9 Construction and Maintenance Safety

Campus and Facilities Services' employees are often involved in tasks common to the construction industry. The hazards and risks are similar. Special care is required to operate heavy equipment in a safe manner to eliminate unnecessary exposure of personnel to moving equipment and materials and to safeguard nearby utilities and other property.

Each employee must be alert not only for his/her own safety on a construction or maintenance job, but also for the safety of others with whom he/she is working.

High pressure gas lines, underground and overhead electrical lines, unstable trench walls, moving equipment and vehicle traffic are all hazards commonly encountered in construction work. Each presents special hazards and a safe job requires all employees to be especially familiar with safety rules and procedures to reduce the risk of injury to themselves and others.

9.1 Safety Rules for Construction and Maintenance Safety

SR 9.1.1 Begin an excavation below existing grades only with specific authorization and direction of your supervisor. The supervisor should not allow you to begin work until all local utilities have been notified and they have located and marked their utilities.

SR 9.1.2 Excavate below existing utility lines or adjacent to poles and guy wires only when they have been adequately protected and supported.

SR 9.1.3 Do not operate moving equipment within 10 feet of overhead electrical wires. Follow the electrical safe work practices required in OSHA 1910.333SR

SR 9.1.4 Properly install or use signs, flags, lights and barricades on all jobs in or adjacent to a public right-of-way or public property.

SR 9.1.5 Do not leave open manholes or excavations or other hazards unattended until they are barricaded and marked to prevent persons from accidentally entering the area.

SR 9.1.6 Whenever working exposed to moving traffic such as painting traffic lines, tarring cracked pavement, cleaning sewer lines, etc., wear a green-yellow safety vest.

SR 9.1.7 Wear safety glasses or goggles if exposed to dust or flying debris.

9.2 Gas Lines

If a gas line is broken:

a. Shut off all engines and motors in the area.
b. Remove or extinguish all open flames.
c. Notify your supervisor and the Office of Public Safety, who will in turn notify the Police Department, the Fire Department and the gas company.
d. Do not cover up the damaged or broken line.
e. Keep people and traffic out of the area and move to an uphill/upwind location.
f. Do not leave the area until relieved by the gas company personnel or proper public safety personnel.

9.3 **Electrical and Telephone Lines**

a. Consider all electrical and telephone lines as hazardous. Telephone lines can be energized with high voltage if crossed with a power line in an accident.
b. If machinery comes in contact with energized wires, the operator or crew members should warn all persons to keep away. In these cases, operators must stay on the equipment unless it is on fire. If it is necessary to jump clear of the equipment, jump from the equipment to the ground and not have contact with both the ground and the equipment at the same time. Keep persons away from the equipment by posting a guard.
c. Be especially careful to avoid buried telephone lines which may be very shallow.

9.4 **Aerial platforms and baskets**

**NOTE:** Please refer to the Aerial Platform Lift Safety Programs for more details

a. Operate only with outriggers in place (if provided).
b. Wear a safety harness securely attached to the platform or basket by a safety line.
c. Operate near overhead lines only when a signal person can direct the operator if his/her vision is obscured. Maintain 10 feet safety zone between platform and power lines.

9.5 **Warning devices**

a. Flag persons must wear green-yellow safety vests and clearly direct on-coming vehicles to stop, slow or detour by the use of signs, lights or signals. A flag person who gives sloppy or careless instructions is as bad as no flag person.
b. Flag persons and warning signs used on a moving job such as crack filling must be constantly relocated as the work moves forward.
c. Warning devices used during the day must be replaced or supplemented by lighted devices at night if continued protection of the job is necessary.