VSC
Activity Hazard Analysis (AHA)

Activity/Work Task: **Install new fire protection system**

Project Location:

Contract Number:

Date Prepared:

Prepared By:

Superintendent:

Subcontractor:

Subcontractor Forman:

Reviewed by (Name/Title):

Notes: (Field Notes, Review Comments, etc.)
This is installation of water- based system in a multistory building. Primary access to upper floor levels is stairwell.

Risk Assessment Code (RAC) Rating Matrix

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

Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC rating (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) rating as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Rating

E = Extremely High Risk

H = High Risk

M = Moderate Risk

L= Low Risk

Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
Unload pipe from truck and distribute materials to predetermined locations. Materials and equipment delivered to the site prior to installation will be stored in warehouses, stores, lay down areas or elsewhere only with the approval of the project manager. Any materials or equipment off-loaded and left in a location not approved by the project manager will be moved to an approved location at the contractor/subcontractor's expense.	Back Injury. Hand injury Trip hazards & obstructed access.	Conduct warm-up & stretching exercises prior to lifting and follow proper lifting techniques as outlined in VSC's Lifting & Back Safety Policy. Request assistance from co-worker. Only carry one section of pipe at a time. Use fork lift or mechanical device when handling heavy material. Use techniques & methods described in VSC Material handling policy. ANSI Level 2 (or higher) cut-resistant gloves are required to be worn 100% of the time while on the project unless task-specific gloves are required while performing a specific task. All material lifts to upper floor levels will be done manually by carrying material up stairwell. Refer to VSC Material handling policy for stairwells	**L**
Job Steps (Work Sequences)			RAC
Unload equipment used for installation, including power threading machine to predetermined locations. *Inspect all tools as part of the tool selection process, and always prior to use for safe operation in accordance with the Owner's Manual.	Back injury & bodily strains Pinch points (fingers/hands).	Follow safe lifting techniques outlined in VSC's Lifting & Back Safety Policy to include: Take adequate breaks to rest your back. Bend knees to gain lift. (Lift techniques). Request assistance from co-worker. 4Wear properly fitted ANSI 2 minimum cut rated gloves. Avoid grabbing equipment where hand may be pinched in moving parts. Yellow barricade with tag posted around staging area of equipment and materials.	**M**
Install hangers used for piping system.	Flying Objects. Fall Hazard & overhead fall hazards	Use eye protection – Z87.1 labeled safety glasses with side shields at all times. When drilling overhead mandatory usage of mono- goggles or face shield in addition to safety glasses. Full body harness will be worn when required with appropriate lanyard and anchor points. Do not leave tools or material unattended in overhead area or top of ladder. Us two-man rule when lifting long section of pipe overhead.	**M**
Job Steps (Work Sequences)	Specific Anticipated Hazards		RAC

Working at elevations for installation of pipe and components of sprinkler system.	Fall and overhead fall hazards. Ladders	All employees will be required to wear and use a safety harness as required. Employees in any elevated work area of six feet or more from the ground, not protected by complete standard guard rails, and complete decking covering the entire work surface must use a harness. When working in areas within **fall hazard** of floor openings or floor edges that are not protected by complete standard guard rails or floor opening covers must use a safety harness. ***Missing and damaged guardrails or guardrails that do not comply with OSHA standards must be immediately reported to the GC.*** Ensure ladder of appropriate height is provided. Ladders with broken or missing rungs, steps, broken or split side rails, or other faulty or defective construction will be removed from project site.	**M**
Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
Cutting/Grooving Pipe for Fitting Connections Note: Fabrication of pipe and fittings will primarily be performed at floor level with a pipe vise and threading machine. Cutting & Grooving of pipe overhead is to be performed only when necessary. Cont. cutting grooving	Overhead fall hazard Insufficient lighting ripping Hazard Electrical Hazard	Overhead procedure: Elevation will be achieved via the use of ladders of appropriate height. Working at heights greater than 6 feet, use fall protection equipment required with tie-off to approved anchorage points by using appropriate lanyard. Each cut & groove procedure will be done as a two man task. End sections of pipe to be held by second technician to prevent dropping cut pieces of pipe. Two technicians will perform task of attaching manual groover to pipe. LED hard hat lamp, secured by clips or strap, to be worn to ensure adequate lighting. Floor Level procedure: Pipe threading machine to be inspected daily, and used in accordance with instructions outlined in the manufacturer's Owner's Manual. Auxiliary lighting to be used to ensure adequate lighting for task. Electrical connections for pipe threading machine and/or auxiliary lighting to comply with "use of Electrical tools, equipment and cords" outlined in Control Measure 9.1 of this JHA.	M

			M
Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC
Working near floor openings / holes	8Fall, struck-by	IMMEDIATELY report any missing and damaged hole covers or covers that do not comply with OSHA standards to GC. Use appropriate Personal Fall Arrest System (PFAS) and set up red danger tape until cover is repaired. Do not maneuver or position lift equipment over hole covers unless load capacity can be verified.	M
9 .) Use of Electrical tools, equipment, and cords.	9.1 Electrical hazards, Cords, tools, temporary power source.	9.1 100% usage of proper **GFCI and** Inspect tools daily. 9.2 Cord trees or plastic ties for hanging Cords will be used. Run cords along based boards and away from sharps and pinch points. All electrical tools and cords must be inspected prior to use. Extension cords must not exceed 100 ft in length and continuous.	M
Job Steps (Work Sequences)	Specific Anticipated Hazards	Controls	RAC

Competent Person:

Name & Title **Signature** **Date**