Health and Safety Considerations for Plumbing and HVAC Professionals During Inspections

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With the rapid expansion of COVID-19 around the globe, there is a heightened awareness of the viruses, bacteria, and pathogens we live with every day of our lives. Plumbing, Heating, and Air Conditioning professionals are one of the most important lines of defense we have for protecting us from the threat of harm from these microscopic organisms. There has never been a more critical time to work together to provide and maintain a safe built environment. Working in hazardous locations isn’t new to the construction industry. It’s just as important now as it has always been to remember that good communication is the key to success.

Whether you are a plumbing or mechanical contractor, architect or engineer, or a building official, it takes a team approach to protect the general public from these microorganisms. The systems that contractors install are designed by architects and engineers to separate the microscopic world of viruses, bacteria, and pathogens from overtaking us in the world we live in; our homes, workplaces, places of worship, and other places we frequent during our daily life. Our plumbing, heating, and air-conditioning professionals ensure that these systems are installed, operated, and maintained properly so that they provide the protections for which they were designed. The team approach is an effective management strategy which enables the architect, design engineer, contractor, and building department to maximize the value of their investment through greater control during the design, installation, and inspection processes for various projects.

Throughout the life of a project, Building Officials can be key to improving communications with architects, engineers, and contractors. Bigger projects may warrant meetings between plan reviewers, field inspectors and contractors. Inspectors also need to be facilitators. The days of “I am the only Sherriff in town” are gone. Inspectors must provide time for phone conversations, counter meetings, and field meetings for larger and more complicated jobs.

The importance of scheduling inspections cannot be overlooked.

- Are off hour inspections the answer to parking issues, accessibility and shift work?
- Are engineers comfortable in paying a special fee to building departments for project meetings?
- Does the permit reflect the correct job address, specific tenant, or where to meet for the inspection?

All of these are questions that should be examined.

Let’s explore some inspection tips that could help everyone.

1. Having a point of contact (Person & Place).
2. Provide access to all areas for inspection (Tenant improvements could require access to at least three floors to inspect).
3. Alert inspection staff to designated parking areas.

4. Make inspection staff aware of any building security issues.

5. Establish who is responsible for the minimum plumbing fixture requirements (Architecture/Engineer).

6. Ethics and integrity should be part of everyday life, no matter where in the construction diagram you fall.

Looking at construction work that typically is done in existing hospitals, nursing homes, urgent care clinics, funeral homes, etc. will help us understand the importance for proper planning and scheduling in high risk areas. The need for a hazard analysis of the work to be performed by the plumbing and mechanical tradesperson is just as important for the building official that may be inspecting the work. A hazards analysis of different types of construction sites provides identification and controls for hazards expected to be encountered while performing work in these types of facilities where the presence of germs or other pathogens can be more prevalent.

When working or inspecting in any area you need to be aware of the risk. The following are recommendations only and your employer should be consulted for actual policy.

- Speak with staff or customer to identify the risk in the area to be worked or inspected.
  - What is the area, room or equipment used for?
  - Is there an elevated risk of contact with viruses, bacteria, and/or pathogens?
  - If yes, can it be mitigated (cleaned or sanitized) before starting work (performed by others)
  - If no, can the risk be mitigated through proper use of personal protective equipment (PPE)?
- Inspectors should be aware of their cities policy regarding high risk work areas?
- Workers should use PPE including masks, respirators and rubber gloves when accessing high risk areas.
- It is recommended that you change gloves and respirators frequently or as they become soiled.
- Avoid spending unnecessary time in waiting areas or patient areas.
- Maintain at least 6 (six) feet of distance between yourself and others, especially anyone who is coughing or sneezing, to avoid breathing in liquid droplets they may have exhaled or expelled.
- Make sure to follow good respiratory hygiene by covering your mouth and nose with a bent elbow or tissue when you cough or sneeze and then dispose of the used tissue immediately.
- Regularly and thoroughly clean your hands with soap and water for at least 20 seconds. If soap and water are unavailable, wash your hands with an alcohol-based rub containing 60% alcohol or greater. This is especially important after using the bathroom, blowing your nose, coughing or sneezing and before and after eating.

- Exercise caution and maintain 6 foot from plumbing vents and mechanical exhaust vents.

- If you are sick, protect others by not entering these facilities or coming to work.

- Contractors should clean off any equipment that was used or stored inside of facility during their visit.

Roof tops have always been considered high risk areas. Working near plumbing vents and HVAC equipment of healthcare facilities can be dangerous. The infectious Control Risk Assessment (ICRA) Programs for facilities must be followed. For additional information the ASSE Series 12000 Standard is available for free at https://asse-plumbing.org/12000-2018. The Center for Disease Control and Prevention (CDC) provides additional preventive protective measures while at work. The information can be obtained at www.coronavirus.gov. You can also contact the Department of Labor, Occupational Safety and Health Administration website for additional information regarding high risk jobs at www.osha.gov.

Stay Safe!