BORETTI, INC.
BUSINESS SAFETY SOLUTIONS
Est. 2003

HOT WATER AND STEAM CLEANING SAFETY

Hot water or steam cleaning activities are commonly used on floors, walls, machines, and equipment. The potential for injury elevates as the steam or hot water temperature elevates. Steam cleaners are very effective cleaning tools that can eliminate germs, mold, and fungus.
There are other dangers as well, such as: burns, debris being pushed by the force of the steam, electrical shock, etc. It is important to wear PPE (Personal Protective Equipment) to prevent injuries.

Some of the effects of steam cleaning are:

- Steam cleaning can disinfect and/or sanitize most all surfaces.
- Steam quickly evaporates, so surfaces dry faster.
- Steam cleaning is very good for cleaning difficult places to reach like cracks and crevices.
- Steam can dissolve hard-to-remove substances such as wax, glue, gum, etc.

It is important to remember the safety factors involved in operating a steam cleaning unit or hot water. If using a steam cleaner, you should be trained and authorized to use it. Follow the manufacturer's instructions in its operation. Following are some helpful hints for safe operations.

Burns:

- Typically, hot water is near or above 180° F.
- Hot water can scold with temperatures as low as 120° F.
- If possible, attempt to clean with hot water with a temperature below 120° F.
    - At lower temperatures, PPE may not need to be worn, but rain gear is recommended.
- When working with soot, grease, light oils, and sticky surfaces, a temperature between 120°F to 180° F may be required.
- Wear appropriate PPE:
    - Face shield
    - Goggles
    - Rubber gloves
    - Boots
    - Apron
- If you are scalded, get under a cool emergency shower to prevent the burn from going deep.
- Scalding burns can be very serious.
- Never direct the hot water or steam flow toward any person.

High Pressures:

- Use only high pressure armored or wire-reinforced steam hoses, to eliminate the possibility of bursting under high pressure.
- Use only a hose that is rated for the pressure and temperature that you are working with.
- There is potential that if a hose bursts, it can spray steam or hot water on you or nearby workers.

Hose Maintenance:

- Inspect your hoses before use.
    - Ensure that the hose connections are properly installed and tight.
- If your hose is damaged, replace it.
- Do not attempt to repair a high-pressure hose or steam hose without proper training and authorization from the company.
- Leaks and failure can cause serious injury.
- Ensure that the hose does not become kinked or twisted so that it causes a blockage.
- When you are done with the cleaning job, roll or coil the hose and properly store it.

- If not properly stored, the hose can be damaged, and it also creates a trip & fall hazard.

Uncontrolled Hose:

- Be cautious around a steam hose that has been allowed to cool.
  - Water may have condensed inside the hose and could be released when the valve is opened.
  - This can cause the hose and nozzle to whip violently.
- If the hose connections separate or the hose breaks, it could whip the hose around and create a potential to injure someone.

Follow any established company safety rules for cleaning with hot water or steam. Burns can be very painful and take time to heal.

Electric Shock:

- Shut off all electrical power within the work area while cleaning with water or steam.
- Adequately cover electrical fixtures to prevent water from entering them.
- Never spray directly at or into any electrical equipment.
- Do not re-energize until you are certain that all electrical equipment or outlets are absolutely dry.
- When using a steam cleaning unit that is attached directly to a water source, ensure that the unit is ground-fault protected.
  - It is required because the water line makes for a very good ground.

Cleaners:

- Be aware of the potential danger in detergents and alkaline cleaning materials.
  - They can cause chemical burns as well as heat burns.
- Many cleaning agents may have corrosive properties that could damage body tissues, especially the eyes.
  - Even contact with diluted solutions can cause injury.
  - When mixing, add the alkaline cleaners to the water gradually.
  - Dumping a large quantity in all at once could result in an explosive reaction.
  - Prevent contact with your skin, wear appropriate PPE, especially eye protection.
  - Avoid breathing the mists and powders.
- Know the location of emergency eye/shower stations in the work area.

Poor Visibility:

- Using steam cleaning equipment can reduce visibility.
- Operators should direct the steam away from themselves.
- Plan the work so you do not have to walk into a vapor cloud, where you might trip or slip and fall.
- If you become enveloped in a cloud, stop work, wait for it to dissipate and warn other workers away.

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GENERAL SAFETY REVIEW

This is a time to review all safety concerns, not just today's topic. Keep your notes on this page before, during and after the safety meeting.
Are you aware of any safety hazards from any other crews? Point out any hazards other crews are creating that this crew should know about. Tell the crew what you intend to do about those hazards.
Do we have any other safety business? Discuss any past issues or problems. Report any progress of investigations and action taken.
Have there been any accidents, near misses or complaints? Discuss any accidents, near misses, and complaints that have happened since the last safety meeting. Also recognize the safety contributions made by members of the crew.
Please remember, we want to hear from you about any health and safety issues that come up. If we don't know about problems, we can't take action to fix them.

ENDING THE MEETING

Circulate Sign-Off Form.
Assign one or more crew member(s) to help with next safety meeting.

Instructor: _____ Date: _____

Safety Recommendations:

_____

_____

Job Specific Topics:

_____

_____

Comments:

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Attended By (print & sign name):