

1. Purpose: To reduce the causes of fire, prevent loss of life and property by fire, and to comply with the Occupational Health Administration's (OSHA) standard on fire prevention, [29 CFR 1910.39](#). It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.
2. Scope: This Program applies to all VCU employees in an effort to minimize the threat of fire to employees, visitors, and property. VCU complies with all applicable laws, regulations, codes and best practices pertaining to fire prevention.

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4. Responsibilities:

- a. Safety and Risk Management (SRM) is responsible for:
 - i. Provides fire extinguishers to VCU community;
 - ii. Tests fire alarm and sprinkler systems;
 - iii. Coordinates with Facilities Management and outside contractors to ensure proper function of fire systems;
 - iv. Managing the Program and maintaining all testing records pertaining to the Program;
 - v. Develop and administer basic fire prevention training;
 - vi. Identifying and assisting with abating fuel source hazards by conducting occupational and life safety inspections and making recommendations.
- b. Supervisors are responsible for:
 - i. Ensuring employees complete initial assignment fire safety training and providing additional fire safety training as necessary;
 - ii. Notifying their employees when changes in the workplace increase the risk of fire;

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- iii. Taking appropriate disciplinary action whenever an employee fails to follow precautions outlined in this Program;
 - iv. Assisting SRM with identifying and abating fuel source hazards;
 - c. Building Managers are responsible for:
 - i. Addressing all violations identified on building inspection reports and responding as appropriate; and
 - ii. Serving as liaison between their respective areas and SRM
 - d. Facilities Management is responsible for:
 - i. Coordinates with SRM and outside contractors to ensure proper function of fire systems;
 - ii. Ensuring all gas leaks are repaired immediately;
 - iii. Maintaining all applicable equipment according to manufacturer's instructions; and
 - iv. Addressing all maintenance violations identified on building inspection reports and responding as appropriate.
 - e. Employees are responsible for:
 - i. Completing initial assignment fire safety training;
 - ii. Reporting potential fire and fuel source concerns to their supervisor; and
 - iii. Complying with all applicable parts of this program, including knowing how to prevent fires and responding during a fire emergency by immediately evacuating the premises.
5. Hazard Mitigation
- A. Good Housekeeping - To limit the risk of fires, employees shall take the following precautions:
- 1. Minimize the storage of combustible material;
 - 2. Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions;
 - 3. Dispose of combustible waste (oil soaked rags or paper) in covered, airtight, metal containers;
 - 4. Use and store flammable materials in well-ventilated areas away from ignition sources;
 - 5. Use only nonflammable cleaning products;
 - 6. Keep incompatible (i.e., chemically reactive) substances away from each other;

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9. Keep equipment in good working order, i.e. inspect electrical wiring and appliances regularly and keep motors and machine tools free of dust and grease;
10. Ensure that heating units are safeguarded;
11. Report all gas leaks immediately. Facilities Management shall ensure that all gas leaks are repaired immediately;
12. Repair and clean up flammable liquid leaks immediately;
13. Keep work areas free of dust, lint, sawdust, scraps, and similar material;
14. Take care not to overload circuits with multiple pieces of equipment; and
15. Turn off electrical equipment when not in use.

B. Maintenance/Inspections: The following equipment is subject to inspection, testing and maintenance:

1. Equipment installed to detect fuel leaks, control heating, and control pressurized systems
2. Portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems
3. Detection systems for smoke, heat, or flame
4. Fire alarm systems
5. Emergency backup systems and the equipment they support.

6. Types of hazards - The following sections address the major workplace fire hazards and the procedures for controlling the hazards:

a. Electrical Fire Hazards: Electrical system failures and the misuse of electrical equipment are leading causes of workplace fires. Fires can result from loose ground connections, wiring with frayed insulation, or overloaded fuses, circuits, motors, or outlets.

1. To prevent electrical fires, employees shall:
 - Make sure that worn wires are replaced.
 - Use only appropriately rated fuses.
 - Never use extension cords as substitutes for wiring improvements.
 - Use only approved extension cords [i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label].
 - Check wiring in hazardous locations where the risk of fire is especially high.

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- Check electrical equipment to ensure that it is either properly grounded or double insulated.
- Ensure adequate spacing while performing maintenance.

b. Portable Heaters: all portable heaters shall be of the approved type. Portable electric heaters shall have tip-over protection that automatically shuts off the unit when it is tipped over. There shall be adequate clearance between the heater and combustible furnishings or other materials at all times.

c. Office fire hazards: fire risks are not limited to VCU industrial facilities. Fires in offices have become more likely because of the increased use of electrical equipment, such as computers and fax machines. To prevent office fires, employees shall:

1. Avoid overloading circuits with office equipment.
2. Turn off nonessential electrical equipment at the end of each workday.
3. Keep storage areas clear of rubbish.
4. Ensure that extension cords are not placed under carpets.
5. Ensure that trash and paper set aside for recycling is not allowed to accumulate.

d. Welding, cutting, brazing: Trained VCU employees or contractors will adhere to the VCU Hot Work Program to ensure the following:

1. All necessary hot work permits have been obtained prior to work beginning. Hot work permits can be found [here](#).
2. Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible.
3. Adequate ventilation shall be provided.
4. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.
5. If the object to be welded or cut cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place.
 - If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.

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6. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways and open or broken windows.
7. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.
8. Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.
9. Cutting or welding in sprinklered areas while sprinkler protection is out of service requires the use of a Fire Watch.
10. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces.
11. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.
12. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.
13. Fire watch has been established. (See Hot Work Program)
14. Suitable fire extinguishing equipment shall be maintained in a state of readiness.

e. **Flammable and Combustible Materials:** certain types of substances can ignite at relatively low temperatures or pose a risk of catastrophic explosion if ignited. Such substances obviously require special care and handling.

1. **Class A Combustibles:** these include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in non-specialized areas such as offices.
 - To handle Class A combustibles safely:
 - a. Dispose of waste daily.
 - b. Keep trash in receptacles designed for that purpose.

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- c. Keep work areas clean and free of fuel paths that could allow a fire to spread.
 - d. Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
 - e. Store paper stock away from ignition sources (heat producing).
 - f. Store soiled rags in metal bins with self-closing lids.
 - g. Do not order excessive amounts of combustibles.
 - h. Make frequent inspections to anticipate fires before they start.
 - i. The following fire-extinguishing agent is approved for Class A combustibles:
 - o Water, multi-purpose dry chemical (ABC).
2. Class B Combustibles: these include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols.
- To handle Class B combustibles safely:
 - a. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
 - b. Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container must be grounded.
 - c. Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
 - d. Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
 - e. Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
 - f. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
 - g. Do not generate heat, allow an open flame, or smoke near Class B combustibles.

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- h. Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.
 - i. Water should not be used to extinguish flammable liquid Class B fires. Water can cause the burning liquid to spread, making the fire worse.
 - j. The following fire-extinguishing agents are approved for Class B combustibles:
 - o Carbon dioxide, multi-purpose dry chemical (ABC)
 - f. Smoking: Smoking is banned in all VCU buildings and within 25 feet of the entrance to any VCU building.
- 7. Training
 - a. Basic fire safety training shall be presented to all employees upon employment. Basic training includes:
 - a. Good housekeeping practices
 - b. Proper response and notification in the event of a fire.
 - c. Recognition of potential fire hazards.
 - b. Supervisors shall train employees about the fire hazards associated with the specific materials and processes to which they are exposed, and will maintain documentation of the training. Employees will receive this training:
 - a. Prior to their initial assignment
 - b. Annually
 - c. When changes in work processes necessitate additional training.
- 8. References:
 - 29 CFR 1910.39 – Fire Prevention Plan
 - NFPA Standard 51B – Fire Prevention in Use of Cutting and Welding Processes
 - Hot Work Program