

PURPOSE: Review each job task performed by employees to determine where job task hazards exist; providing recommendations for hazard elimination/protection, identifying appropriate personal protective equipment (PPE), and training to inform employees of appropriate safety standards and precautions.

Department: Facilities Operation and Development

Job Title: Facilities Mechanical Systems




Job Task: Performs tasks that ensure the uninterrupted operations of mechanical systems and equipment









Prepared By: Shelli Shoemaker

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REQUIRED PERSONAL PROTECTIVE EQUIPMENT *(choose all that apply for this task. If other, please type in specifics)*









 <p>Body Protection As Required by Job / Task - various</p>	 <p>Eye Protection Safety Glasses Face Shield</p>
 <p>Fall Protection Fall Protection System Required</p>	 <p>Foot Protection Safety Shoes</p>
 <p>Hand Protection Other</p>	 <p>Head Protection Bump Cap</p>
 <p>Hearing Protection As required by Job / Task - various</p>	 <p>Respiratory Protection As required by Job / Task - various</p>

 Task/Step 	 Hazard(s) 	 Control Methods 	 Additional Information 
<i>Break the job into a sequence of steps. Each of the steps should accompany some major task.</i>	<i>Identify the hazard(s) associated with each step. Every possible source of energy must be identified. Look at the entire environment to determine every conceivable hazard.</i>	<i>Decide what actions are necessary to eliminate, control, or minimize hazards that could lead to accidents, injuries, damage to the environment, or illness.</i>	<i>Put any additional information here that should be known by the employee performing the task.</i>
Working with steam heat, hot water pipes	Steam Other	Whenever possible, shut off steam in work area several hours prior. Verify gauges are working properly. Be aware of steam leaks.	Drain systems and/or pump before working on them. Release pressure slowly by nicking pipe. Put a barrier between you/pump.
Working with pneumatic parts	Steam Other	Slowly open valves to release pressure and wear safety glasses.	Other includes; Getting sprayed with hot or cold water, steam, refrigerates. Injuries from shooting parts from air build-up.
Working with power tools	Hand/Power Tools Slips, Trips, and Falls	Wear goggles and dust mask if applicable. Keep cords away from work area. Keep tools in good condition. Inspect tools before use.	Cuts, abrasive, electric shock, injury from flying debris, tripping over power cords. Verify that guards are working.
Using hand tools	Hand/Power Tools	Keep tools in good condition. Inspect tools before use. Wear safety glasses. Work away from yourself. Use normal caution required.	
Equipment Maintenance	Electricity Other	Shut off any power source before working, Utilize lock-out/tag-out Have appropriate PPE depending on job task.	Other includes; electric shock, parts shooting and striking worker, getting caught in equipment, cuts from sharp edges
Using scaffolding	Elevated Work Slips, Trips, and Falls	Inspect all equipment before using and make sure it is assembled correctly; wheels are locked. Use safety rails. OSHA 1910.27	Have a safe way to descend. Utilize proper PPE if required. Follow guidelines in OSHA 1910.28 regarding rails, toe-boards, etc.
Using ladders or step-ladders	Ladders Elevated Work	Inspect ladder before use. Use ladder at proper height. Make sure the ladder is assembled, locked and on level ground.	Do not exceed weight limit for ladder. Do not stand on the top or top rung of ladder. Use a spotter if higher than step ladder.
Working in mechanical rooms	Noise Other	Be aware of odors and evacuate if you smell gas; be aware of your surroundings, walk carefully, hearing protection if needed.	Other includes; Explosions from gas lines; burns from steam, hot water lines; slipping on water or oil; tripping, loud noise.
Soldering and brazing using oxygen/acetylene outfit	Hot Work Other	Check hose and connections for leaks prior to using, work in well-ventilated areas, Don't solder around flammable materials,	Use correct solder and PPE, obtain Hot Work Permit.
Preventive maintenance on all plumbing water and sewer lines	Other	Wear goggles and proper PPE to avoid cuts.	Other includes; cuts and abrasions; eye and skin injuries from debris.

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Using high-pressure water machine to clean drain.	Other Slips, Trips, and Falls	Inspect hose before use and replace it if it looks worn. PPE to include eye safety if required.	Other includes; Hose could break, causing severe injury to worker from high-pressure water.
Working with sewer machine and cable.	Electricity Other	Wear rubber gloves under work gloves; always wear special sewer machine gloves with the large sewer machine.	Stay clear of machine as much as possible to avoid getting caught, get it off the floor to avoid having machine in standing water.
Using air gun to unclog drains.	Other	Make sure hose is securely inserted in drain. Wear safety glasses.	Other includes; Hose popping out of drain and striking worker and/or shooting air at worker.
Working in extreme (hot/cold) temperatures	Cold/Heat Stress	Wear proper clothing, take frequent breaks, stay hydrated.	
Working in confined spaces	Confined Space Entry	Before working in confined area, verify that it is safe by monitoring air. Always ventilate area using fan.	Confined Space Permit must be obtained. Competent Person on the outside to monitor safety of occupants. OSHA 1910.149
Starting up and operating chillers: turning on pumps, opening valves, and checking gauges.	Other	Take time to open to the valves, wear proper PPE especially gloves.	Other includes; back strain, overexertion, burns.
Heavy lifting	Heavy Lifting	Use proper lifting techniques, limit duration of repetitive motion. Always know your weight limit, lift with your legs.	Get help if needed; heavy or awkward.
Operates University vehicles	Driving University Vehicles	Inspect vehicle before use. Use seat belts and safety prescription glasses. Stay alert for pedestrians, other vehicles and objects.	
May work with materials containing asbestos.	Asbestos Exposure	Never disturb materials containing asbestos unless properly trained. Use appropriate exposure control methods and PPE.	Call EHS regarding asbestos concerns.
Working around electricity	Electricity	De-energize equipment and work area. Always utilize lock-out/tag-out device. Verify equipment is de-energized. Utilize all PPE.	If equipment must remain on; wear safety glasses and leather gloves and have a spotter with you. Remove standing water.

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Storing or transporting compressed gas cylinders	Compressed Gases Other	Always install a protective valve cover and secure cylinders to a stand or wall, wear proper PPE. No lubricants on valves.	Other includes; Explosion of compressed gas, rupture of valve.
Battery work	Other	Wear eye protection, utilize safety junction box starting vehicle with jumper cables, and wear gloves and protective coveralls.	Other includes; Eye injuries, acid spills, explosion.
Steam cleaning	Steam Other	Wear protective gloves and safety glasses. Direct steam flow always away from body.	Other includes; Eye injuries, scalding burns.
Using grinders	Hand/Power Tools Other	Wear eye protection--always. Wear gloves--always. Keep guards properly adjusted. Tool rest adjusted to within 1/8 in.	Other includes; Eye, hand and bodily injuries.
Working with/around rotating equipment.	Other	Secure or remove loose clothing, jewelry or anything else that could be entangled in the rotating wheel.	Watch for pinch points.
Lifting, moving, loading material, tools, and parts; material handling hoist	Falling Objects Other	Never go under the load. Do not exceed load capacity. PPE includes hard hat, eye protection, gloves, and safety footwear.	Other includes; Hand Contusions All overhead hoists must be inspected and certified annually.
Inspecting pipe condition; including insulation	Asbestos Exposure Steam	Never disturb materials containing asbestos unless properly trained. Use appropriate exposure control methods and PPE.	Call EHS regarding asbestos concerns.

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REQUIRED TRAINING COURSES (choose all that apply for this task. If other, please type in specifics)

 Building Emergency Action Plan _____	 Hearing Conservation _____	 Asbestos Awareness _____
 Confined Space Entry _____	 Heat and Cold Stress _____	 _____
 Crane, Sling, and Hoist Safety _____	 Hot Work _____	 _____
 Electrical Safety/Arc Flash Awareness _____	 Lead Safety Awareness _____	 _____
 Elevated Work _____	 Legionella Awareness _____	 _____
 Fall Protection _____	 Lockout/Tagout _____	 _____
 Filtering Facepiece Respirator Training _____	 Personal Protective Equipment (PPE) _____	 _____
 Fire Extinguisher _____	 Respiratory Protection _____	 _____
 Flammable Liquids _____	 Shop Safety _____	 _____
 Hand and Power Tool Safety _____	 Silica Dust Safety _____	 _____
 Hazard Communication _____	 OSHA Class III Asbestos Course _____	 _____

I have read and understand the contents of the JHA and the controls required to mitigate the risks from the identified hazards.

Employee Name: _____

Supervisor: _____

Date: _____

Date: _____