

# Job Hazard Analysis



University of Washington – Seattle Campus  
 Facilities Services – Campus Energy, Utilities & Operations  
 Seattle, WA 98195

Working Job Title: Shop 24 - Plumber/Pipe/Steamfitter – Sprinkler fitter

JHA Completed by Shop 24 Manager and CEUO Safety Engineer

Date: June 2022

The Job Hazard Analysis form is designed to help supervisors assess and address health and safety hazards that have the potential to cause serious injury or illness (e.g. power tools, electrical repairs). Supervisors can use this document to train staff on safe work procedures.

The information below is a good faith effort to identify hazards encountered by Shop 24 - Sprinkler fitter. If a specific job task is not listed below, contact your supervisor to determine if a specific job hazard analysis or work plan is required.

The baseline training requirements for this position are:

- Asbestos Awareness
- Driver Safety and Awareness Online
- Fire Extinguisher Hands On
- First aid & CPR
- Hepatitis B Vaccination (must be offered)
- Monthly shop safety meetings on PPE, shop safety standard operating procedures and SDS
- Bloodborne Pathogens for Non-Lab Online
- Ergonomic Online training (optional)
- Fire Extinguisher Online
- HazCom/GHS
- Lead Awareness Online
- Covid-19 Safety Training: Back to the Workplace

This document will serve as the certification of hazard assessment for personal protective equipment for the above working job title position.

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
Driving vehicles	<ul style="list-style-type: none"> <li>Bodily injury</li> </ul>	<ul style="list-style-type: none"> <li>Daily pre-trip vehicle inspection</li> <li>Follow all traffic rules</li> <li>Maintain current driver’s license</li> <li>Report problems with state vehicles</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>Driver Safety and Awareness</li> <li>Monthly shop safety meetings on PPE</li> <li>Seatbelt use policy</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>Seatbelt</li> </ul>
Computer Work	<ul style="list-style-type: none"> <li>Eye strain</li> <li>Ergonomic problems such as carpal tunnel and back problems</li> </ul>	<ul style="list-style-type: none"> <li>Adequate lighting</li> <li>Request on Ergonomic evaluation from EH&amp;S</li> <li>Review ergonomic info on EH&amp;S website</li> <li>Take frequent breaks/stretch/move</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>Ergonomic Online training (optional)</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>
General use of hand and power tools such as screwdrivers, wrenches, hammers, drills, reciprocating saw	<ul style="list-style-type: none"> <li>Bodily injury</li> </ul>	<ul style="list-style-type: none"> <li>Follow industry safety standards for operating power/hand tools</li> <li>Location of exits</li> <li>Location of fire extinguisher</li> <li>Location of first aid kit</li> <li>Safety Data Sheets (SDS) for chemical and products</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>Monthly shop safety meetings on PPE and SDS</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>Gloves (as needed)</li> <li>Hearing protection (as needed)</li> <li>Impact glasses (as needed)</li> <li>Substantial footwear</li> </ul>
Maintain inventory supplies	<ul style="list-style-type: none"> <li>Ergonomic problems such as carpal tunnel and back problems</li> <li>Work off ladders</li> </ul>	<ul style="list-style-type: none"> <li>Get help or use lifting tools for items exceeding 50 pounds or is an awkward shape</li> <li>Request an ergonomic evaluation from EH&amp;S</li> <li>Set-up workstation using ergonomic principles</li> <li>Take frequent breaks/stretch</li> <li>Use hand cart</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>Back protection &amp; Lifting Safety Online</li> <li>Ergonomic Online training (optional)</li> <li>Ladder Safety Hands On</li> <li>Ladder Safety Online</li> <li>Monthly shop safety meetings on PPE</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>Dusk mask (as needed)</li> <li>Safety glasses (as needed)</li> <li>Substantial footwear</li> </ul>
Cell phone usage	<ul style="list-style-type: none"> <li>Inattention leading to bodily injury</li> </ul>	<ul style="list-style-type: none"> <li>Be aware of your surroundings</li> <li>Don’t drive and talk unless utilizing a ‘hands-free’ device</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>Driver Safety and Awareness</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>

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Maintain, troubleshoot, test and repair piping for fire protection, and compressed air systems	<ul style="list-style-type: none"> <li>• Airborne contaminants (such as odors, mold, fume, animal dandruff, refrigerant leak)</li> <li>• Biological hazards (such as cooling tower –legionella, blood, needles, vials)</li> <li>• Compressed gasses (such as nitrogen)</li> <li>• Confined spaces (such as crawl space, ceiling plenums)</li> <li>• Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>• Fall hazard</li> <li>• Hazardous chemicals (such as solvents, degreasers, canned smoke, canned air)</li> <li>• Hazardous energy (mechanical, pressure (liquid lines))</li> <li>• Heat stress</li> <li>• Insufficient lighting</li> <li>• Material Handling (ie, hoisting/rigging)</li> <li>• Noise</li> <li>• Overhead equipment/hazards</li> <li>• Pedestrian traffic</li> <li>• Power/Hand tools</li> <li>• Regulated materials such as asbestos, lead, silica</li> <li>• Slip/trip/fall</li> <li>• Scaffolding</li> <li>• Vehicle traffic</li> <li>• UV light (radiant energy – radio frequency)</li> <li>• Work off/use of ladders</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid energized electrical work when possible</li> <li>• Barricades/signs/spotter (if applicable)</li> <li>• Building system shutdown</li> <li>• Check-in with the department / construction contact person / control room prior to work</li> <li>• Confined space permit (if applicable)</li> <li>• Cooling tower work practice (if applicable)</li> <li>• Energized electrical work permit &amp; work plan (if applicable)</li> <li>• Ensure work area is clear from spills and trip hazards</li> <li>• Fall protection work plan (if applicable)</li> <li>• 4-gas monitor (ie Bacharach)</li> <li>• Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>• If hot, drink water and take necessary rest breaks</li> <li>• Lift (MEWP: scissor, boom, bucket)</li> <li>• Lockout procedure, LOTO locks &amp; tags</li> <li>• Location of exits</li> <li>• Location of fire extinguisher</li> <li>• Location of first aid kit</li> <li>• Refrigerant leak SOP (if applicable)</li> <li>• Safety Data Sheets (SDS) for chemical and products</li> <li>• Shop safety standard operating procedures</li> <li>• This job position does not typically perform work on regulated building materials</li> <li>• Tool tethering and toe boards</li> <li>• Understand and implement industry safety standards for operating power/hand tools</li> <li>• Understand and implement regulatory practices / standards for operating a hoist</li> <li>• Use temporary lighting (such as flashlights, head lamps)</li> <li>• Water treatment plan</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>• Audiometric Hearing Test</li> <li>• Back protection &amp; Lifting Safety Online</li> <li>• Biosafety: Working in Non-Human Primate Areas</li> <li>• Compressed Gas Safety Online</li> <li>• Confined Space Awareness Online</li> <li>• Department specific training</li> <li>• Fall Protection</li> <li>• Hoisting and Rigging</li> <li>• Hearing Protection/Conservation Online</li> <li>• Ladder Safety Hands On</li> <li>• Ladder Safety Online</li> <li>• Lockout/Tagout Safety</li> <li>• MEWP training with boom, scissor &amp; aerial evaluation</li> <li>• Radio Frequency Radiation Safety Awareness</li> <li>• Refrigerant Monitoring</li> <li>• Scaffold Safety</li> <li>• Supv LOTO Field Evaluation</li> </ul> <p><b>PPE (as required unless noted as needed)</b></p> <ul style="list-style-type: none"> <li>• Animal Areas: head cover, shoe covers, gloves, coveralls, face shield – as required</li> <li>• Bump cap -as needed</li> <li>• Dust mask -as needed</li> <li>• Gloves – as needed</li> <li>• Head light / Flashlight / temporary lighting</li> <li>• Hearing protection - as needed</li> <li>• Impact glasses/goggles – as needed</li> <li>• Personal fall restraint/arrest equipment</li> <li>• Safety vest</li> <li>• Steel toe footwear</li> <li>• Substantial footwear</li> <li>• Any other PPE as specified by the department / construction site / lab entry sign/ site specific work plan</li> </ul>

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<p>Assist construction contractors (on their <b>construction sites</b>) with connection of new buildings and renovated buildings to the campus fire protection and compressed air systems.</p> <p>Activities include, but are not limited to, isolate systems, shutdown systems, inspect contractor's work and commission systems.</p>	<ul style="list-style-type: none"> <li>• Airborne contaminants (such as odors, fume, refrigerant leak)</li> <li>• Biological hazards (such as cooling tower –legionella, blood,)</li> <li>• Construction Activities</li> <li>• Compressed gasses (such as nitrogen)</li> <li>• Confined spaces (such as crawl space, ceiling plenums)</li> <li>• Electrically energized equipment (such as fire pump controller)</li> <li>• Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>• Fall hazard</li> <li>• Hazardous chemicals (such as solvents, degreasers, canned smoke, canned air)</li> <li>• Hazardous energy (mechanical, pressure (liquid lines))</li> <li>• Heat stress</li> <li>• Insufficient lighting</li> <li>• Material Handling (ie, hoisting/rigging)</li> <li>• Noise</li> <li>• Overhead equipment/hazards</li> <li>• Pedestrian traffic</li> <li>• Power/Hand tools</li> <li>• Regulated materials such as asbestos, lead, silica</li> <li>• Slip/trip/fall</li> <li>• Scaffolding</li> <li>• Vehicle traffic</li> <li>• UW light (radiant energy – radio frequency)</li> <li>• Work off/use of ladders</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid energized electrical work when possible</li> <li>• Barricades/signs (if applicable)</li> <li>• Building system shutdown</li> <li>• Check-in with the construction contact person prior to work</li> <li>• Confined space permit (if applicable)</li> <li>• Energized electrical work permit &amp; work plan (if applicable)</li> <li>• Ensure work area is clear from spills and trip hazards</li> <li>• Fall protection work plan (if applicable)</li> <li>• Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>• If hot, drink water and take necessary rest breaks</li> <li>• Lift (MEWP: scissor, boom, bucket)</li> <li>• Lockout procedure, LOTO locks &amp; tags</li> <li>• Location of exits</li> <li>• Location of fire extinguisher</li> <li>• Location of first aid kit</li> <li>• Refrigerant leak SOP (if applicable)</li> <li>• Safety Data Sheets (SDS) for chemical and products</li> <li>• Shop safety standard operating procedures</li> <li>• This job position does not typically perform work on regulated building materials</li> <li>• Tool tethering and toe boards</li> <li>• Understand and implement industry safety standards for operating power/hand tools</li> <li>• Understand and implement regulatory practices / standards for operating a hoist</li> <li>• Use temporary lighting (such as flashlights, head lamps)</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>• Audiometric Hearing Test</li> <li>• Back protection &amp; Lifting Safety Online</li> <li>• Compressed Gas Safety Online</li> <li>• Confined Space Awareness Online</li> <li>• Construction specific training</li> <li>• Fall Protection</li> <li>• Hoisting and Rigging</li> <li>• Hearing Protection/Conservation Online</li> <li>• Ladder Safety Hands On</li> <li>• Ladder Safety Online</li> <li>• Lockout/Tagout Safety</li> <li>• MEWP training with boom, scissor &amp; aerial evaluation</li> <li>• Radio Frequency Radiation Safety Awareness</li> <li>• Refrigerant Monitoring</li> <li>• Scaffold Safety</li> <li>• Supv LOTO Field Evaluation</li> </ul> <p><b>PPE (as required unless noted as needed)</b></p> <ul style="list-style-type: none"> <li>• Construction – hard hat, impact glasses/goggles, safety vest, gloves, substantial footwear – as required</li> <li>• Dust mask -as needed</li> <li>• Head light / Flashlight / temporary lighting</li> <li>• Hearing protection - as needed</li> <li>• Personal fall restraint/arrest equipment</li> <li>• Steel toe footwear</li> <li>• Substantial footwear</li> <li>• Any other PPE as specified by the construction site specific work plan</li> </ul>