (option 1) | 24 |
| | Use of handheld jackhammer, power chipping tool outdoors (option 2) | 26 |
| | Use of handheld jackhammer, power chipping tool indoors/enclosed area (option 2) | 28 |
| Grinder | Use of handheld grinder tuck-pointing | 30 |
| | Use of handheld grinder outdoors | 32 |
| | Use of handheld grinder indoors/enclosed areas. | 34 |
| Milling | Use of a small drivable: (small, < half lane) milling machine | 36 |
| Heavy Equipment | Use of heavy equipment and utility vehicles used in demolishing, abrading and/or fracturing inside cab | 38 |
| | Use of heavy equipment and utility vehicles used in demolishing, abrading and fracturing outside cab | 40 |
| | Use of heavy equipment and utility vehicles used in grading and excavating | 42 |
| | Use of heavy equipment and utility vehicles used in grading and excavating lone operator | 44 |
| Abrasive Blasting | Use of abrasive blasting system | 46 |
| Blank SECP Checklist | SILICA EXPOSURE CONTROL PLAN CHECKLIST | 48 |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of a handheld power saw | |
| **Material:** Masonry | |
| **Process:** Saw (any diameter) | |
| **Equipment:** Handheld power saw | |
| **Work Environment**: [Work Environment]<br>Any work environment | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use saw equipped with integrated water delivery system that continuously feeds water to the blade. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: APF 10 | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.

Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of a handheld power saw | |
| **Material:** Masonry | |
| **Process:** Saw (any diameter) | |
| **Equipment:** Handheld power saw | |
| **Work Environment**: [Work Environment]<br>Any work environment | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use saw equipped with integrated water delivery system that continuously feeds water to the blade. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: APF 10 | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of a handheld power saw with a blade less than 8 inch | |
| **Material:** Cement fiberboard | |
| **Process:** Saw (any diameter) saw (equal or less than 8 inch diameter blade) any diameter blade | |
| **Equipment:** Handheld power saw-fiberboard | |
| **Work Environment**: [Work Environment]<br>Outdoors Only | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use saw equipped with commercial available dust collection system. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: SIlica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of a walk behind power saw | |
| **Material:** SCM | |
| **Process:** Saw | |
| **Equipment:** Walk behind power saw | |
| **Work Environment**: [Work Environment]<br>Outdoors | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use saw equipped with integrated water delivery system that continuously feeds water to the blade. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of a walk behind power saw | |
| **Material:** SCM | |
| **Process:** Saw | |
| **Equipment:** Walk behind power saw | |
| **Work Environment**: [Work Environment]<br>When used indoors or enclosed area | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use saw equipped with integrated water delivery system that continuously feeds water to the blade.<br>Provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: 10X APF<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of rig mounted core saw or drill | |
| **Material:** SCM | |
| **Process:** Drill | |
| **Equipment:** Rig mounted core saw/drill | |
| **Work Environment**: [Work Environment]<br>Silent | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use tool equipped with integrated water delivery system that supplies water to cutting surface. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of handheld drills, impact, rotary hammer | |
| **Material:** SCM | |
| **Process:** Drill | |
| **Equipment:** Handheld drills, impact, rotary hammer | |
| **Work Environment**: [Work Environment]<br>Silent | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use drill equipped with commercially available shroud or cowling with dust collection system.<br>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. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Use a HEPA-filtered vacuum when cleaning holes. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of stand-mounted drills, impact, rotary hammer | |
| **Material:** SCM | |
| **Process:** Drill | |
| **Equipment:** Stand-mounted drills, impact, rotary hammer | |
| **Work Environment**: [Work Environment]<br>Silent | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use drill equipped with commercially available shroud or cowling with dust collection system.<br>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. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.<br>Use a HEPA-filtered vacuum when cleaning holes. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.

Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of vehicle mounted drill | |
| **Material:** Rock or concrete | |
| **Process:** Drill | |
| **Equipment:** Vehicle mounted drill rig | |
| **Work Environment**: [Work Environment] | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use dust collection system with close capture hood or shroud around drill bit with low-flow water spray to wet the dust at the discharge point from the dust collector. (Option 1) | |
| **Work Practices:** Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of vehicle mounted drill | |
| **Material:** Rock or concrete | |
| **Process:** Drill | |
| **Equipment:** Vehicle mounted drill rig | |
| **Work Environment**: [Work Environment] | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Operate from within an enclosed cab and use water for dust suppression on drill bit. (Option 2) | |
| **Work Practices:** Apply water at flow rates sufficient to minimize release of visible dust. When cabs are used, the cab must:<br>▪ have an interior that is maintained as free as practicable from settles dust;<br>▪ have door seals and closing mechanisms that work properly;<br>▪ have gaskets and seals that are in good condition and working properly;<br>▪ be maintained under a positive pressure through continuous delivery of fresh air;<br>▪ filter the intake air through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better)<br>▪ have heating and cooling capabilities | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|
| | |

Notes:

# Silica Exposure Control Plan

**Task:** Use of handheld jackhammer, power chipping tool

**Material:** SCM

**Process:** Jackhammer

**Equipment:** Handheld jackhammer, power chipping tool, scabbing-mounted drill rig

| **Work Environment**: [Work Environment] | **Task Duration** |
|---|---|
| Outdoors | ☐ Task < 4 hour<br>☐ Task > 4 hour |

**Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)**

**Engineering Controls:** Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact: (Option 1)

**Work Practices:** Apply water at flow rates sufficient to minimize release of visible dust.

| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
|---|---|

**Exposure Assessment**

| **Method Used To Assess Exposure Levels:** | **Testing Protocol** |
|---|---|
| ☐ Scheduled Monitoring Option<br>☐ Performance Option | ☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |

**Precautionary Procedures for Exposures > ½ the PEL**

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be “sealed HEPA vacuums” that comply with Safety Manual: Section 21: Silica.

Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

# Silica Exposure Control Plan

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**
Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person:**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan:**

| **Approved by Silica Competent Person:** | **Date:** |
|---|---|
| | |

Notes:

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of handheld jackhammer, power chipping tool | |
| **Material:** SCM | |
| **Process:** Jackhammer | |
| **Equipment:** Handheld jackhammer, power chipping tool, scabbing-mounted drill rig | |
| **Work Environment**: [Work Environment]<br>Indoors or in an enclosed area | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact: (Option 1)<br>Provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. | |
| **Work Practices:** Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: 10X APF<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of handheld jackhammer, power chipping tool | |
| **Material:** SCM | |
| **Process:** Jackhammer | |
| **Equipment:** Handheld jackhammer, power chipping tool, scabbing-mounted drill rig | |
| **Work Environment**: [Work Environment]<br>Outdoors | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use tool equipped with commercially available shroud and dust collection system. Operate and maintain till 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 filter-cleaning mechanism: (Option 2) | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: 10X APF<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan:** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of handheld jackhammer, power chipping tool | |
| **Material:** SCM | |
| **Process:** Jackhammer | |
| **Equipment:** Handheld jackhammer, power chipping tool, scabbing-mounted drill rig | |
| **Work Environment**: [Work Environment]<br>Indoors or in an enclosed area | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use tool equipped with commercially available shroud and dust collection system. Operate and maintain till 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 filter-cleaning mechanism: (Option 2)<br>Provide a means of exhaust as needed to minimize the accumulation of visible airborne dust. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: 10X APF<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of handheld grinder for tuck-pointing | |
| **Material:** Mortar | |
| **Process:** Grinding | |
| **Equipment:** Handheld grinder for tuck-pointing | |
| **Work Environment**: [Work Environment]<br>Outdoors Only | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use grinder equipped with commercially available shroud and dust collection system. 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. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: 10X APF<br>Task > 4 hour: 25X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Handheld grinders for uses other than mortar removal | |
| **Material:** SCM | |
| **Process:** Grinding | |
| **Equipment:** Handheld grinder | |
| **Work Environment**: [Work Environment]<br>When used outdoors | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use grinder equipped with commercially available shroud and dust collection system. 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. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Handheld grinders for uses other than mortar removal | |
| **Material:** SCM | |
| **Process:** Grinding | |
| **Equipment:** Handheld grinder | |
| **Work Environment**: [Work Environment]<br>When used indoors or in an enclosed area | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use grinder equipped with commercially available shroud and dust collection system. 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.<br>Provide means of exhaust as needed to minimize the accumulation of visible airborne dust. | |
| **Work Practices:** Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: 10X APF | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.

Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| | |
|---|---|
| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
| **Task:** Use of a small drivable milling machine. | |
| **Material:** SCM | |
| **Process:** Milling | |
| **Equipment:** Drivable: (small, < half lane) milling machine | |
| **Work Environment**: [Work Environment] | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with surfactant. | |
| **Work Practices:** Operate and maintain machine to minimize dust emissions. Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of heavy equipment and utility vehicles used in demolishing, abrading and fracturing. | |
| **Material:** SCM | |
| **Process:** Demolishing, abrading and fracturing. | |
| **Equipment:** Heavy equipment and utility vehicles. | |
| **Work Environment**: [Work Environment]<br>Inside cab | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Operate equipment from within an enclosed cab. | |
| **Work Practices:** When cabs are used, the cab must:<br>▪ have an interior that is maintained as free as practicable from settles dust;<br>▪ have door seals and closing mechanisms that work properly;<br>▪ have gaskets and seals that are in good condition and working properly;<br>▪ be maintained under a positive pressure through continuous delivery of fresh air;<br>▪ filter the intake air through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better)<br>▪ have heating and cooling capabilities | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use if heavy equipment and utility vehicles used in demolishing, abrading and fracturing. | |
| **Material:** SCM | |
| **Process:** Demolishing, abrading and fracturing. | |
| **Equipment:** Heavy equipment and utility vehicles. | |
| **Work Environment**: [Work Environment]<br>Outside of cab | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** | |
| **Work Practices:** When Teammates outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.<br>Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of heavy equipment and utility vehicles used in grading and excavating. | |
| **Material:** SCM | |
| **Process:** Grading and excavating. | |
| **Equipment:** Heavy equipment and utility vehicles. | |
| **Work Environment**: [Work Environment]<br>Outside of cab | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Apply water and/or dust suppressants as necessary to minimize dust emissions. | |
| **Work Practices:** Apply water at flow rates sufficient to minimize release of visible dust. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |
| **Housekeeping**<br>Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.<br><br>A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be “sealed HEPA vacuums” that comply with Safety Manual: Section 21: Silica.<br>Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities. | |

# Silica Exposure Control Plan

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**
Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

**Task Description (29 CFR 1926.1153(c) Table 1)**

**Task:** Sole operator using heavy equipment and utility vehicles in grading and excavating.

**Material:** SCM

**Process:** Grading and excavating.

**Equipment:** Heavy equipment and utility vehicles.

| **Work Environment**: [Work Environment] | **Task Duration** |
|---|---|
| Inside of cab | ☐ Task < 4 hour<br>☐ Task > 4 hour |

**Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)**

**Engineering Controls:** When the equipment operator is the only Teammate engaged in the task, operate equipment from within an enclosed cab.

**Work Practices:** When cabs are used, the cab must:

- have an interior that is maintained as free as practicable from settles dust;
- have door seals and closing mechanisms that work properly;
- have gaskets and seals that are in good condition and working properly;
- be maintained under a positive pressure through continuous delivery of fresh air;
- filter the intake air through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better)
- have heating and cooling capabilities

| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: None<br>Task > 4 hour: None | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
|---|---|

**Exposure Assessment**

| **Method Used To Assess Exposure Levels:** | **Testing Protocol** |
|---|---|
| ☐ Scheduled Monitoring Option<br>☐ Performance Option | ☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |

| **Assessed Exposure Level** (if applicable) | **Narrative for Assessed Exposure Level** |
|---|---|
| ☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | 29 CFR 1926.1153(c) Table 1 used |

**Precautionary Procedures for Exposures > ½ the PEL**

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

| **Competent Person:** | |
|---|---|
| **Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.* | |
| **Approval of Silica Exposure Control Plan** | |
| **Approved by Silica Competent Person:** | **Date:** |
| Notes: | |

# Silica Exposure Control Plan

| **Task Description (29 CFR 1926.1153(c) Table 1)** | |
|---|---|
| **Task:** Use of abrasive blasting system. | |
| **Material:** SCM (blasting agent or surface) | |
| **Process:** Abrasive blasting | |
| **Equipment:** Heavy equipment and utility vehicles. | |
| **Work Environment**: [Work Environment]<br>Inside of cab | **Task Duration**<br>☐ Task < 4 hour<br>☐ Task > 4 hour |
| **Specified Exposure Control Methods (29 CFR 1926.1153(c) Table 1)** | |
| **Engineering Controls:** Per 29 CFR 1926.57(f). All abrasive blasting must be in a regulated area. Prohibited from using silica sand as a blasting agent. | |
| **Work Practices:** Silica-containing dust are vacuumed with HEPA-filtered equipment, removed by wet methods, or treated with a dust suppressant as often as necessary.<br>Competent person inspects abrasive blasting activities to ensure that engineering controls and respiratory protection are being properly used and remain effective.<br>Competent person participates in the evaluation of alternative blasting media or dust control technologies.<br>Competent person communicates with other Teammates at the worksite to inform them of the boundaries of regulated areas established around abrasive blasting operations. | |
| **Respiratory Protection:**<br>List manufacturer, model and type of facepiece and the cartridge types.<br>Task < 4 hour: Type CE<br>Task > 4 hour: Type CE | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSH Respiratory Protection).<br>☐ YES<br>☐ NO |
| **Exposure Assessment** | |
| **Method Used To Assess Exposure Levels:**<br>☐ Scheduled Monitoring Option<br>☐ Performance Option | **Testing Protocol**<br>☐ Sample and Analysis<br>☐ Direct Reading Instrument<br>☐ Visual |
| **Assessed Exposure Level** (if applicable)<br>☐ <PEL<br>☐ 10 X PEL<br>☐ 25 X PEL<br>☐ Other_____ | **Narrative for Assessed Exposure Level**<br>29 CFR 1926.1153(c) Table 1 used |
| **Precautionary Procedures for Exposures > ½ the PEL** | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.
Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers.

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person:**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| **Approved by Silica Competent Person:** | **Date:** |
|---|---|

Notes:

# Silica Exposure Control Plan

## SILICA EXPOSURE CONTROL PLAN CHECKLIST

NOTIFICATION:

☐ NOTIFY FOREMAN OR SUPERVISOR

☐ NOTIFY SAFETY COORDINATOR

| Date: | Time: | Location: | Division: |
|---|---|---|---|
| **Task Description:** | | | |
| **Task:** | | | |
| **Material**: | | | |
| **Process**: | | | |
| **Equipment**: | | | |
| **Work Environment: [Work Environment]** | | Task Duration<br>• Task < 4 hour<br>• Task > 4 hour | |
| **Specified Exposure Control Methods** | | | |
| **Engineering Controls:** | | | |
| **Work Practices:** | | | |
| **Respiratory Protection:**<br>*List manufacturer, model, and type of the facepiece and the cartridge types.*<br>Task < 4 hour:<br>Task > 4 hour: | | Users of respirators are under a respirator protection program in accordance with 29 CFR 1910.134 (OSHA Respiratory Protection.)<br>• Yes<br>• No | |
| **Exposure Assessment** | | | |
| **Method Used To Assess Exposure Levels:**<br>• Scheduled Monitoring Option<br>• Performance Option | | **Testing Protocol**<br>• Sample and Analysis<br>• Direct Reading Instrument<br>• Other | |
| **Assessed Exposure Level** (if applicable)<br>• <PEL<br>• 10 X PEL<br>• 25 X PEL<br>• Other _____ | | **Narrative for Assessed Exposure Level**<br>*Sufficient detail to describe how you characterize employee exposures to respirable crystalline silica.*<br>*Describe how the Scheduled Monitoring Option was used*<br>*Describe how the performance option was used addressing air monitoring data or objective data* | |
| **Precautionary Procedures for Exposures > ½ the PEL** | | | |

# Silica Exposure Control Plan

**Housekeeping**

Where housekeeping activities could contribute to employee exposure to respirable crystalline silica in excess of ½ the PEL, the following practices will be implemented.

A HEPA filtering vacuum is the preferred means to clean silica dust off surfaces or clothing. Vacuums used must be "sealed HEPA vacuums" that comply with Safety Manual: Section 21: Silica.

Use of a wet method is recognized as effective in reducing the amount of dust created from housekeeping activities.

Dry sweeping or dry brushing that is prohibited unless HEPA-filtered vacuuming, wet sweeping or other methods that minimize the likelihood of exposure are not feasible.

Team Fishel will not allow compressed air to be used to clean clothing or surfaces unless used in accordance with Safety Manual: Section 21: Silica.

**Access Control Areas**

Access control areas must be used to restrict access to work areas with exposures > ½ the PEL for respirable crystalline silica, including exposures generated by other employers

The access control area must be as small as is manageable.

Access to the access control area must be restricted to a minimal number of essential Teammates.

**Competent Person**

**Competent Person:** *Identify the Competent Person who is responsible for frequent and regular inspections of the job site, materials and equipment for exposures to RCS dust.*

**Approval of Silica Exposure Control Plan**

| Approved by Silica Competent Person | Date: |
|---|---|

Notes:

Rule 2201. . . . . General Driving Policy
Rule 2202 . . . . . Spotter Policy
Rule 2203 . . . . . Reward Policy
Rule 2204 . . . . . Driver Safety Awards
Rule 2205 . . . . . GPS Policy
Rule 2206 . . . . . ELD Tablet Policy
Rule 2207 . . . . . DOT Compliance Manual
MODULE 1 . . . . . General Compliance
Appendix 1A . . . . . Federal and State Motor Carrier Safety Regulations
Appendix 1B . . . . . Out of State Checklist
Appendix 1C . . . . . Annual Vehicle Inspection Report
MODULE 2. . . . . Driver Qualification Requirements
Appendix 2A . . . . . Team Fishel Driving Policy
Appendix 2B . . . . . Process for Qualifying CMV Drivers
Appendix 2C . . . . . Driver Qualification Checklist
MODULE 4. . . . . VEHICLE MAINTENANCE

## Rule 2201. . . . . Team Fishel Driving Policy

1.0 Please refer to Appendix A of this section for the Team Fishel Driving Policy.

2.0 This policy shall be reviewed and signed by all teammates expected to operate a Team Fishel Vehicle.

3.0 Refer to the Disciplinary Matrix in the Team Fishel's Safety Manual for the appropriate disciplinary actions for any at-fault vehicle accident.

4.0 Vehicles shall be assigned by means of vehicle telematics to the proper Teammate prior to operating the vehicle. Assignment can be done through manual, EDVIR, or key fob.

5.0 All trucks 1 ton and larger are required to use wheel chocks when parked and or unoccupied. All ¾ ton Commercial Motor Vehicles (CMV) used on job sites are required to use wheel chocks when parked and or unoccupied. This also applies to trailers, air compressors, arrow boards, etc when not hooked to a vehicle that has been already chocked.

## Rule 2202 . . . . . Spotter Policy

1.0 All vehicles shall be required to place a visual reminder in front of the vehicle to initiate Teammates complete a 360 walk around of the vehicle.

- 1.1 Combination units with trailers should park in a conspicuous location and employ at least 3 cones to properly mark the extremities of the vehicle. One cone will be placed in front of the vehicle, one near the tongue of the trailer, and one behind the trailer.
- 1.2 Trucks of any size in an active construction zone must use strobes and/or flashers to indicate a parked vehicle.
- 1.3 These visual barriers do not replace or eliminate the need for MUTCD traffic control requirements.

2.0 Unless the driver is alone a spotter is required to assist all backing operations regardless of the size of the truck.

- 2.1 If a driver loses sight of their spotter at any time during the operation, they must stop until the driver and spotter reach eye contact.
- 2.2 Spotters are required to have a hi-visibility vest.
- 2.3 All backing operations performed in a CDL-class vehicle or in any sized vehicle with a trailer should have a spotter when available.
- 2.4 Spotters will be required even for vehicles with backup cameras.

3.0 Trucks of any size in an active construction zone should use strobes and/or flashers to indicate a parked vehicle according to the traffic control plan.

## Rule 2203 . . . . . Reward Policy

One of Team Fishel's primary assets is its fleet of equipment and tools. Team Fishel purchases quality equipment and tools to make a profit for all Teammates to share. Misuse of these assets will not be tolerated. Team Fishel's motto regarding equipment is "Treat this equipment as if it were your own, because all of our jobs depend on it." This motto is supported by Team Fishel's Reward Policy.

1.0 Team Fishel offers a $1,000 reward for information leading to the arrest and conviction of any person(s) involved in the theft of Team Fishel equipment. All equipment company identification numbers and serial numbers have been registered with the authorities.

## Rule 2204 . . . . . .Driver Safety Awards

Requirements for the Safest Drivers Reward Program include:

**MONTHLY REWARDS PROGRAM**

**Who?**
The top 5 percent of drivers within each division will receive a monthly safe driver reward.

**How?**
Criteria for determining the top 5%.

- Hourly Teammate.
- Classified as Low Risk on the Driver Scorecard.
- Drive a minimum of 750 miles for the month.
- Teammate shall not have had any of the following in the month:
  - ..DOT or traffic violation
  - ..An at-fault vehicle accident (including one that is reclassified as non-chargeable).

**What?**

- $50 gift card will be given monthly to the top 5% drivers in each division.
- Teammates will be recognized at the All Hands meeting for their top driving habits.

**QUARTERLY REWARDS PROGRAM**

**Who?**
The top 5 percent of drivers within each division will receive a quarterly safe driver reward.

**How?**
Criteria for determining the top 5%.

- Hourly Teammate.
- Classified as Low Risk on the Driver Scorecard.
- Drive a minimum 2,250 miles for the quarter.
- Teammates shall not have any of the following in the quarter:
  - DOT or traffic violation
  - An at-fault vehicle accident (including one that is reclassified as non-chargeable).
  - Any unassigned mileage for the qualifying year.

**What?**

- $100 gift card will be given monthly to the top 5% drivers in each division.
- Teammates will be recognized at the All Hands meeting for their top driving habits.

**ANNUAL REWARD PROGRAM**

**Who?**
The top 3 drivers for the company for the calendar year.

**How?**
Criteria for determining the top 3 drivers.

- Hourly Teammate.
- Classified as Low Risk on the Driver Scorecard.
- Drive a minimum of 9,000 miles for the year.
- Teammates shall not have any of the following in the calendar year:
  - DOT or traffic violation
  - An at-fault vehicle accident (including one that is reclassified as non-chargeable).
  - Any unassigned mileage for the qualifying year.

**What?**

- Highest rated driver company-wide will receive a $2,500 bonus check.
- Second highest rated driver company-wide will receive $1,000 bonus.
- Third highest rated driver company-wide will receive $500 bonus.
- Teammates will be recognized at the first quarter profit sharing meeting for their top driving habits.

The highest mileage driven will be used for any tie breaker.

## Rule 2205 . . . . . GPS Policy

GPS systems are installed in all Team Fishel vehicles to evaluate safe performance, and maintenance issues that may occur with the vehicles. Not only are the GPS systems a security measure for theft, but they also help evaluate safety trends that occur with our equipment. The purpose of the GPS systems are to:

1.0 Confirm drivers are abiding by Team Fishel's Driving policy requirements.

2.0 Provide beneficial information relating to false claims, or additional claim information after a vehicle accident occurs.

3.0 In the event of an accident or incident have location information to respond to, or pass to emergency services if required.

4.0 Provide exception reports on vehicle use. This could include (but is not limited to) excessive engine idling, excessive personal conveyance, speeding, harsh acceleration, harsh braking, and seat belt use.

5.0 This policy and GPS system are not intended to monitor individual Teammates, although unsafe and unauthorized vehicle usage may lead to disciplinary action.

6.0 Area Managers and Safety Coordinators may request and review information on a Teammate's trip information.

7.0 All Teammates who have access to this information are required to keep this information confidential and not use it for any other purposes than outlined in this policy.

8.0 A GPS Exemption Safety Scorecard will be distributed to all areas. Each area should examine this information and discuss with management identifying trends in all Teammates driving habits. The exemptions are listed as follows:

- 8.1 Harsh Braking - Triggered when a harsh braking event causes a G-force greater than -0.54G to be exerted on the vehicle.
- 8.2 Harsh Cornering - Triggered when a hard or aggressive turn causes a G-force greater than 0.4G to be exerted on the vehicle.
- 8.3 Hard Acceleration - Triggered when a hard acceleration event causes a G-force greater than 0.36G to be exerted on the vehicle.
- 8.4 Speeding - Measured against the posted road speed. Driving over 6 mph over the speed limit for over 20 seconds will trigger this exception.
- 8.5 Seat Belt - Violations will trigger once the unbuckled driver goes above 6.21 mph.
- 8.6 Speeding Over 80 MPH - Triggered when the vehicle travels over 80 MPH for more than 15 seconds.

## Rule 2206 . . . . . ELD Tablet Policy

Certain vehicles will be equipped with an ELD (Electronic Logging Device) tablet. The primary use for these tablets will be to administer an electronic DVIR (EVIR). These tablets will also help us meet the requirements of the FMCSA's ELD Mandate where applicable. Each tablet is assigned to a specific vehicle, not to a driver. The tablets must always be in the mount and charging when driving the vehicle.

1.0 The ELD tablet is considered a telematics device.

2.0 The tablet is intended solely for the use of EVIR and HOS - with the exception of Fishel Apps and navigation.

3.0 As a default, all ELD tablets will only have functionality for the EVIR. When requested by a manager, HOS functionality can be turned on or shut off.

4.0 The Teammate must sign in to Geotab Drive when operating a vehicle equipped with an ELD tablet. This will assign the driver to the vehicle.

5.0 The operator is responsible for their own pre-trip and post-trip EVIRs, as well as their HOS (Hours of Service) logs.

6.0 The volume must not be turned off per the ELD Mandate.

7.0 The instruction booklet for Geotab Drive EVIR and HOS (Hours of Service) must remain in the cab at all times per the ELD Mandate.

8.0 When the driver exits the vehicle, the tablet is to be locked into the mount to assist with theft prevention, unless the driver is performing a pre-trip or post-trip inspection.

9.0 The driver must respond to messages sent to the tablet when the vehicle is parked in a safe location.

10.0 Failure to comply with FMCSA regulations regarding electronic DVIR and HOS (Hours of Service) could result in disciplinary action, including termination.

## Rule 2207 ..... DOT Compliance Manual

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## Module 1 - General Compliance . . . . . (FMCSR, Sec. 387 & 390)

### Introduction to Team Fishel's DOT Compliance Program

Welcome to Team Fishel's DOT Compliance Program. Complying with the requirements specified within this manual is critical to Team Fishel's continued success. Driving vehicles is one of the most safety sensitive tasks performed by Teammates every day. Operating a Commercial Motor Vehicle (CMV) can be very dangerous. Driving safely and complying with the required safety rules and regulations is necessary for keeping Teammates, customers and the general public safe. This is the most important goal in Team Fishel's business.

The Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA) is the authority that makes and enforces the rules for operating CMVs for interstate commerce. Interpreting these rules and regulations is very challenging. The purpose of this DOT Compliance Manual is to boil down the Federal Motor Carrier Safety Regulations (FMCSR) into a meaningful and practical reference guide. Each module is designed to provide a focused breakdown of what each division needs to KNOW and what a division needs to DO to comply with the FMCSR.

This manual is designed to promote a general understanding of the regulations that apply to Team Fishel's business. The manual is NOT intended to be a technical compliance manual. Therefore, it is likely that a technical or specific question will arise that will not be addressed in the manual. When this occurs, the Safety Director can provide additional assistance.

Hopefully this manual will be a helpful guide that provides the direction needed to comply with the regulations; more importantly, it will improve our ability to perform our work safely.

### Operational Excellence – Key Performance Measures

There are two Key Performance Measures that Team Fishel will implement to monitor each division's performance in the DOT Compliance Program. As part of a continuous effort to improve the company's operational performance and to strive for excellence, the starting goal of the program is 90% compliance in four key performance areas.

**These Key Performance Measures include:**

1. Driver qualification compliance
2. DOT vehicle inspection compliance

**1. Driver qualification compliance**

- Each division is expected to be 90% compliant in correctly maintaining all active Driver Qualification (DQ) Files each year. The performance will be measured on an ongoing basis and totaled at the end of the year. The performance will be measured using the following calculation:
- The number of active DQ Files in compliance / The total number of active DQ Files

**2. DOT vehicle inspection compliance**

- Each division is expected to maintain a minimum of 90% compliance in all DOT vehicle inspections each year. The performance will be measured on an on-going basis and totaled at the end of the year. The performance will be measured using the following calculation:
- The number of DOT vehicle inspections without any violations / The total number of inspections

**What an Area Needs to KNOW to Comply – The Key Compliance Regulations**

There are some Key Compliance Regulations each division needs to know to successfully comply with the laws that regulate commercial motor carriers.

**The Key Compliance Regulations include:**

1. The definition of a CMV for Team Fishel purposes
2. An understanding of who regulates commercial motor carriers

**1. The definition of a CMV for Team Fishel purposes**

- +10,001 lbs. - For Team Fishel purposes, a CMV is any motor vehicle or motor vehicle/trailer combination that has a gross vehicle weight (GVW) of 10,001 pounds or more.
- +26,001 lbs. - For Team Fishel purposes, a driver is required to have a Commercial Driver's License (CDL) when driving a CMV or a CMV/trailer combination that:
- has a gross vehicle weight rating (GVWR) of 26,001 pounds or more, OR
- has a gross combination weight rating of 26,001 pounds or more, inclusive of a towed unit weighing 10,000 pounds or more.

**2. Who regulates commercial motor carriers?**

- The FMCSA, an agency within the DOT, regulates interstate commerce.
- For Team Fishel purposes, interstate commerce is any travel that involves driving a CMV across state lines while on duty.
- The FMCSA enforces the federal requirements for driving a CMV for interstate commerce. These federal requirements are detailed in each module of this manual. Some of the more important requirements to be covered include:

    A. A CMV driver who drives across state lines must be at least 21 years old.

    B. A driver must be qualified, meaning a complete and accurate DQ File must be maintained.

    C. A driver must complete the DVIR and the Trip Report.

    D. Complete Out of State Checklist – Appendix B.

        - The states regulate intrastate commerce.
        - Each state has its own agency that sets and enforces the rules for intrastate commerce.
        - For Team Fishel's purposes, intrastate commerce is any travel that involves driving a CMV within the state lines while on duty.
        - While some states elect to adopt the FMCSA requirements, many states adopt their own rules regulating travel for intrastate commerce. These state rules have been documented and are included in the appendix section of this module (See Appendix A - Team Fishel Federal and State Motor Carrier Regulations).
        - State requirements vary from state to state. Some have adopted the federal requirements, but others have adopted more stringent regulations when driving a CMV with a GVW of 26,000 lbs. or less. Check with your Safety Coordinator for any State requirements or exemptions.

## What an Area Needs to DO to Comply - Key Compliance Factors

There are 4 Key Compliance Factors each division must adopt to successfully comply with the laws that regulate commercial motor carriers. If the division focuses on these 4 Key Compliance Factors and executes the plan provided in this manual, the division will be successful in exceeding the goal of 90% compliance in each of the four key DOT performance areas.

**The Key Compliance Factors include:**

1. Train and coach Teammates on all applicable DOT requirements
2. Manage the DQ File process
3. Perform daily vehicle inspections and preventative maintenance
4. Enforce disciplinary process

**1. Train and coach Teammates on all applicable DOT requirements**

- The DOT requirements can be confusing, especially for someone learning them for the first time. Preventing violations is impossible without a continuous commitment to providing the required training and individual coaching needed to ensure those Teammates whose jobs demand it understand the rules and what is expected of them.
- Following are the minimum requirements necessary for establishing DOT compliance training and coaching programs for those responsible for driving a CMV, or managing those Teammates who do:
    - A new CMV driver must complete the 4-hour DOT Compliance Training Program within 30 days of the date his or her DQ File is initiated (i.e. the date the Teammate completes and signs the Driver Employment Application).
    - All Managers, Supervisors and Safety Coordinators must complete the 4-hour DOT Compliance Training Program for CMV drivers and the 2-hour DOT Compliance Training for Managers.
    - Many training materials and resources have been developed and can be found on Team Fishel's LMS.
    - The Safety Director can assist with training as needed for all divisions.

**2. Manage the DQ File process**

- DQ Files are required to be maintained on any driver who may potentially drive a CMV.
- For convenience and flexibility, Team Fishel has adopted the FMCSR and will require the division to maintain a DQ File on all CMV drivers, even if the state in which the division operates does not require a DQ File for drivers of CMVs weighing 26,000 lbs. or less.
- Module 2 describes in detail the driver qualification requirements, including proper procedures for completing and maintaining a DQ File. This module will also cover the important tools and resources an area can use in its efforts to comply with the FMCSR for maintaining DQ Files.

**3. Perform routine daily vehicle inspections and preventative maintenance**

- One of the biggest killers of productivity is down time. Taking a vehicle out of service because of improper inspection or maintenance creates down time. The key to eliminating out-of-service issues is to implement a process each division can use to ensure that drivers are completing proper daily vehicle inspections.
    - Module 4 is devoted to covering the essential requirements of performing proper daily vehicle inspections. The module also provides direction on an annual vehicle inspection procedure and roadside inspections policy.

- All CMV's that will be used must have an inspection completed by the driver before it leaves the home terminal.

The inspection will be documented on the DVIR and on the Annual Vehicle Inspection Report (See Appendix C – Annual Vehicle Inspection Report).

## How Best to Comply - Key Compliance Tools and Resources

The Key Compliance Tools and Resources include:

1. Federal and State Rules

**1. The State Exemptions**

- An exhaustive review of the state requirements for each state Team Fishel operates has been provided in Appendix A of this Module.

## Summary

Should opportunities or suggestions arise for improving any of Team Fishel's DOT-related processes, Teammates should discuss these with any member of the DOT Compliance Support Team. Opportunities for Improvement (OFIs) should be submitted to the Safety Director.

## Appendix – Module 1

Appendix A - Federal and State Motor Carrier Safety Regulations

Appendix B - Out of State Checklist

Appendix C - Annual Vehicle Inspection Report

# Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**ARIZONA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* with *GVW* of 18,001 lbs. or more | All Drivers must be at least 19 years old. |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual *MVR* review rules for *drivers* of *CMV*s with *GVW* of 18,000 lbs. or less; for *drivers* of *CMV*s with *GVW* of 18,001 lbs. or more, same as federal rule | DQ Files will be required on any driver who drives a vehicle or combination of vehicles (18,001 Lbs or more) and the DQ Files must be completed with in the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles weighing 18,001 lbs. or more | All drivers driving a vehicle or combination of vehicles (10,001 Lbs and above) will be required to do a DVIR on each vehicle or combination of vehicles they drive each day<br><br>*** If they drive out of state or exceed any of these exemptions the Federal Rules will apply** |

## Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**CALIFORNIA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* over 10,001 lbs. or more *GVW* up to 26,000 lbs. *GVW* | All intrastate drivers must be at least 19 years old. |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual MVR review rules for *drivers* of *CMV*s with *GVW* of 26,000 lbs. or less; for *drivers* of *CMV*s 26,001 lbs. or more *GVW*, same as federal rule | DQ Files will be completed on any driver that the area determines necessary. All CDL drivers will be required to have a DQ File completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as federal rule | All drivers driving a vehicle or combination of vehicles (10,001 Lbs. And above) will be required to do a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If the drivers drive out of state or exceed any of these exemptions the Federal rules will apply.** |

## Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**FLORIDA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual *MVR* review rules for *drivers* of *CMV*s with *GVW* of 26,000 lbs. or less; for *drivers* of *CMV*s with *GVW* of 26,001 lbs. or more, same as federal rule | DQ Files will be completed on any driver that the area determines is necessary. All CDL drivers will be required to have a DQ File completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles 26,001 lbs. or more *GVW* | All drivers driving a vehicle or combination of vehicles of 10,001 Lbs. and above will be required to fill out a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If the drivers drive out of state or exceed any of these exemptions the Federal Rules will apply.** |

# Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**INDIANA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* with *GVW* of 10,001 or more | All intrastate drivers must be at least 19 years old |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks;<br>Must meet medical qualifications;<br>Subject to *driver* qualification/disqualification rules;<br>Subject to annual *MVR* review | Same as federal rule | DQ Files will be completed on any Teammate that has a potential to drive a vehicle or combination of vehicles across state lines that have a GVWR of 10,001 Lbs or more and on any CDL drivers. These DQ Files must be completed within 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |

## Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations

**DOT Compliance Manual**
**Module 1 – Appendix A** **Federal and State Motor Carrier Safety Regulations**

**KENTUCKY**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | Same as federal rule | DQ Files are required on all drivers who drive a vehicle or combination of vehicles with a GVWR of 10,001 Lbs. or more. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as federal rule | All drivers driving a vehicle or combination of vehicles with a GVWR of 10,001 Lbs or more are required to do a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If the driver drives out of the state or exceeds these exemptions the Federal Rules will apply.** |

## Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**NEVADA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* over 26,000 lbs. *GVW* (No hazmats or passengers). | All intrastate drivers must be at least 19 years old. |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual MVR review rules for *drivers* of *CMV*s with *GVW* of 26,000 lbs. or less; for *drivers* of *CMV*s 26,001 lbs. or more *GVW*, same as federal rule | DQ Files will be completed on any driver that the area determines necessary. All CDL drivers will be required to have a DQ File completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as federal rule | All drivers driving a vehicle or combination of vehicles (10,001 Lbs. And above) will be required to do a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If the drivers drive out of state or exceed any of these exemptions the Federal rules will apply.** |

# Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**OHIO**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* with *GVW* of 10,001 lbs. or more up to 26,000 lbs. | All intrastate drivers must be at least 19 years old |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks; Must meet medical qualifications; Subject to *driver* qualification/disqualification rules; Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual *MVR* review rules for *drivers* of *CMV*s with *GVW* of 26,000 lbs. or less; for *drivers* of *CMV*s weighing 26,001 lbs. or more, same as federal rule | DQ Files will be completed on any Teammate that has a potential to drive a vehicle or combination of vehicles across state lines that has a GVWR of 10,001 Lbs or more and on any CDL drivers. These DQ files must be completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as federal rule | All drivers driving a vehicle or combination of vehicles over 10,001 Lbs and above will be required to do a DVIR on each vehicle or combination of vehicles they drive each day<br><br>* **If the driver drives out of state or exceeds these exemptions the Federal Rules will apply** |

# Module 1
# Appendix 1A:
# Federal and State Motor Carrier Safety Regulations



**TEXAS**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* with *GVW* of 10,001 lbs. or more up to 26,000 lbs. | All intrastate drivers must be at least 19 years old |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks;<br>Must meet medical qualifications;<br>Subject to *driver* qualification/disqualification rules;<br>Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual *MVR* review rules for *drivers* of *CMV*s 26,000 lbs. or less *GVW*; for *drivers* of *CMV*s 26,001 lbs. or more *GVW*, same as federal rule | DQ Files must be completed on all CDL Drivers and on any driver that has a potential to drive a vehicle or combination of vehicles (10,001 Lbs. or more) out of state. These DQ Files are to be completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as federal rule | All drivers driving a vehicle or combination of vehicles (10,001 Lbs. and above) will be required to do a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If the drivers drive out of state or exceed any of these exemptions the Federal Rules will apply** |

## Module 1
## Appendix 1A:
## Federal and State Motor Carrier Safety Regulations

**DOT Compliance Manual**
**Module 1 – Appendix A** **Federal and State Motor Carrier Safety Regulations**

**VIRGINIA**

| | LEGAL INTERPRETATIONS | | TEAM FISHEL POLICY |
|---|---|---|---|
| | **INTERSTATE FEDERAL RULE** | **INTRASTATE STATE RULE** | **INTRASTATE EXEMPTIONS TEAM FISHEL RULE** |
| Applicability of *FMCSR* – Part 390 | Must be 21 years old to drive *CMV* with *GVW* of 10,001 lbs. or more | Must be 18 years old to drive *CMV* with *GVW* of 10,001 lbs. or more up to 26,000 lbs. *GVW* | All intrastate drivers must be at least 19 years old. |
| Application and Driver Qualification File – Part 391 | Must complete *driver* application and background checks;<br>Must meet medical qualifications;<br>Subject to *driver* qualification/disqualification rules;<br>Subject to annual *MVR* review | No application, *driver* qualification or medical qualification, or annual *MVR* review rules for *drivers* of *CMV*s 26,000 lbs. or less *GVW*; for *drivers* of *CMV*s 26,001 lbs. or more *GVW*, same as federal rule | DQ Files will be completed on any driver that has a potential to drive a vehicle or combination of vehicles (10,001 Lbs. or more) out of state. All CDL drivers will be required to have a DQ File and needs to be completed within the first 30 days of employment. |
| *CDL* – Part 383 | Must have *CDL* to drive *CMV* with *GVW* of 26,001 lbs. or more | Same as federal rule | N/A |
| Drug and Alcohol Testing – Part 382 | All *CDL* holders subject to drug and alcohol testing | Same as federal rule | N/A |
| *Driver* Vehicle Inspection Reports – Part 396 | *Driver* must prepare daily inspection report and carrier must conduct annual vehicle inspection on all vehicles with *GVW* of 10,001 lbs. or more | Same as *federal* rule | All drivers driving a vehicle or combination of vehicles (10,001 Lbs. and above) will be required to do a DVIR on each vehicle or combination of vehicles they drive each day.<br><br>*** If they drive out of state or exceed any of these exemptions the Federal Rules will apply.** |

## Module 1
# Appendix 1B:
# Out of State Checklist

**A. Purpose:**

Pursuant to the Team Fishel DOT Compliance Policy, the Safety Coordinator and CMV or CDL driver shall review and sign this checklist prior to the driver crossing state lines. The Safety Coordinator shall retain a copy of this checklist at the local area office and submit a copy to the DOT Compliance Manager at Corporate.

B. **Checklist:**

1) Provide, Review, and Coach Teammate on how to complete the Out of State Trip Reports _____

2) Review DOT/Driver Qualification File Requirements _____

3) Driver License _____

4) Medical Card _____

5) Trip Schedule _____

6) Safety Inspection with Driver and Mechanic _____

_____ _____
Safety Coordinator/Date Teammate-Driver/Date

_____ _____
Division Number Teammate Number

## Module 1 - Appendix 1C: Annual Vehicle Inspection Report

| VEHICLE HISTORY RECORD | |
|---|---|
| REPORT NUMBER | FLEET UNIT NUMBER |
| | |
| DATE | |

| | |
|---|---|
| MOTOR CARRIER OPERATOR | INSPECTOR'S NAME (PRINT OR TYPE) |
| ADDRESS | THIS INSPECTOR MEETS THE QUALIFICATION REQUIREMENTS IN SECTION 396.19. ☐ YES |
| CITY, STATE, ZIP CODE | VEHICLE IDENTIFICATION (#) AND COMPLETE ☐ LIC. PLATE NO. ☐ VIN ☐ OTHER |
| VEHICLE TYPE ☐ TRACTOR ☐ TRAILER ☐ TRUCK ☐ (OTHER) | INSPECTION AGENCY/LOCATION (OPTIONAL) |

**VEHICLE COMPONENTS INSPECTED**

| OK | REPAIR NEEDED | REPAIRED DATE | ITEM |
|---|---|---|---|
| | | | **1. BRAKE SYSTEM** |
| | | | a. Service Brakes |
| | | | b. Parking Brake System |
| | | | c. Brake Drums or Rotors |
| | | | d. Brake Hose |
| | | | e. Brake Tubing |
| | | | f. Low Pressure Warning Device |
| | | | g. Tractor Protection Valve |
| | | | h. Air Compressor |
| | | | i. Electric Brakes |
| | | | j. Hydraulic Brakes |
| | | | k. Vacuum Systems |
| | | | **2. COUPLING DEVICES** |
| | | | a. Fifth Wheels |
| | | | b. Pintle Hooks |
| | | | c. Drawbar/Towbar Eye |
| | | | d. Drawbar/Towbar Tongue |
| | | | e. Safety Devices |
| | | | f. Saddle-Mounts |
| | | | **3. EXHAUST SYSTEM** |
| | | | a. Any exhaust system determined to be leaking at a point forward of or directly below the driver/sleeper compartment. |
| | | | b. A bus exhaust system leaking or discharging to the atmosphere in violation of standards (1), (2) or (3). |
| | | | c. No part of the exhaust system of any motor vehicle shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle. |

| OK | REPAIR NEEDED | REPAIRED DATE | ITEM |
|---|---|---|---|
| | | | **4. FUEL SYSTEM** |
| | | | a. Visible leak |
| | | | b. Fuel tank filler cap missing |
| | | | c. Fuel tank securely attached |
| | | | **5. LIGHTING DEVICES** All lighting devices and reflectors required by Section 393 shall be operable. |
| | | | **6. SAFE LOADING** |
| | | | a. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway. |
| | | | b. Protection against shifting cargo |
| | | | **7. STEERING MECHANISM** |
| | | | a. Steering Wheel Free Play |
| | | | b. Steering Column |
| | | | c. Front Axle Beam and All Steering Components Other Than Steering Column |
| | | | d. Steering Gear Box |
| | | | e. Pitman Arm |
| | | | f. Power Steering |
| | | | g. Ball and Socket Joints |
| | | | h. Tie Rods and Drag Links |
| | | | i. Nuts |
| | | | j. Steering System |
| | | | **8. SUSPENSION** |
| | | | a. Any U-bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position. |
| | | | b. Spring Assembly |
| | | | c. Torque, Radius or Tracking Components. |

| OK | REPAIR NEEDED | REPAIRED DATE | ITEM |
|---|---|---|---|
| | | | **9. FRAME** |
| | | | a. Frame Members |
| | | | b. Tire and Wheel Clearance |
| | | | c. Adjustable Axle Assemblies (Sliding Subframes) |
| | | | **10. TIRES** |
| | | | a. Tires on any steering axle of a power unit. |
| | | | b. All other tires. |
| | | | **11. WHEELS AND RIMS** |
| | | | a. Lock or Side Ring |
| | | | b. Wheels and Rims |
| | | | c. Fasteners |
| | | | d. Welds |
| | | | **12. WINDSHIELD GLAZING** Requirements and exceptions as stated pertaining to any crack, discoloration or vision reducing matter (reference 393.60 for exceptions) |
| | | | **13. WINDSHIELD WIPERS** Any power unit that has an inoperative wiper, or missing or damaged parts that render it ineffective. |
| | | | List any other condition which may prevent safe operation of this vehicle. |

INSTRUCTIONS: MARK COLUMN ENTRIES TO VERIFY INSPECTION: X = OK, X = NEEDS REPAIR, NA = IF ITEMS DO NOT APPLY, ____ = REPAIRED DATE

CERTIFICATION: THIS VEHICLE HAS PASSED ALL THE INSPECTION ITEMS FOR THE ANNUAL VEHICLE INSPECTION REPORT IN ACCORDANCE WITH 49 CFR 396.

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400-FS-C3
Rev. 3/94

ORIGINAL

**Module 2 - Driver Qualification Requirements. . . . . (FMCSR, Sec. 382, 383, & 391)**

A Teammate must satisfy all of the applicable driver qualification requirements in this module to be authorized to drive a CMV for Team Fishel.

## What an Area Needs to Know to Comply - Key Compliance Factors

There are three Key Compliance Factors every division must manage in order to keep all CMV drivers in compliance with the driver qualification requirements.

**Key Compliance Factors -** A Teammate must meet the following qualifications prior to being approved to drive a CMV:

1. The Teammate must show proof that he or she satisfies all applicable Team Fishel driving requirements.
2. A DQ File must be completed and accurately maintained within the required timeframes.
3. All training requirements must be completed within the required timeframes.

**1. The Teammate must show proof that he or she satisfies all applicable Team Fishel driving requirements.**

- Any Teammate required to drive a Team Fishel vehicle, leased or owned, must first meet all applicable requirements of the Team Fishel Driving Policy (see Rule 2201 - Team Fishel Driving Policy).
    - The Teammate must be at least 19 years of age.
    - The Teammate must have a valid driver's license.
    - The Teammate must have no more than 3 moving violations and/or 1 DUI on his or her MVR in the previous 3 years.
- In addition to meeting the general Team Fishel Driving Policy requirements listed above, the Teammate must meet the following qualifications to be authorized to drive a CMV intrastate only:
    - The Teammate must be at least 19 years of age.
    - The Teammate must have a complete, accurate, and up-to-date DQ File.
    - The Teammate must complete all Team Fishel training requirements within the specified time periods (listed below).
- In addition to meeting the general Team Fishel Driving Policy requirements listed above, the Teammate must meet the following qualifications to be authorized to drive a CMV interstate:
    - The Teammate must be at least 21 years of age.
    - The Teammate must have a complete, accurate, and up-to-date DQ File.
    - The Teammate must complete all Team Fishel training requirements within the specified time periods (listed below).
    - The Safety Coordinator and the Teammate must review and sign the Out of State Checklist (see Appendix C - Out of State Checklist). The Safety Coordinator shall retain a copy of this checklist at the local area office and submit a copy to the Safety Compliance Administrator.

**2. A DQ File must be completed and maintained within the required timeframes.**

- The Driver Qualification (DQ) File is a record of the driver's qualifications that must be met and maintained in order for him or her to drive a CMV.
- When a Teammate meets Team Fishel's requirements for driving a CMV, and there is a need or the potential for that Teammate to drive a CMV, for either intrastate or interstate purposes, he or she is required to have:
    - A complete, accurate, and up-to-date DQ File prior to driving a CMV for Team Fishel, and
    - The DQ File shall be maintained and kept compliant at all times by the corporate office.
- If, at any time, one of the driver's required qualifications expires, the Teammate shall NOT be permitted to drive a CMV until the Safety Coordinator updates the required qualification.

**3. All training requirements must be completed with the required timeframes.**

- In addition to satisfying the requirements outlined above, a Teammate is required to complete the following training requirements within the time periods specified to be authorized to drive a CMV for Team Fishel intrastate or interstate.
    - A new CMV driver must complete the DOT Compliance Training within 30 days of the Teammates DQ File being initiated (i.e. the date the Teammate completes and signs the Driver Employment Application).
- Should a Teammate NOT satisfy the training requirements within the required timeframes, the Teammate shall NOT be permitted to drive a CMV until the training requirements are completed.

## How Best to Comply - Key Compliance Tools and Resources

There are a number of **Key Compliance Tools and Resources** that have been developed to assist a division in complying with the driver qualification requirements. These tools and resources are made available to the area at no additional cost. The tools and resources available include the following:

**Key Compliance Resources:**

1. Corporate administrative support for processing all DQ Files
2. An Online Driver Qualification Management Program
3. On-going support to assist with all DOT-related training requirements

**Key Compliance Resources:**

1. Corporate administrative support for processing all DQ Files
2. An Online Driver Qualification Management Program
3. On-going support to assist with all DOT-related training requirements

**1. Corporate administrative support for processing all DQ Files**

- Corporate will support all divisions by performing many key administrative functions necessary to process, audit and maintain DQ Files to ensure compliance. These administrative functions include:

- Running MVRs and auditing the results against the Team Fishel Driving Policy.
- Processing and auditing DOT drug and alcohol test results.
- Auditing the medical examination results for compliance.
- Requesting and managing follow-up requirements to comply with previous employment verifications.
- Auditing DQ Files for compliance.
- Ensuring DQ Files are set up in the Online DQ File System accurately.
- Performing final DQ File audits and providing formal authorization notices to the division, or providing "NO DRIVE" notifications for any non-compliant drivers.
- Assisting with monitoring on-going compliance for all active DQ Files.

- Standard Operating Procedures (SOPs) have been developed and documented to communicate the roles, expectations and estimated time requirements necessary to process DQ Files in the most time- efficient manner. These include:
  - **Team Fishel's process for qualifying CMV drivers** – To complete and process a DQ File timely and effectively, the process outlined in the attached flow chart should be followed (See Appendix B - Process for Qualifying CMV Drivers).
  - **Driver Qualification Checklist** – This Checklist is required to be completed by the Safety Coordinator when compiling a new DQ File on a new driver, or submitting a DQ File to First Advantage for the first time (i.e. implementation). (See Appendix C - Driver Qualification Checklist). Incomplete DQ Files submitted to First Advantage shall be returned to the area for accurate completion.
  - **Standard Driver Qualification Files and Required Forms** – Standard DQ Files, including all required forms, will be available to each area via Team Fishel Intranet (See Appendix D - Standard DQ File Forms).

**2. Online Driver Qualification Management Program**

- A judicious technology investment has been made in an Internet-based program that will allow each division to have access to their active drivers' DQ Files via the web. The Online Driver Qualification Management Program will also provide e-mail notifications to designated management personnel that provide advance notice of expiring items.
- The Online DQ Management Program is integrated with our business partner who performs and processes many of our employment screening processes, including our drug and alcohol test results, MVR searches, physical exams and a number of various employment checks. This integration will enable the DOT-required employment verifications to be automatically downloaded into the proper Teammate's DQ File.
- This system will also produce a number of helpful management reports that will assist management in reviewing a division's compliance performance.
- The DOT Administrator and the Safety Director are Team Fishel's designated Corporate DOT resources who will provide on-going training and support to designated Teammates in each division.

**3. On-going support to assist with all DOT-related training requirements**

- Each Safety Coordinator is required to be trained as a DOT Compliance Trainer and is responsible for ensuring that each new CMV driver receives the required DOT Compliance Training within 30 days of the Teammate's DQ File being initiated (i.e. the date the Teammate completes and signs the Driver Employment Application).

- DOT Compliance Training on WorkZone – This 4 hour training must be completed on WorkZone within a driver's first 30 days .
- Only CMV drivers who have an active DQ file will be enrolled within the DOT Compliance program. If a Division would like to enroll Teammates who do not meet this requirement, then Team Fishel's training coordinator will need to be notified.

## Summary

Should opportunities or suggestions arise for improving any of Team Fishel's DOT-related processes, Teammates should discuss these with any member of the DOT Compliance Support Team. Opportunities for Improvement (OFIs) should be submitted to the Safety Director.

## Appendix – Module 2 – Forms

Appendix A - Team Fishel Driving Policy

Appendix B - Process for Qualifying CMV Drivers

Appendix C - Driver Qualification Checklist

## Module 2
# Appendix 2A:
# Team Fishel Driving Policy

A Teammate who has been assigned a Team Fishel vehicle may have the privilege of driving this vehicle between his or her residence and the yard/job site on a daily basis. Additionally, the Teammate will be responsible for knowing and adhering to the following provisions of this Driving Policy.

1. A Teammate with more than 3 moving traffic violations in a 3-year period is not permitted to drive a Team Fishel vehicle.
2. A Teammate with more than 1 Driving Under the Influence (DUI) conviction in a 3-year period on his or her MVR is not permitted to drive a Team Fishel vehicle.
3. If a Teammate receives a traffic citation or is involved in an accident while driving a Team Fishel vehicle, he or she is required to report that violation or accident to the Area Manager and/or Safety Coordinator immediately.
4. Team Fishel vehicles should only be used for official company use! Teammates are not permitted to drive a Team Fishel vehicle for personal reasons by means of transporting family members or pedestrians at any time. The Team Fishel vehicle is to be used only for travel between a Teammate's residence and the yard/jobsite. Violation of this rule could result in the loss of a Teammate's driving privileges and/or immediate dismissal.
5. A Teammate is not permitted to drive a Team Fishel vehicle if he or she has been consuming, or while under the influence of, any alcoholic beverage, illegal substance or other substance, even if legal (including prescription drugs), that may adversely affect the Teammate's ability to drive or operate equipment. Violation of this rule could result in the loss of a Teammate's driving privileges and/or immediate dismissal.
6. A Teammate is not permitted to possess alcohol, illegal substances, firearms or other weapons in a Team Fishel vehicle. Violation of this rule could result in the loss of a Teammate's driving privileges and/or immediate dismissal.
7. Teammates are responsible for the condition of the vehicles they are assigned to drive. Teammates must perform both a pre-trip and post-trip inspection of their vehicles on a daily basis. If a Teammate discovers a mechanical or equipment problem, it must be reported to the Shop Foreman immediately. Team Fishel will not pay for DOT tickets for conditions that should have been caught and corrected in a pre-trip vehicle inspection.
8. A Teammate is required to wear a seat belt when driving a Team Fishel vehicle. Additionally, he or she is responsible for ensuring that passengers wear their seat belts.
9. Team Fishel vehicles must never be parked at bars, adult bookstores, adult movie theaters, or any other locations that would reflect adversely on Team Fishel.
10. In the event of any vehicle accident, the Teammate shall be drug and alcohol tested according to Team Fishel's drug and alcohol testing policies.
11. **A driver must be approved by the Area Manager and meet the following requirements:**
    - **A. Must have no more than 3 moving violations within the last 3 years on his or her MVR.**
    - **B. Must have no more than 1 DUI conviction on his or her MVR in a 3-year period.**
    - **C. Must be certified to drive a Team Fishel vehicle by the Safety Coordinator, or a Supervisor designated by the Area/Division Manager.**
    - D. Must complete the driver-training course within 1 year of employment.
    - E. Must complete the DOT Compliance Training Program within 30 days of the date his or her

DQ File is initiated, if applicable.

F. Must be eligible and insurable under Team Fishel's liability insurance coverage.

G. In addition to meeting the general policy requirements listed above, the Teammate must demonstrate the following qualifications before being authorized to drive a CMV.

H. Unless there is a need for the Teammate to drive, all Teammates hired shall wait for a period of at least 30-days prior to being eligible to operate a Fishel Vehicle. Teammates with a need to drive prior to the 30-day grace period shall be approved by an Area Manager.

**Intrastate qualifications**

- Must be at least 19 years of age
- Must have a valid drivers license
- Must have a complete, accurate, and up-to-date DQ File

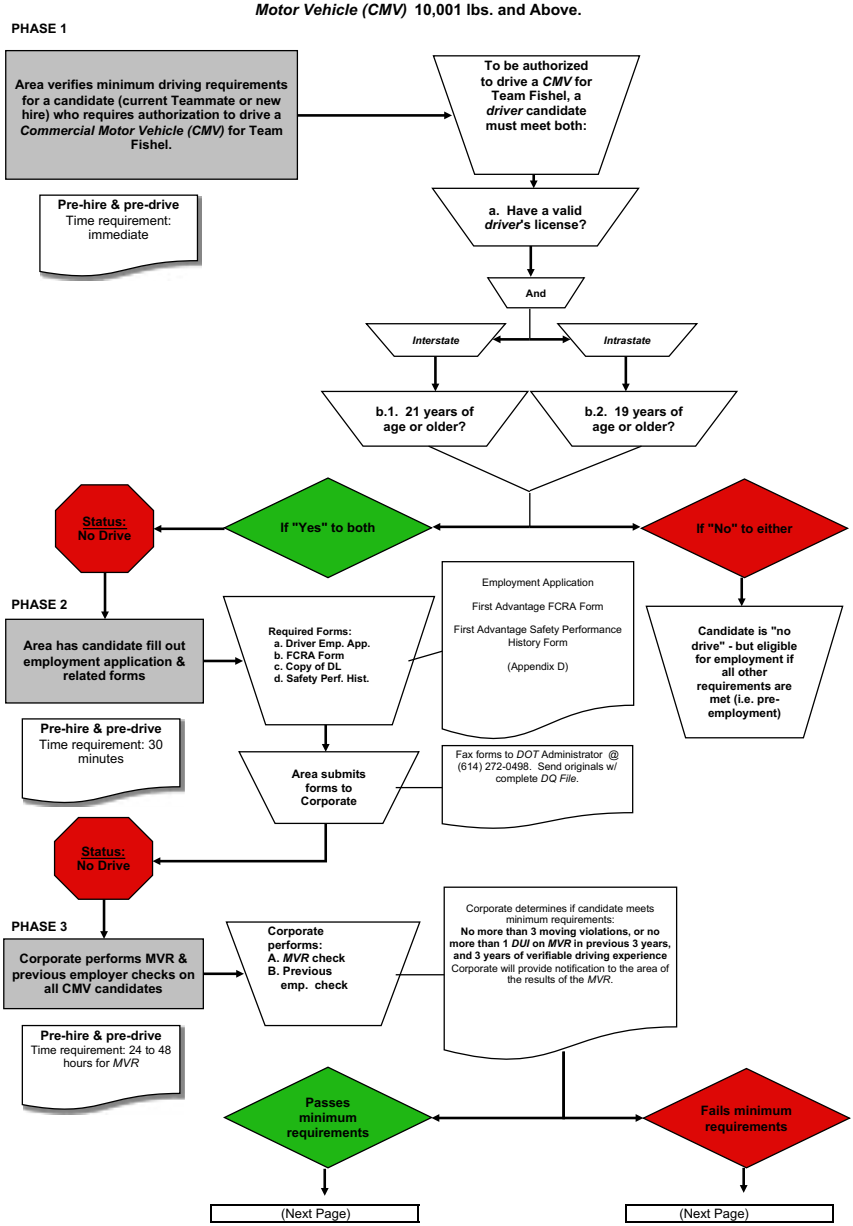
**Interstate qualifications**

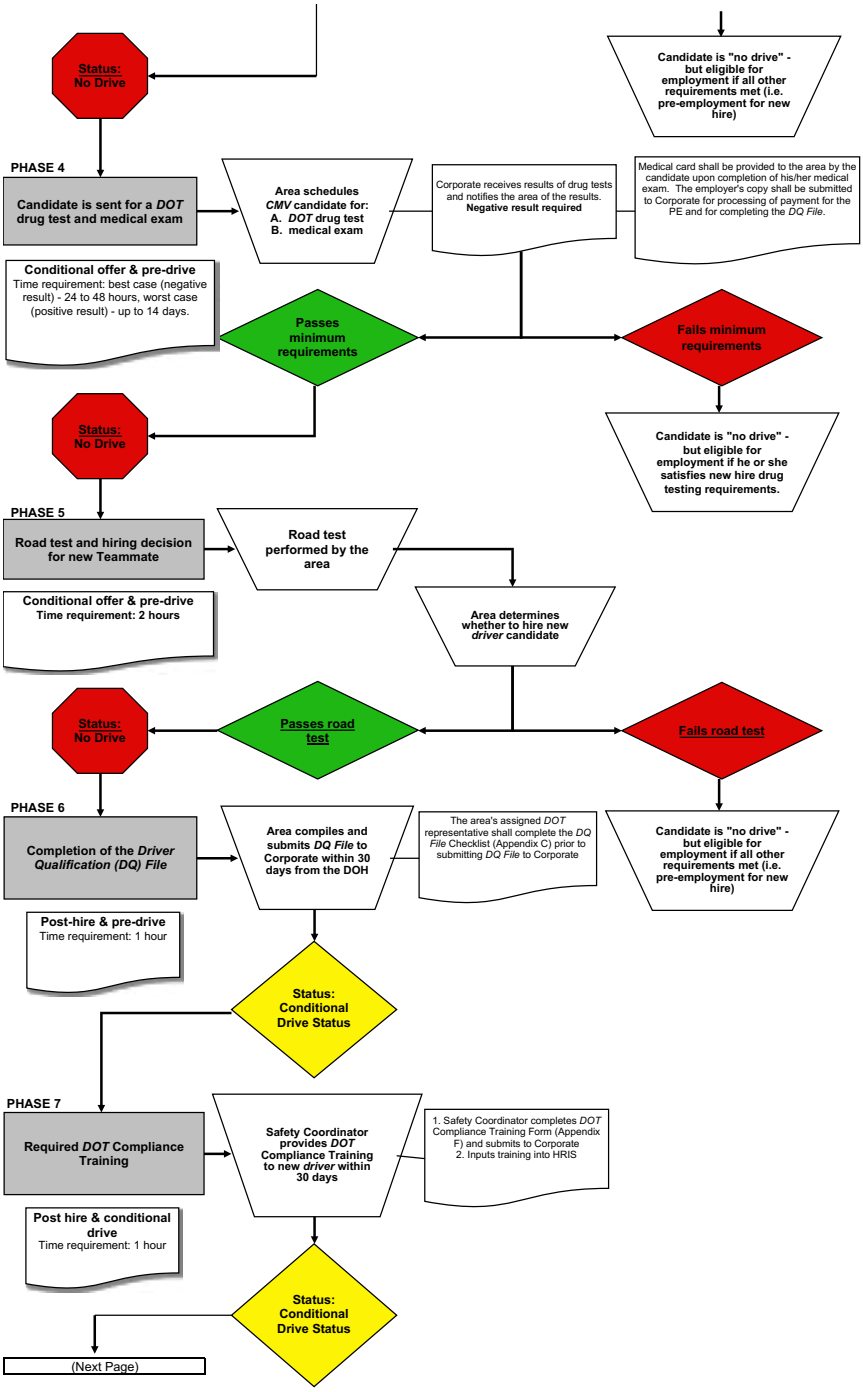
- Must be at least 21 years of age
- Must have a valid drivers license
- Must have a complete, accurate, and up-to-date DQ File

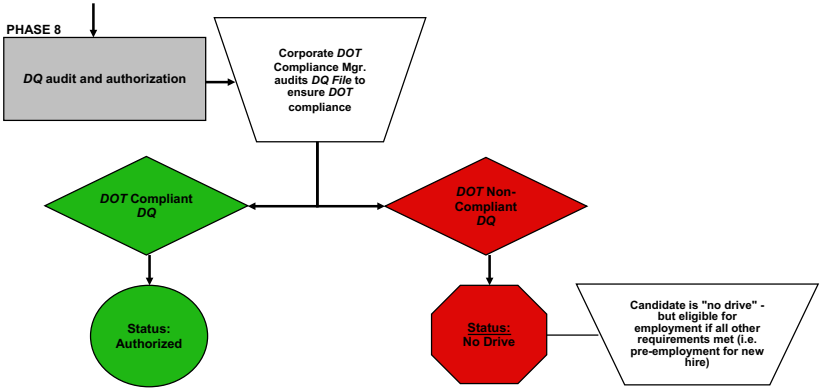
## Module 2

# Appendix 2B: Process for Qualifying CMV Drivers

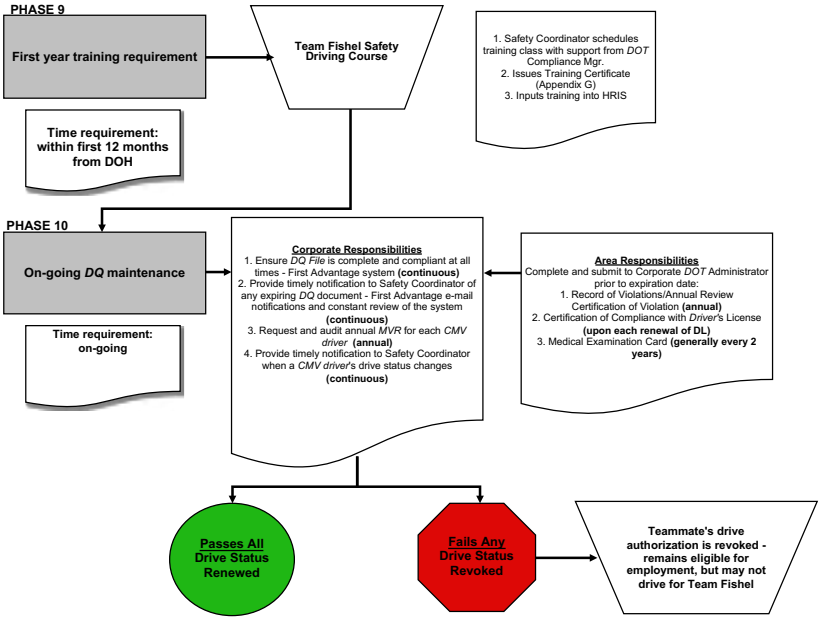
**Pre-Employment and/or Pre-Drive Status for all Teammates Needing Authorization to Drive a *Commercial Motor Vehicle (CMV)* 10,001 lbs. and Above.**




Status: No Drive
Candidate is "no drive" - but eligible for employment if all other requirements met (i.e. pre-employment for new hire)
PHASE 4
Candidate is sent for a DOT drug test and medical exam
Area schedules CMV candidate for: A. DOT drug test B. medical exam
Corporate receives results of drug tests and notifies the area of the results. Negative result required
Medical card shall be provided to the area by the candidate upon completion of his/her medical exam. The employer's copy shall be submitted to Corporate for processing of payment for the PE and for completing the DQ File.
Conditional offer & pre-drive
Time requirement: best case (negative result) - 24 to 48 hours, worst case (positive result) - up to 14 days.
Passes minimum requirements
Fails minimum requirements
Status: No Drive
Candidate is "no drive" - but eligible for employment if he or she satisfies new hire drug testing requirements.
PHASE 5
Road test and hiring decision for new Teammate
Road test performed by the area
Conditional offer & pre-drive
Time requirement: 2 hours
Area determines whether to hire new driver candidate
Status: No Drive
Passes road test
Fails road test
PHASE 6
Completion of the Driver Qualification (DQ) File
Area compiles and submits DQ File to Corporate within 30 days from the DOH
The area's assigned DOT representative shall complete the DQ File Checklist (Appendix C) prior to submitting DQ File to Corporate
Candidate is "no drive" - but eligible for employment if all other requirements met (i.e. pre-employment for new hire)
Post-hire & pre-drive
Time requirement: 1 hour
Status: Conditional Drive Status
PHASE 7
Required DOT Compliance Training
Safety Coordinator provides DOT Compliance Training to new driver within 30 days
1. Safety Coordinator completes DOT Compliance Training Form (Appendix F) and submits to Corporate
2. Inputs training into HRIS
Post hire & conditional drive
Time requirement: 1 hour
Status: Conditional Drive Status
(Next Page)




**On-going Maintenance and Authorization**



## Module 2

# Appendix 2C: Driver Qualification Checklist

**FAX COMPLETED CHECKLIST TO AIMEE LUMBARD (614) 272-0498**

TEAMMATES NAME:_____ DATE FAXED:_____

SUBMITTED BY:_____ DIVISION #:_____

**FAX THE FOLLOWING 3 FORMS TO FADV USING THE FAX ORDER FORM FOR PRIOR EMPLOYERS**

1. **DISCLOSURE AND AUTHORIZATION FOR CONSUMER REPORTS (First Advantage Form)**
   - ☐ Applicant must print, sign name and date form.

2. **AUTHORIZATION TO RELEASE DOT DRUG/ALCOHOL RESULTS (First Advantage Form)**
   - ☐ Applicant must complete one form for each employer in the past three years.
   - ☐ Applicant to print name at top.
   - ☐ Applicant must list previous employer's name, address, phone number, and dates of employment.
   - ☐ Check box if applicant has not performed DOT functions in the last three years.
   - ☐ Check box regarding prior positive tests or refusals to test.
   - ☐ Applicant must sign, list social security number and date.

3. **AUTHORIZATION TO RELEASE SAFETY PERFORMANCE HISTORY (First Advantage Form)**
   - ☐ Applicant must complete one form for each employer in the past three years
   - ☐ Applicant must print name, social security number and date of birth.
   - ☐ Applicant must print his/her name authorizing release of information.
   - ☐ Check box if they have not performed DOT functions for the past three years.
   - ☐ Applicant must sign and date form.
   - ☐ Applicant must list previous employer's name, address, phone number, and fax number (if known).

**FAX THE FOLLOWING FORMS TO FADV USING THE DQ FILE FAX COVER SHEET**

4. **DRIVER'S APPLICATION FOR EMPLOYMENT (JJ KELLER FORM 15-F, 4 PAGES)**
   - ☐ Applicant must provide name, address and phone numbers for all employers as specified on the driver's application.
   - ☐ Applicant must provide list of all accidents and traffic convictions for the past three years.
   - ☐ Applicant must list all driver's licenses or permits held in the past three years.
   - ☐ Applicant must sign and date first and last page.

5. **CERTIFICATE OF COMPLIANCE WITH DRIVER LICENSE REQUIREMENTS (JJ KELLER FORM 90-5, 1 PAGE)**
   - ☐ Applicant must list driver's license number, state license issued in and expiration date.
   - ☐ Applicant must print their name.
   - ☐ Applicant must sign and date.

6. **RECORD OF ROAD TEST (JJ KELLER FORM 6B 278, 2 PAGES)**
   - ☐ Completed record of road test, completed and signed by the examiner.

7. **CERTIFICATE OF VIOLATIONS/ANNUAL REVIEW OF DRIVING RECORD (JJ KELLER FORM 643-F)**
   - ☐ Applicant must print name, social security number and date of hire.
   - ☐ Applicant must list city and state where working.
   - ☐ Applicant must list drivers license number, state license is issued in and expiration date.
   - ☐ Applicant must list any traffic violation in the past 12 months, if "none" check the box.
   - ☐ Applicant must date and sign form.
   - ☐ Bottom of form shall be completed and signed by the Area Manager or Safety Coordinator.

8. **OTHER REQUIRED PAPERWORK**
   - ☐ Please provide a legible copy of the driver's license. It must be on a piece of paper by itself.
   - ☐ Please provide a copy of the driver's current medical card. The medical card must be on a piece of paper by itself.

## FAX ALL ANNUAL UPDATES TO FADV USING THE DQ FILE FAX COVER SHEET

**9. ANNUAL AND ONGOING MAINTENANCE REQUIREMENTS**

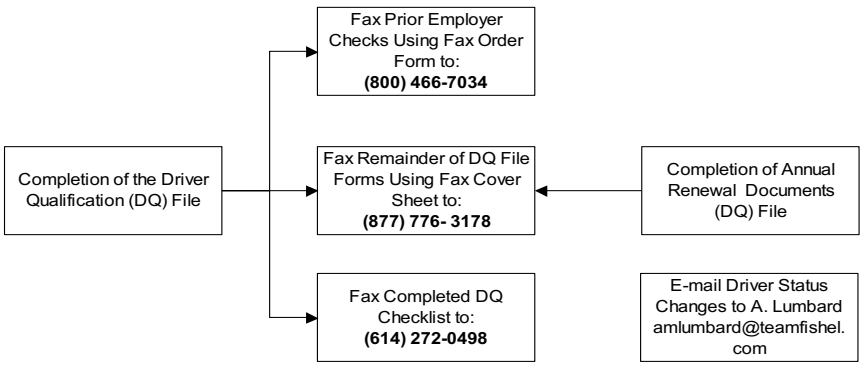
A. CERTIFICATE OF VIOLATIONS/ANNUAL REVIEW OF DRIVING RECORD

- ☐ Teammate must print name, social security number and date of hire.
- ☐ Teammate must list city and state where currently working.
- ☐ Teammate must list driver's license number, state license is issued in and expiration date.
- ☐ Teammate must list any traffic violations within the past 12 months, if "none" check the box.
- ☐ Teammate must date and sign form.
- ☐ Bottom of form shall be completed and signed by Area Manager or Safety Coordinator.
- ☐ This form must be completed annually.

B. ON-GOING MAINTENANCE AND RENEWAL OF DOCUMENTS

- ☐ Copy of driver's license at time of renewal.
- ☐ Copy of medical card at time of renewal.

## Process for Setting Up and Maintaining the Drivers Qualification File



## Module 4 - Vehicle Maintenance . . . . . (FMCSR, Sec. 396)

Team Fishel requires every CMV driver to perform daily inspections and document a Daily Vehicle Inspection Report (DVIR) for each Team Fishel vehicle that he or she operates, and a Trip Report when traveling out of state in a CMV.

### What an Area Needs to Know to Comply - Key Compliance Requirements

There are five Key Compliance Requirements all drivers need to know to stay safe and also to successfully comply with the DOT regulations.

**The Key Compliance Requirements include:**

1. Daily Vehicle Inspection Report (DVIR)
2. Driver's Trip Report Form
3. Vehicle breakdown and road repair
4. Roadside inspections
5. Annual vehicle inspection

**1. Daily Vehicle Inspection Report (DVIR)**

- Following are key points all drivers need to know and remember before they start driving CMVs for Team Fishel:
    - Team Fishel requires the use of a standard DVIR.
    - The DVIR must be filled out completely before a driver starts his or her on-duty driving of a vehicle or combination of vehicles that have a GVWR of 10,001 lbs. or more.
    - A driver is required to fill out a separate DVIR on each piece of equipment that he or she operates or tows during each working period.
    - The vehicle inspection should be done at the end of the driver's shift.
- The pre-trip inspection should include all items listed on the DVIR.
    - The driver must also note any defects that he or she discovers during the inspection.
    - The defects should be marked with an "X" and comments should be documented in the DVIR comment section.
    - The inspection should indicate if no defects were found. Check the DVIR form for directions.
    - The driver must sign and date the report.
- When a defect is discovered the driver must:
    - Notify the Shop Foreman and have him or her sign the report indicating that the defect has been reported.
    - Have the defect repaired BEFORE operating the vehicle, if the defect found is safety related.
    - Each driver must make sure that the cargo is properly distributed and secured. All equipment and cargo must be secured in accordance with the law to prevent leaking, spilling, blowing, falling or shifting.

- Once a driver is in the vehicle and has started to drive, he or she should re-examine his or her vehicle and cargo as follows:
    - after the first 25 miles driven, then
    - again after 150 miles driven, then
    - again after 300 miles driven, or
    - After each change of duty.

**2. Vehicle breakdown and road repair**

Team Fishel's goal is to minimize on-the-road equipment breakdowns by conducting detailed vehicle inspections and enforcing preventive maintenance programs.

- When a breakdown occurs:
    - The driver should safely stop and secure the vehicle. He or she should NOT leave any company vehicle unattended until the parking brakes have been properly set and the safety warning devices have been placed.
    - The driver must next report the vehicle breakdown to the office or the Fleet Department. When reporting the breakdown, he or she needs to provide the exact location of the vehicle including roads, highway route numbers, nearest mileage marker or exit, and the direction of travel. The driver should give the Fleet Department a general diagnosis for the cause of the breakdown.
    - The Fleet Department will determine the appropriate course of action and will communicate this information to the driver.

**3. Roadside inspections**

Roadside inspections are a fact of life for Team Fishel drivers. The DOT regulations authorize DOT agents to inspect Team Fishel's CMVs at any time.

- Team Fishel expects all drivers to behave in a professional and courteous manner when asked to participate in a roadside inspection. A driver must follow the directions given by the inspecting official and answer any questions he or she might be asked to the best of his or her ability in English. Failure to comply with an inspection or to answer the questions posed by the inspecting official will result in a disciplinary action.
- The driver must report the results of a roadside inspection to the Safety Coordinator as soon as possible.
- The Safety Coordinator should ensure that the Shop Foreman receives the original roadside inspection report, and that a copy is sent to the Area Manager as well as Director of Safety at Team Fishel.
- The Shop Foreman will ensure that any repairs noted on the inspection report are made as soon as possible. When all repairs are done, the Shop Foreman will sign the original inspection report and send it to the proper state authorities.
- If the vehicle or driver is placed out of service, the driver must call the Shop Foreman, Supervisor or Safety Coordinator immediately.
- A vehicle that has been placed out of service cannot be moved until the required repairs have been made.

The following are some key points regarding citations that every driver should know.

1) The driver is responsible for paying equipment-related fines received as a result of an inspection if the problem should have been discovered during a daily vehicle inspection and reported on the DVIR and to the Shop Foreman.

2) The driver is responsible for paying fines related to oversize/overweight citations received during an inspection if he or she did not address the oversize/overweight condition.

3) The driver is responsible for paying any fines related to driving citations for any infraction of a local or state regulation that he or she receives while operating a Team Fishel vehicle.

4) **ALL CITATIONS MUST BE REPORTED TO THE SAFETY COORDINATOR AS SOON AS POSSIBLE. The driver is required to complete the proper paperwork (see Appendix D - Driver's Mandatory Notification of Traffic or Criminal Violation) and submit it to the Safety Director if they are a CDL licensed driver.**

### DOT Out-of-Service Non-Compliance Violations

The following policies and procedures are the minimum disciplinary actions that should be taken after a Teammate has been taken out-of-service (OOS) for a DOT violation. The Area Manager may increase the severity of the disciplinary action at his or her discretion. DOT violations include but are not limited to violations of the Driver Fitness rules, load securement violations, serious traffic infractions that result in OOS, and vehicle maintenance issues including failure to accurately complete a vehicle inspection. Driver fitness violations consist of the following:

1. Driving a CMV without a medical card or without proper medical qualification.
2. Driving without a license or without the correct license for the vehicle being operated.
3. Failure to wear required corrective lenses while operating a CMV.
4. Violating an out-of-service order.
5. Crash reports citing medical reasons as a contributory accident factor.
6. Knowingly using an unqualified driver to operate a CMV.

### 5. Annual vehicle inspections

- All Team Fishel Commercial Motor vehicles must be inspected annually.
- Only qualified inspectors are allowed to perform an annual inspection.
- An annual inspection sticker must be affixed to the vehicle. The sticker is usually placed on the passenger side door and a copy placed in the vehicle glove box (see Appendix E – Annual Vehicle Inspection Report).

## How Best to Comply - Key Compliance Tools and Resources

There are some Key Compliance Tools and Resources that have been developed to assist a division in complying with vehicle maintenance and the required logs.

1. **DVIR:** This is a tool to help drivers keep track of daily vehicle inspection that is required by the FMCSA.
2. **Trip Reports:** This is another tool that helps track fuel and mileage utilized by each vehicle for out-of-state travel (for company tax purposes).

## Summary

Should opportunities or suggestions arise for improving any of Team Fishel's DOT-related processes, Teammates should discuss these with any member of the DOT Compliance Support Team. Opportunities for Improvement (OFIs) should be submitted to the Safety Director.