

BOILER MECHANIC//SR. BOILER MECHANIC

Ref. Code: P-BM-7

MAINTAINING OPERATION OF STEAM REDUCING STATIONS		
Activity	Hazard Identification	Required Precautions
1. Driving to and from work site.	1. Motor vehicle accident; striking pedestrians, bicyclists, or individuals using rollerblades.	1. Wear prescription lenses, if required, and seatbelt. Verify that all equipment on vehicle is secured properly. Stay alert for pedestrians, bicyclists, and individuals using rollerblades.
2. Repairing and replacing steam valves.	2a. Severe steam burns.	2a. Turn off both inlet and outlet steam valves. Verify that the valves are not leaking.
	2b. Water hammer causing pipe to burst.	2b. When possible, open purge valves, which may be located on the strainer.
	2c. Lifting heavy weight can cause back strain or overexertion.	2c. Know your weight-lifting capacity and get help if needed. Lift using leg muscles. Keep back straight. Use mechanical lifting equipment.
	2d. Dropping valve.	2d. Safely lower valve to floor using cable or chain. Verify that valve is securely fastened before moving it. Do not stand under valve. Verify that cables and/or ropes are in good repair. Replace any that are frayed.
	2e. Cuts from frayed wire ropes.	2e. Inspect equipment before use and replace any frayed wires.
	2f. Pinching fingers.	2f. Handle materials carefully.
	2g. Slipping on grease drippings.	2g. Clean up any spilled oil using Virginia 10 or equivalent product.
3. Cleaning strainers.	3. Severe steam burns.	3. Isolate steam valves to gain access to strainer. Verify that the valves are not leaking.

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4. Using stepladder or mechanics ladder.	4. Ladder collapsing; slipping/falling from ladder.	4. Inspect ladder before use. Use ladder of proper height. Make sure ladder is properly assembled and locked and standing on level ground. Do not exceed weight limit for ladder. Do not stand on top of ladder or on top rung. Have coworker hold ladder.
5. Using extension ladder.	5. Ladder falling; slipping/falling from ladder.	5. Use bucket truck if possible. Inspect ladder before use. Verify that ladder is properly assembled and that it is securely positioned on level ground. Tie safety rope to hold ladder to roof. Use 1'-4' rule. Use OSHA decal to verify that ladder is in the proper position.
6. Using interior scaffolding.	6. Scaffolding collapsing; falling from scaffolding.	6. Verify that scaffolding is properly assembled and wheels locked. Use safety rails properly. Verify a safe means of climbing on/off scaffolding.
7. Using hand tools including large wrenches.	7a. Cuts, pinches, smashes, punctures, severing of fingers.	7a. Keep tools in good condition. Inspect tools before use. Ear safety glasses. Work away from yourself. Use normal caution required for all hand tools.
	7b. Wrench slipping and worker hitting self or others with wrench or dropping wrench on self or others.	7b. Wear hard hat. Handle tools carefully with dry gloves or hands. Make sure you have a firm footing so you do not fall.
8. Lifting heavy weight.	8. Back strain; overexertion.	8. Know your weight-lifting capacity and get help if needed. Lift using leg muscles. Keep back straight. Use mechanical lifting equipment. Ensure safe and adequate access to mechanical room.
9. Working in mechanical room.	9a. Slipping on water or oil on floor.	9a. Clean up any standing water or oil. Identify leak and repair it if possible.

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	9b. Getting burned by steam, hot pipes, hot water, or hot oil.	9b. Wear safety glasses, and optionally, ear protection, long-sleeve shirt and/or coveralls. Be aware of your surroundings and of possible leaks.
	9c. Lack of oxygen due to large refrigeration leak.	9c. Oil vapors indicate a possible refrigeration leak. Ventilate the area immediately. Test the air to verify safety before returning to the mechanical room to work. Follow OSHA recommendations and regulations for safe handling of Refrigerant 123. Contact Heavy Refrigeration Mechanics.
	9d. Explosion from leaking gas.	9d. Be aware of odors that could signify leaks. If you smell gas or oil, evacuate the area and alert the dispatcher.
	9e. Excessively hot temperatures; heat exhaustion.	9e. Take frequent breaks in cooler areas. Drink plenty of water.
	9f. Loss of hearing due to loud noise.	9f. Wear earplugs or earmuffs.
	9g. Tripping.	9g. Survey work area for hazards. Walk carefully.
	9h. Inhalation of dust.	9h. Wear a dust mask.
	9i. Electric shock; electrocution.	9i. Always use GFCI protectors.
	9j. Inhalation, skin exposure, or irritation to eyes from contact with soot, silica, waste oil contaminants, solvents, oil additives, and ceramic fibers.	9j. Wear proper protective clothing. Be aware of unusual odors (e.g., natural gas) that could signify leaks.
	9k. Damage to eyes from bright flame intensities.	9k. Wear eye protection.
	9l. Failed open valves will cause steam discharge that could cause oxygen deficiency, loud noise, lack of visibility, and excessive heat.	9l. Shut off steam to the building and isolate the leaking pressure-reducing valve.