Job Hazard Analysis (JHA) or Activity Hazard Analysis (AHA)

Activity/Work Task: **Fire Sprinkler Systems**	Overall Risk Assessment Code (RAC) (Use highest code) **M / L**
Project:	**Risk Assessment Code (RAC) Matrix**
Contractor:	
Date Prepared:	
Prepared by: Christian Noriega	
Reviewed by (*Name/Title*):	
Notes: (Field Notes, Review Comments)	

Severity	Probability				
	Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	E	E	H	H	M
Critical	E	H	H	M	L
Marginal	H	M	M	L	L
Negligible	M	L	L	L	L

Review each **"Hazard"** with identified safety **"Controls"** and determine RAC (See above)

"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E = Extremely High

H = High Risk

M = Moderate Risk

L = Low Risk

Job Steps	Hazards	Controls	RAC
Material Handling	Slips, Trips, Falls, Sprains, Strains, Pinch Points, Cuts/Lacerations	Plan your work path or material handling. Use proper lifting techniques to lift material off ground or staging areas. When possible utilize carts, pulleys, racks, etc. Stage material so not to block the right of ways. at minimum always wear cut level 2 gloves and other proper PPE as required for that specific task.	**L**
Working off lifts – All Aerial Lifts (Scissor, Boom Lifts.)	Tip over, fall out, moving, pinch points, dropped items, struck by.	Always ensure workers are on flat surfaces. Use body harnesses and proper fall protection techniques when needed. Employee must be trained in Fall Protection. Watch for holes, trenches, people, or overhead obstructions when moving the lift. Do not operate lift if not certified to do so. Always wear PPE. Fill out lift inspection card prior to use each day. Follow manufacture requirements. SRL's only are, Keep working platform clean. Daily inspection of lift being used for that task is required. 100% tie off will be performs if GC requires on jobsite. 100% tie off in boom lift.	**M**
Driving on site	Accidents/injuries	Obey all traffic regulations. Drive defensively. Report violations. Company issues vehicles will be allowed. Personal vehicles if jobsite allows parking on site.	**L**

Use of Power Tools: Hammer Drills, Impacts, Bandsaw, Drills, etc.	Injury to self or others. Hand injury, eye injury, and electrical shock. Cuts, pinch points, sprains and strains, dropping, improper use of power tool.	Always wear proper PPE. Perform daily visual of the tool before each shift to ensure proper working condition, necessary guards, etc. Ensure cord is color coded and up to date. Ensure cord color coded and up to date. Always use GFCI protected outlet. Avoid using in awkward position. No field repairs will be tolerated. Use tag out tag when in need of repair.	**L**
Crane & Rigging. Hoisting Materials, Equipment or Tools	Falling or flying objects. Pinch points, strains and strains. Improper application of hoisting equipment.	Wear proper PPE when hoisting objects to an elevated work surface. Inspect all rigging equipment including slings for damage. Proper color inspection tape must be visible. Never lift a load that is in a bind. Be aware of your surroundings prior to lifting the load. Always release the stored energy of a load prior to disconnecting the hoist from the load. All riggers must be trained and documented.	**M**
Use of Material Lift (Roustabout)	Injury to self or others, overhead work, rigging failure.	Make sure load is secure and no personnel is allowed under the load during the lift. Use equipment when possible.	**L**
Heavy Lifting of Pipe and Fittings	Possible injury to back, arms, legs, strains and sprains.	Always perform stretch and flex prior to lifting heavy loads. Use proper lifting techniques. Get help whenever needed. Do not place pipe where it can roll or become unstable. Use proper ergonomic techniques.	**M**
Use of Forklift	Injury to others, pinch points, property damage.	Use the proper PPE for the task. Use a spotter when needed for unloading or travel. Tilt forks up to control pipe and be sure to center on forks. Fill out inspection card prior to use each day. Be certified in equipment you are operating. Be sure load is secure.	**M**
Crawl Spaces, Manholes, Attic, Confined Space (permitted & non-permitted)	Injury, overheating, quality of air, confusion, fear on tight spaces.	Under no circumstances are employees allowed to enter crawl spaces, manholes, attics, or confined spaces without a proper review by the project owner, GC and/or NSF safety department. Documentation must be in place that the area in question has been inspected and approved for entry priory to the commencement of work. In some cases, additional equipment and training shall be required before the entry of aforementioned work areas. (i.e. additional manpower, radios, air quality testing equipment, etc.)	**H**
High Pressure Hydraulic (Air) Testing	Injury do to break of high pressure hose. Pipe, or fittings.	Inspect equipment before each use. Slowly fill system with air slowly. Identify any sudden drops in pressure. Use perfume to location any small leaks if needed.	**L**
Cutting all thread rod	Cuts, electrocutions, flying debris. Eye injuries	Inspect band saw and electrical cord prior to use. Will place rod in chain vice. Ensure blade is sharp and in good condition. Ensure proper is worn during the entire process. Wear PPE, for the specific task.	**L**

Drilling overhead Hangers	Fling debris, Post Tension Cable, wrist injury, slips and falls, eye injury and exposer to silica dust.	Proper PPE worn at all times. Use proper manufactured provided handle assembly. Use face protection if needed. Use drill equipped with dust collection system & HEPA vac to manufacture specifications.	**M**
Working off ladders / Type 1A 300 cap or above. (No painters ladders, single step ladders, aluminum or wood ladders allowed on site.)	Fall hazard, struck by, misplacing of ladder to perform work.	Inspect ladder before use, use correct ladder for the job, make sure work area is clear, do not store material/tools on top of ladder, follow belt buckle rule – waist never above the top of the ladder, maintain three points of contact. Employees must be trained prior to use. Set up ladder on stable firm ground, do not set up in front of doorways. Inspect all components of ladder before use.	**M**
Entering Trailers, Tool Trailers, or Con-Ex Boxes	Trip Hazards, loose material.	Watch out for items that may have shifted, trip hazards, and low clearances. Place on level working areas.	**L**
Rigid 300 Power Machine usage	Cuts, flying debris, pinch points	Always wear proper PPE. Always inspect cords, chucks, oiler prior to use. Clean up and left-over debris or oil from the use of the machine after each shift.	**M**
Housekeeping	Slip, trips, fall, pinch points	Ensure material is neatly stacked and area is kept free of trash and debris. Store material on pallets or pipe racks when possible. Watch footing and hand placement.	**L**
Working in heat/cold	Sprains, strains, heat illness, Heat stress, heat stroke, cold exposure	Perform stretch and flex every morning controlling the heat source through use of insulation and reflective barriers exhausting hot air or steam away from the work area using airconditioned rest areas using fans to circulate the air reducing the physical demands of the work by using mechanical equipment increasing the frequency and duration of rest breaks scheduling tasks to avoid heavy physical activity during the hottest parts of the day providing cool drinking water or an electrolyte replacement drink, and encouraging its consumption using additional workers for the job or slowing down the pace of the work making sure everyone understands the signs and symptoms of heat stress wearing lightweight clothing, which allows moisture to evaporate quickly wearing reflective clothing or cooling suits for jobs that require them	**L**
Water Pressure Testing	Blowouts, flying objects, damage to material	Always perform air pressure check first. Fill system slowly and walk area looking for pinhole leaks or others. Identify shut off valves and drain locations. Ensure GC is aware of testing to notify other prior to the start of test.	**L**

Add Addition Information if Needed:	Add Addition Information if Needed: **Explain with other trades that we will be testing our system** **Walk the floor and look for any open outlets** **Have more than two guys on the work area during test** **Air test system at 15psi for 30min** **If after 30 minutes with air system holds put city water pressure** **We will have 50gal barrels ready in case of a leak**	Add Addition Information if Needed: **After 30min with city pressure system holding we will start pumping pressure to 225psi** **If anything, would go wrong manufacturing defaults or proper field install we will have access to a fast drain at this point all we can do is try to control the water by draining the system and using any auxiliary drains** **After 2 hours of having system holding at 225psi we have achieved our pretest and we can now set the system at regular city pressured**	

Equipment to be Used	Training Employee Name	Is Daily Inspection Requirements Y/N
Ladders:		**Yes**
Fork Lifts:		**Yes**
Scissor/Boom Lift:		**Yes**
Power Tools:		**Yes**

Power 300 Machine:		**Yes**
Fall Protection:		**Yes**

Signatures / Verification of Review Form Employee During Start of Project or Site Orientation		
Name (Print)	**Signature**	**Date**
JHA/ AHA Final Review and Approval		
Name (Print)	**Signature**	**Date**