

# Job Hazard Analysis



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

Working Job Title: Plumber/Pipe/Steamfitter - Meter Maintenance

JHA Completed by \_\_\_\_\_

Date: \_\_\_\_\_

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 a Plumber/Pipe/Steamfitter - Meter Maintenance. 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.

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>	<b>Task Specific Training</b> <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> <b>PPE</b> <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>	<b>Task Specific Training</b> <ul style="list-style-type: none"> <li>Ergonomic Online training (optional)</li> </ul> <b>PPE</b> <ul style="list-style-type: none"> <li>None</li> </ul>
General use of hand and power tools such as multi-meters, screwdrivers, wrenches, wire strippers	<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>	<b>Task Specific Training</b> <ul style="list-style-type: none"> <li>Monthly shop safety meetings on PPE and SDS</li> </ul> <b>PPE</b> <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>

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<p>Maintain inventory supplies</p>	<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 work station 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>
<p>Cell phone usage</p>	<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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<p>Install, maintain and repair piping systems and metering systems</p>	<ul style="list-style-type: none"> <li>• Airborne contaminants (such as vapor, asbestos, odors, mold, fume, refrigerant leak)</li> <li>• Biological hazards (such as sanitary sewer leaks, cooling tower –legionella)</li> <li>• Compressed gasses (such as welding gasses)</li> <li>• Confined spaces (such as crawl space, vaults, cooling towers)</li> <li>• Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>• Fall hazard</li> <li>• Hazardous chemicals (such as solvents, degreasers)</li> <li>• Hazardous energy (mechanical, heat, pressure (gas or liquid lines))</li> <li>• Heat stress</li> <li>• Insufficient lighting</li> <li>• Material Handling</li> <li>• Noise</li> <li>• Overhead equipment</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>• Vermin feces (such as bird or rodent)</li> <li>• Work off 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 prior to work</li> <li>• Confined space permit (if applicable)</li> <li>• Ensure work area is clear from spills and trip hazards</li> <li>• Fall protection work plan (if applicable)</li> <li>• Follow industry safety standards for operating power/hand tools</li> <li>• Follow regulatory practices / standards for operating a forklift</li> <li>• Get help or use lifting tools for items exceeding 50 pounds, or is an awkward shape</li> <li>• Hot Work Permit (ie soldering) if applicable</li> <li>• If hot, drink water and take necessary rest breaks</li> <li>• Lockout procedure</li> <li>• Location of exits</li> <li>• Location of fire extinguisher</li> <li>• Location of first aid kit</li> <li>• Pest Contractor – as needed</li> <li>• Refrigerant leak work plan (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>• Use portable refrigerant monitor where needed</li> <li>• Use temporary lighting (such as flashlights, head lamps)</li> <li>• Water treatment plan</li> <li>• Cooling tower work practice (if applicable)</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>• Asbestos Awareness</li> <li>• Audiometric Hearing Test</li> <li>• Back protection &amp; Lifting Safety Online</li> <li>• Bloodborne Pathogens for Non-Lab Online (for First Aid)</li> <li>• Compressed Gas Safety Online</li> <li>• Confined Space Entry /Hands On</li> <li>• Department specific training</li> <li>• Ergonomic Online training (optional)</li> <li>• Fall Protection</li> <li>• Fire Extinguisher Hands On</li> <li>• Fire Extinguisher Online</li> <li>• First aid &amp; CPR</li> <li>• Forklift Operator Safety</li> <li>• HazCom/GHS</li> <li>• Hearing Protection/Conservation Online</li> <li>• Hepatitis B Vaccination (must be offered)</li> <li>• Hoisting and Rigging</li> <li>• Hearing Protection/Conservation Online</li> <li>• Ladder Safety Hands On</li> <li>• Ladder Safety Online</li> <li>• Lead Awareness Online</li> <li>• Lockout/Tagout Safety</li> <li>• Monthly shop safety meetings on PPE, shop safety standard operating procedures and SDS</li> <li>• Refrigerant Monitoring</li> <li>• Scaffold Safety</li> <li>• Supv LOTO Field Evaluation</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>• Dust mask -as needed</li> <li>• Gloves - as needed</li> <li>• Hard hat – as needed</li> <li>• Head light / Flashlight / temporary lighting</li> <li>• Hearing protection - as needed</li> <li>• Impact glasses/goggles – as needed</li> <li>• LOTO locks or tags</li> <li>• Personal fall restraint/arrest equipment</li> <li>• Safety vest – as required</li> <li>• Steel toe footwear- as required</li> <li>• Substantial footwear</li> <li>• Tyvek / Shop coveralls – as needed</li> <li>• Any other PPE as specified on the department</li> </ul>

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<p>Assist construction contractors with the commissioning and/or verification of new campus piping distribution systems for new buildings and renovated buildings</p>	<ul style="list-style-type: none"> <li>• Airborne contaminants (such as vapors, asbestos, odors, mold, fume)</li> <li>• Biological hazards (such as cooling tower –legionella,)</li> <li>• Confined spaces (such as crawl space, vaults, cooling towers)</li> <li>• Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>• Fall hazard</li> <li>• Heat stress</li> <li>• Insufficient lighting</li> <li>• Noise</li> <li>• Overhead equipment</li> <li>• Power/Hand tools</li> <li>• Regulated materials such as asbestos, lead, silica</li> <li>• Slip/trip/fall</li> <li>• Work off ladders</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid energized electrical work when possible</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>• Ensure work area is clear from spills and trip hazards</li> <li>• Fall protection work plan (if applicable)</li> <li>• Follow industry safety standards for operating power/hand tools</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>• 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> <li>• Shop safety standard operating procedures</li> <li>• This job position does not typically perform work on regulated building materials</li> <li>• Use temporary lighting (such as flashlights, head lamps)</li> <li>• Water treatment plan</li> <li>• Cooling tower work practice (if applicable)</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>• Asbestos Awareness</li> <li>• Audiometric Hearing Test</li> <li>• Back protection &amp; Lifting Safety Online</li> <li>• Bloodborne Pathogens for Non-Lab Online (for First Aid)</li> <li>• Confined Space Entry /Hands On</li> <li>• Department specific training</li> <li>• Fall Protection</li> <li>• Fire Extinguisher Hands On</li> <li>• Fire Extinguisher Online</li> <li>• First aid &amp; CPR</li> <li>• HazCom/GHS</li> <li>• Hepatitis B Vaccination (must be offered)</li> <li>• Hearing Protection/Conservation Online</li> <li>• Hoisting and Rigging</li> <li>• Hearing Protection/Conservation Online</li> <li>• Ladder Safety Hands On</li> <li>• Ladder Safety Online</li> <li>• Lead Awareness Online</li> <li>• Monthly shop safety meetings on PPE, shop safety standard operating procedures and SDS</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>• Dust mask -as needed</li> <li>• Gloves - as required</li> <li>• Hard hat – as required</li> <li>• Head light / Flashlight / temporary lighting</li> <li>• Hearing protection - as needed</li> <li>• Impact glasses/goggles – as required</li> <li>• Personal fall restraint/arrest equipment</li> <li>• Safety vest – as required</li> <li>• Substantial footwear</li> <li>• Any other PPE as specified on the construction site</li> </ul>

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Inspect, monitor and document natural gas systems	<ul style="list-style-type: none"> <li>• Airborne contaminants (such as occupant concerns, odors, mold)</li> <li>• Biological hazards (such as needles, vials)</li> <li>• Confined spaces (such as crawl space)</li> <li>• Ergonomic problems such as lifting, awkward posture (such as lifting manhole cover)</li> <li>• Heat stress</li> <li>• Insufficient lighting</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>• Vehicle traffic</li> <li>• Vermin feces (such as bird or rodent)</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid energized electrical work</li> <li>• Barricades/signs/spotter (if applicable)</li> <li>• Confined space permit (if applicable)</li> <li>• Emergency Gas Shut-off lockout procedures</li> <li>• Ensure work area is clear from spills and trip hazards</li> <li>• Follow industry safety standards for operating power/hand tools</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>• Location of exits</li> <li>• Location of fire extinguisher</li> <li>• Location of first aid kit</li> <li>• Pest Contractor – as needed</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>• Use temporary lighting (such as flashlights, head lamps)</li> <li>• Water treatment plan</li> <li>• Cooling tower work practice (if applicable)</li> </ul>	<p><b>Task Specific Training</b></p> <ul style="list-style-type: none"> <li>• Asbestos Awareness</li> <li>• Back protection &amp; Lifting Safety Online</li> <li>• Bloodborne Pathogens for Non-Lab Online (for First Aid)</li> <li>• Confined Space Entry /Hands</li> <li>• Fire Extinguisher Hands On</li> <li>• Fire Extinguisher Online</li> <li>• First aid &amp; CPR</li> <li>• Flagger &amp; Traffic Control</li> <li>• HazCom/GHS</li> <li>• Hepatitis B Vaccination (must be offered)</li> <li>• Lead Awareness Online</li> <li>• Monthly shop safety meetings on PPE, shop safety standard operating procedures and SDS</li> </ul> <p><b>PPE</b></p> <ul style="list-style-type: none"> <li>• Gloves - as needed</li> <li>• Head light / Flashlight / temporary lighting</li> <li>• Impact glasses/goggles – as needed</li> <li>• Emergency Gas Shutoff locks or tags</li> <li>• Safety vest - as required</li> <li>• Steel toe footwear – as required</li> <li>• Substantial footwear</li> <li>•</li> </ul>