Facilities and Maintenance

INCIDENT

A hospital maintenance worker did some plumbing on a leaking sewer pipe without wearing a complete outfit of personal protection equipment. The line broke and he was partially soaked in sewer water. He lived for days in fear until medical testing assured him that he apparently had not caught a disease from being exposed to bodily-fluid pathogens; he was lucky.

NEED TO KNOW

A maintenance worker, is responsible for a lot – providing a steady flow of water, heat and cooling as well as upkeep of every part of the workplace. As a result, you need to know about a broader range of safety issues than probably anyone else who works in the facility.

These workers are in all areas of the facility encountering hazards from power equipment to paint vapors and are exposed to injury from electrocution, falls, chemical splashes, confined spaces and other dangers.

The National Safety Council reports that 104 million production days are lost due to work related injuries. The causes of workplace injuries are not as outlandish as you might think. They can include overexertion, contact with objects and equipment and slips, trips, and falls.

The facilities team is the front line for inspecting and fixing building issues and keeping the entire company safe. However, it is also equally as important to put the procedures in place to keep the team itself safe.

Exposure to asbestos is significant. This exposure can be the result of performing tasks, such as repairing pipes, stringing telephone cable or installing new electrical wires.

The asbestos hazard

Employees who work in areas that contain asbestos, but who do not remove asbestos, must be trained as associated workers. If you are an associated worker, you need initial training in the hazards of asbestos and the ways to protect yourself and others from exposure. Included in this training, which must be repeated annually, will be methods on the use of respirators, cleaning up loose asbestos and establishing protective zones to prevent exposure to others in the area. Typically, asbestos removal on a large scale is performed by outside contractors who have been specially trained on how to perform this work in a safe manner.

Exposure

The work of maintenance employees carries them throughout the facility. Maintenance workers in a healthcare facility, for example, travel through patient care areas and into Maintenance Workers Must Maintain Safety laboratories. They have the potential of exposing workers to a number of hazards, such as infection, vapors emitted from glue in floor tiles or the vapors of paint used to freshen up walls.

Communicate the hazards

Under the “Hazard Communication Standard,” as dictated by the Occupational Safety and Health Administration, an important obligation exists. This obligation requires maintenance staff to discuss hazards with managers and other workers so they can be prepared to take action to protect themselves.

Maintenance workers may be exposed to a variety of chemicals used in their tasks or used in the areas they work in. Not only must the maintenance department share information about the work it performs and the material sit uses, workers in other departments must warn maintenance employees about the potential hazards they will be exposed to.

BUSINESS / REGULATIONS

According to OSHA’s website, the Occupational Safety and Health Administration (OSHA) was created by congress “to assure safe and healthful working conditions for working men and women by setting

and enforcing standards and by providing training, outreach, education, and assistance.” They have established common sense standards, law enforcement actions, and compliance assistance. These programs have prevented injuries and illnesses, and saved lives.

Maintenance workers are among the many workers that are exposed to workplace hazards on a daily basis. OSHA aims to protect them by providing access to information for vulnerable workers in high-risk jobs. Information ranges from raising awareness of job hazards to safe chemicals handling and promotion of workplace best practices. Under OSHA law, it is an employer’s responsibility to provide a safe and healthful workplace for its workers.

OSHA Requirement	Maintenance Action
Control of hazardous energy (lockout/tagout)	Use loto software to develop proper procedures for each piece of equipment where hazardous energy is a concern
Restore all fire detection systems and components to normal operating conditions as promptly as possible after each test or alarm	Assure availability of any necessary spare devices and components that are normally destroyed during testing
Ensure that powered industrial truck operators are competent	Conduct any training under direct supervision of persons who have knowledge, training, and experience, and only in locations where other employees will not be exposed to danger

Enforcement

Carrying out OSHA’s mission requires enforcement. Inspections are carried out without advance notice to employers. These can be done via telephone, onsite, or fax. Trained compliance officers inspect for imminent danger, fatalities, hospitalizations, worker

complaints, specific hazards, and/or follow up inspections.

Workers or representatives of workers may file complaints to OSHA when they believe there is a serious hazard in the workplace or their employer is not compliant with OSHA standards. It is a violation of OSHA for an employer to retaliate against a worker that files a complaint.

When inspectors find violations onsite, OSHA may issue citations or fines to employers. Citations include methods that an employer may use to fix a problem and the date the corrective actions must be completed by.

STATISTICS

The following information is provided by the Occupational Safety and Health Administration (OSHA).

- 4,821 workers were killed on the job in 2014.
    - On average, more than 92 a week or more than 13 deaths every day.
    - Worker deaths in America are down on average, from about 38 worker deaths a day in 1970 to 13 a day in 2014.
- Fatal work injuries involving contractors accounted for 17 percent of all fatal work injuries in 2014.
- One in five worker deaths in 2014 were in the construction industry.

Grounds maintenance workers accounted for 244 workplace fatalities in 2017, a small decrease from the previous year at 247. This was still the second-highest total since 2003. Falls from trees accounted for a total of 36 deaths and 35 more were as a result of being struck by a fall tree/branch.

A total of 1,142 grounds maintenance workers (GMWs) were fatally injured at work during 2013–2018, an average of 190 each year. GMWs accounted for 3.4% of all occupational fatalities, and 31% of those GMWs were Hispanic or Latino. Approximately 83% of the Hispanic or Latino GMWs who died were born outside the United States. In 2008, approximately 1.52 million persons were employed

as GMWs, constituting 1.0% of the U.S. workforce. During 2003–2007, an average of 13.3 per 100,000 employed GMWs died each year, compared with an overall rate of 4.0 fatalities per 100,000 U.S. workers. The rate of on-the-job fatal injuries among GMWs has remained elevated relative to other workers for >20 years. This report characterizes events leading to GMW fatalities and differences in fatality characteristics across demographic groups among GMWs, based on an evaluation of 2003–2008 data from the U.S. Department of Labor's Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) program. The report also identifies workplace interventions that might reduce the incidence of fatal injuries. Major events leading to GMW occupational fatalities included transportation incidents (31%), contact with objects and equipment (25%), falls (23%), and traumatic acute exposures to harmful substances or environments (e.g., electrocution and drowning) (16%). To reduce the incidence of such fatalities, employers, trade and worker associations, and policy makers should focus on effective, targeted workplace safety interventions such as frequent hazard identification and training for specific hazards. Diversity among the populations of workers requires use of culture- and language-appropriate training techniques as part of comprehensive injury and illness prevention programs.

PREVENTION

There is a significant role for maintenance workers in safety compliance.

The role of maintenance in safety compliance

Establishing a safe and healthy work environment can substantially reduce the amount and severity of workplace injuries and illnesses. A comprehensive program that includes management support, worker cooperation, hazard identification, hazard prevention, education and training, and program evaluation/improvement is key to maintaining a safe and healthful workplace.

Here is an overview of those these elements:

- **Management commitment and employee involvement**: State and define clear and specific worksite policies to facilitate clear understanding of onsite personnel; provide top level leadership involvement when implementing programs
- **Worksite analysis**: Conduct baseline surveys for safety and health and periodic update surveys; analyze injury and illness data trends over time to help identify root causes and prevention measures
- **Hazard prevention and control**: Establish work practices and policies early and ensure understanding and compliance; keep facility, equipment, PPE's in proper condition; plan and prepare for emergencies
- **Safety and health training**: Training helps identify responsibilities of both management and employees to promote accountability and compliance; educational programs should be designed to ensure understanding and awareness of hazards and proper methods of avoiding them

PERSONAL RESPONSIBILITY OF MAINTENANCE WORKERS ARE:

Wear the gear

Face shields, water-repellant boots and coveralls are part of your protection against a sewer spill. From safety-toed boots to hardhat, you need personal protection equipment (PPE) suitable for each task. Pulling nails requires a different set of gloves than cleaning up a chemical spill. You need to have safety glasses and wear them, as well as wear earplugs or earmuffs when needed.

Hazard communication

If a department or laboratory in the facility uses chemicals, make sure you know where and what the chemicals are. Read the material safety data sheet for each chemical you use, and make sure you know where to find the MSDS fast in an emergency.

Electrical

Obey signs warning of any electrical hazard. Don't work with electricity if not qualified to do so. Don't stand on an aluminum ladder when working near electrical wiring.

Lock out

When working with power equipment and power sources, beware of unexpected release of energy. The lockout/tagout system protects you and others, and safety laws require it.

Beware asbestos

You may encounter asbestos in an older facility while stringing telephone cable or installing electrical wires. Likewise, renovations may spill loose asbestos. Employers should hire outside contractors for large-scale removal of asbestos. Even if you do small-scale removal, you need special training and authorization. Learn how to establish a protective zone so others are not exposed either.

MORE PREVENTION:

- The most important quality when choosing safety equipment is if your employees want to actually use and wear it. If they don’t like the way it fits or feels, employees will be less likely to use the equipment and therefore will be more likely to put themselves in danger.
- Safe habits can slip, so training sessions and talks should occur individually when people start, and team-wide throughout the year – such as at the start of each season. If any procedures change, new equipment is introduced, or if an injury occurs, a safety training should be scheduled for the entire team immediately
- employees that have been working at the same facility for some time may feel more comfortable on the job and might relax their commitment to safety equipment and procedures. Even the best trained and equipped team needs to be monitored to ensure that workers are wearing what they should be wearing.
- Maintaining employee safety might seem like an overwhelming job, but as you can see facilities managers can prevent all types of workplace injuries. All you have to do is ask the

right questions, provide the right tools, and always stay vigilant.