

# Job Hazard Analysis



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

Working Job Title: Pipefitter/Natural Gas and Metering (Shop 43)

JHA Completed by Ryan Trickett – Shop 43 Manager

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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 Pipefitter/Natural Gas and Metering (Shop 43/50M). 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:

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

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>

Job Tasks	Potential Hazard	Controls & Recommended Actions	Training and Personal Protective Equipment
<p>Maintain, troubleshoot and repair meter (set) for steam, condensate and natural gas.</p> <p>This does not include downstream of the building sub-meters.</p>	<ul style="list-style-type: none"> <li>Airborne contaminants (such as natural gas, odors, mold, fume, refrigerant leak)</li> <li>Confined spaces (such as tunnel)</li> <li>Ergonomic problems such as lifting, repetitive motion, awkward posture</li> <li>Hazardous chemicals (such as solvents)</li> <li>Hazardous energy (mechanical, heat, pressure (gas or liquid lines))</li> <li>Heat stress</li> <li>Insufficient lighting</li> <li>Material Handling (ie, hoisting/rigging)</li> <li>Noise</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 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 / building coordinator / control room prior to work</li> <li>Confined Space permit (if applicable)</li> <li>Ensure work area is clear from spills and trip hazards</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>Lifts (MEWP: scissor, boom)</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>Pest Contractor – as needed</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>Asbestos Awareness</li> <li>Audiometric Hearing Test</li> <li>Back protection &amp; Lifting Safety Online</li> <li>Confined Space Awareness</li> <li>Confined Spaced Hands On</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&amp; aerial evaluation</li> <li>Monthly shop safety meetings on PPE, shop safety standard operating procedures and SDS</li> <li>Operator Qualifications for Natural Gas Online (shop)</li> <li>Operator Qualifications for Natural Gas Field Evaluation (shop)</li> <li>Refrigerant Monitoring</li> <li>Scaffold Safety</li> <li>Supv LOTO Field Evaluation</li> </ul> <p><b>PPE (required unless noted as needed)</b></p> <ul style="list-style-type: none"> <li>Bump cap -as needed</li> <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>Safety vest – as needed</li> <li>Steel toe footwear – when required</li> <li>Substantial footwear</li> <li>Tyvek / Shop coveralls – as needed</li> </ul>
<p>Inspect contractor’s work and start up (commissioning) for metering systems when completed.</p> <p>This is for <b>new</b> buildings.</p> <p>This includes condensate, steam, natural gas and domestic water systems.</p>	<ul style="list-style-type: none"> <li>Airborne contaminants (such as natural gas)</li> <li>Construction Activities</li> <li>Confined spaces (such as tunnel)</li> <li>Ergonomic problems such as repetitive motion, awkward posture</li> <li>Hazardous energy (mechanical, heat, pressure (gas or liquid lines))</li> <li>Insufficient lighting</li> <li>Noise</li> <li>Power/Hand tools</li> <li>Regulated materials such as asbestos, lead, silica</li> <li>Slip/trip/fall</li> <li>Scaffolding</li> <li>Work off / use of 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 / control room prior to work</li> <li>Ensure work area is clear from spills and trip hazards</li> <li>4-gas monitor (ie Bacharach)</li> <li>Lockout procedure, LOTO locks &amp; tags – if applicable</li> <li>Location of exits</li> <li>Location of fire extinguisher</li> <li>Location of first aid kit</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 UW Tunnel policy</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>Confined Space Awareness Online</li> <li>Confined Space Hands On</li> <li>Fall Protection</li> <li>Hearing Protection/Conservation Online</li> <li>Ladder Safety Hands On</li> <li>Ladder Safety Online</li> <li>Lockout/Tagout Safety</li> <li>Operator Qualifications for Natural Gas Online (shop)</li> <li>Operator Qualifications for Natural Gas Evaluation (shop)</li> <li>Scaffold Safety</li> <li>Supv LOTO Field Evaluation</li> </ul> <p><b>PPE (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>Electrically rated tools</li> <li>Head light / Flashlight / temporary lighting</li> <li>Hearing protection - as needed</li> <li>Substantial footwear</li> <li>Shop coveralls – as needed</li> <li>Any other PPE as specified by the construction site</li> </ul>