

MiraCosta Community College District

Fire Prevention Plan

Authority and reference cited:
Section 142.3, Labor Code
California Code of Regulations, Title 8
General Industry Safety Order §3221



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Fire Prevention Plan

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I. OBJECTIVE

The purpose of this Fire Prevention Plan is to identify, reduce and eliminate the causes of fire, prevent loss of life and property by fire, prevention of hazards which have the potential of starting fires and to comply with the California Occupational Safety and Health Administration's (Cal/OSHA) standard on fire prevention, California Code of Regulations, Title 8, General Industry Safety Order §3221. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards. This written plan shall be kept in the workplace and made available for employee review.

Furthermore, it is the policy of the College to provide training to its employees in order that they would be able to assist College safety personnel in the prevention, recognition, and mitigation of potential hazards.

II. BACKGROUND

MiraCosta Community College District (District) is committed to minimizing the threat of fire to students, employees, guests, and property. The District complies with all applicable laws, regulations, codes, and good practices pertaining to fire safety and prevention. This Fire Prevention Plan serves to reduce the risk of fires at all of the District's Facilities in the following ways:

- Identifies materials that are potential fire hazards and their proper handling and storage procedures;
- Identifies potential ignition sources and the proper safety procedures of those materials;
- Describes fire protection equipment and/or systems used to control fire hazards;
- Identifies persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires;
- Identifies persons responsible for the control and accumulation of flammable or combustible material;
- Describes good housekeeping procedures necessary to insure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency;
- Provides training to employees with regard to fire hazards to which they may be exposed;
- Discusses preventative maintenance on fire protection equipment.

Location of plan

This Fire Protection Plan will be kept on the District's website pages of "Risk Management and the Facilities" as well as in the Director of Risk Management and the Director of Facilities' Offices.

III. ASSIGNMENT OF RESPONSIBILITY

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires, and are responsible for adhering to the District's policies regarding fire emergencies.

- A. Authority and Policy Establishment
The Superintendent/President determines the District's fire prevention and protection policies. The President will provide adequate controls to provide a safe workplace, and will provide adequate resources and training to its employees to encourage fire prevention and the safest possible response in the event of a fire emergency.
- B. Plan Administrators
The Director Risk Management and the Director of Facilities (or their designees) shall manage the Fire Prevention Plan for the District, and shall maintain all records pertaining to the plan. The Plan Administrators shall also review the Plan annually, and make any necessary corrections.
- C. Enforcement
Deans and Directors are responsible for notifying the Director of Risk Management and the Director of Facilities (or their designee) when changes in operation increase the risk of fire. Deans and Directors are also responsible for enforcing the District's fire prevention and protection policies.
- D. Employees
All employees shall:
1. Conduct operations safely to limit the risk of fire.
 2. Report potential fire hazards to their supervisors.
 3. Follow fire emergency procedures.
- E. Risk Management and Facilities collaborate
- Conduct annual inspections of all campus building to ensure compliance with State and local fire code regulations.
 - Review plans and specs for the remodeling of older buildings and construction of new facilities. Advise on applicable fire codes and practices.
 - Assure that District buildings, facilities, fire detection and fire suppression equipment are properly inspected at regular intervals and maintained to reduce the potential of fire losses.
 - Monitor the use of flammable liquids and materials.
 - Coordinate maintenance of District fire extinguishers and the Emergency Notification System.
 - Fire safety education and training.
- F. Facilities
1. Maintains all District fire alarm systems, fire suppression systems, fire sprinklers, standpipes, hoses and hydrants.
 2. Ensures prompt disposal of accumulated combustible materials.
- G. Campus Police
1. Conduct semi-annual campus evacuation exercises.
 2. Monitor fire detection and fire suppression alarms
- H. Deans, Department Chairs and Administrators
1. Ensure correction of all fire hazards within their control.
 2. Provide appropriate storage of flammable liquids in their department.
 3. Ensure control of the accumulation of flammable or combustible waste materials.
 4. Inform employees of the fire hazards located in their work area.

IV. PLAN IMPLEMENTATION

Good Housekeeping requires that the District control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. This is basic to fire safety and should be a major concern in every type of department. The following general preventive measures apply.

To limit the risk of fires, employees shall take the following precautions:

1. Minimize the storage of combustible materials.
2. Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions.
3. Dispose of combustible waste in a sufficient number of covered, airtight, metal containers.
4. Use and store flammable materials in well-ventilated areas away from identified ignition sources.
5. Use nonflammable products whenever possible.
6. Keep incompatible (i.e., chemically reactive) substances away from each other.
7. Perform "hot work" (i.e., welding, cutting, grinding, working with an open flame etc.) in controlled and well-ventilated areas, observing all proper safety precautions.
8. 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.
9. Ensure that heating units are safeguarded.
10. Report all gas leaks immediately. The Director of Facilities shall ensure that all gas leaks are repaired immediately upon notification.
11. Repair and clean up flammable liquid leaks immediately.
12. Keep work areas free of dust, lint, sawdust, scraps, and similar material.
13. Do not rely on extension cords if wiring improvements are needed, and take care not to overload circuits with multiple pieces of equipment.
14. Turn off electrical equipment when not in use.
15. General work areas such as offices, classrooms, labs, and shops must be kept orderly and clean.
16. Discarded packing material or scrap should not be accumulated.
17. A sufficient number of waste baskets or trash receptacles (non-combustible material) should be placed in each work area.
18. Floors are to be swept or vacuumed to prevent accumulation of combustible materials.
19. Avoid using flammable cleaning solvents to clean floors, walls, furniture or equipment.
20. Clean up hazardous material spills immediately. Call Facilities for guidance.
21. Do not use low flash point solvents in floor wax or polish.
22. Place oil or chemical soaked rags in metal or other suitable containers.

V. TYPES OF HAZARDS

The following sections address the major workplace fire hazards at the District's facilities and the procedures for controlling the hazards.

A. Common Causes of Fires

1. Overloaded electrical circuits, unsafe wiring and defective extension cords
2. Appliances such as coffee pots/makers, hot plates and other heating devices left on not in use.
3. Unattended cooking
4. Overheated motors and other equipment not maintained properly
5. Improper use of non-electrical heating systems (space heaters)
6. Improper disposal of smoking material such as emptying ash trays in trash cans and/or coming in contact with other combustible material
7. Improper use, handling and storage of flammable material (gasoline, solvents, paints)
8. Improper use of candles and associated electrical cords
9. Poor housekeeping which results in accumulation of combustibles such as paper, boxes, oil-soaked rags, and flammable liquids
10. Improper use of welding torches and equipment

B. Chemical Handling and Storage

1. Leaks, spills, and overflows must be avoided. Storage of flammable and combustible liquids in open containers is not permitted
2. Chemicals, specifically, flammable and combustible liquids, should be stored in appropriate cabinets approved by Risk Management and Facilities.
3. Incompatible materials in storage areas must be segregated. Specifically, separate ignitable material from oxidizers or sources of ignition. In general, do not store different types of incompatibles in the same container

C. Electrical 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.

To prevent electrical fires, employees shall:

1. Make sure that worn wires are replaced.
2. Use only appropriately rated fuses.
3. Never use extension cords as substitutes for wiring improvements.
4. Avoid overloading the building's electrical system by plugging in too many pieces of equipment.
5. Use only approved extension cords [i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label].
6. Check wiring in hazardous locations where the risk of fire is especially high.
7. Check electrical equipment to ensure that it is either properly grounded or double insulated.
8. Ensure adequate spacing while performing maintenance.
9. Do not plug multiple surge protectors together ("daisy chain")

D. Portable Heaters

Portable heaters are **not** recommended. Should a portable heater be required, its use must be approved (in writing) by the Director of Risk Management. 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. Its use shall be kept to a minimum, and it will not be left on unattended.

E. Corridor Fire Hazards

It is critical to keep the hallways in a safe condition, as these are the primary evacuation route for most faculty, staff, students and guests. To prevent problems, all employees shall ensure that:

1. Hallways are kept clear of obstructions.
2. Exits are clearly marked, and kept free of obstructions at all times. No emergency exit door may be locked or barred in a manner that prevents escape in times of emergency.

F. Office Fire Hazards

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.

G. Hot Work (Cutting, Welding, and Open Flame Work)

The Supervisor/Dean will ensure the following:

1. All necessary hot work permits have been obtained prior to work beginning.
2. Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible.
3. Adequate ventilation is provided.
4. Fire watch has been established (properly trained and equipped).
5. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.
6. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.
7. Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.
8. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.
9. Confined spaces such as tanks are tested to ensure that the atmosphere is not over ten percent of the lower flammable limit before cutting or welding in or on the tank.
10. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.

H. 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.

Flammable Materials

- Flammable materials are stored in College buildings as allowed by fire codes.
- Flammable waste is accumulated in labs and offices and picked up for storage in the Hazardous Storage Facility. Pickups are scheduled for proper disposal of hazardous waste by Facilities.

Combustible Materials

- Combustible materials are collected from offices, classrooms and labs by Facilities' custodial staff. Material is deposited in dumpsters located outside every major District facility.
- Facilities contracts with a waste disposal company to pick up combustible trash regularly.

I. Smoking

Smoking or the use of any tobacco product is prohibited at all campus sites. Students, staff members, and visitors to the campuses of MiraCosta College are permitted to use tobacco products in their personal vehicles *only*. Certain sections at campus entrances from parking lots are designated for disposal of cigarette butts and NOT designated smoking areas.

VI. TYPES OF FIRES

Fires are classified into four general categories depending on the type of materials or fuels involved. The type of fire determines the type of extinguisher used in the emergency. Fire extinguishers are rated by their effectiveness to extinguish different types of fires. Accordingly, all fire extinguishers are identified with common symbols to indicate on which fire are most effective.

1. *Class A Fires*

Class A fires involve ordinary combustible materials such as wood, paper, rags, rubbish and other solids.

2. *Class B Fires*

Class B fires occur in the vapor/air mixture over the surface of flammable and combustible liquids such as gasoline, fuel oil, paint thinner, hydraulic fluids, flammable cleaning solvents and other hydrocarbon fuels.

3. *Class C Fires*

Class C fires involve energized electrical equipment.

4. *Class D Fires*

Class D fires involve combustible metals such as magnesium.

Class A combustibles. (Class A Fires)

These include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in areas such as offices.

To handle Class A combustibles safely:

- Dispose of waste daily.
- Keep trash in metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).
- Keep work areas clean and free of fuel paths that could allow a fire to spread.
- Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
- Store paper stock in metal cabinets.
- Store rags in metal bins with self-closing lids.
- Do not order excessive amounts of combustibles.
- Make frequent inspections to anticipate fires before they start.

Water, multi-purpose dry chemical (ABC), and Halon are approved fire extinguishing agents for Class A combustibles.

Class B combustibles. (Class B Fires)

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:

- 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).
- Do not dispense 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.
- 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.
- Dispose of oily rags, towels etc. promptly and properly.
- Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
- Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- Do not generate heat, allow an open flame, or smoke near Class B combustibles.
- Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Water *should not* be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), and Halon. (**NOTE:** Halon has been determined to be an ozone-depleting substance and is no longer being manufactured. Existing systems using Halon can be kept in place.)

Standpipes, Hoses and Hydrants

Standpipes, hoses and hydrants are maintained in an operable condition by Facilities.

Control of Flammable or Combustible Waste Materials

Ordinary Trash

The Facilities Department (Custodial Services) is responsible for collecting ordinary combustibles, such as paper, wood, plastic and cloth. If you have any questions concerning the disposal of ordinary trash, call extension 6875.

Hazardous Waste

Facilities is responsible for arranging the collecting and disposing of hazardous waste, including chemical, biohazard and, if applicable, radioactive wastes. If you have any questions concerning the disposal of hazardous waste, call extension 6875.

VII. TYPES OF FIRE PROTECTION EQUIPMENT

The basic types of fire protection equipment and systems used at the District to control or extinguish fires are:

- A. Fire Alarms
- B. Chemical Suppression System- Chemical type extinguishing systems, including carbon dioxide, dry chemical and Halon systems

- C. Fire Doors and Barriers
- D. Portable Fire Extinguishers (see XXXX)
- E. Sprinkler Systems

A. Fire Alarms

All of the District's buildings contain the proper fire detection and alarm systems, as per State Fire Protection Codes.

- Manual fire alarm pull stations are distributed throughout campus buildings and are readily accessible in the normal path of exit.
- The audible signal is of sufficient duration and intensity that it is capable of being heard by persons of average hearing ability.
- Alarm systems are checked every six months to determine if they are working properly.
- Most campus fire alarm stations have been covered to prevent frequent false alarms. These covers can be easily activated by breaking the glass with the device attached to the cover.
- Fire alarms are monitored at the Campus Police dispatcher and an external monitoring service provider.

B. Chemical Suppression System

Each of the District kitchens contains a chemical fire suppression system.

C. Fire Doors and Barriers

All Buildings are equipped with the required fire doors and barriers. The automatic type will be kept in proper working order. **Fire doors should never be propped or wedged open.** Emergency Doors shall be properly marked and always kept clear of obstructions.

D. Portable Fire Extinguishers

Portable fire extinguishers are located throughout every College facility. Facilities can provide a list of fire extinguisher locations upon request (call ext. 6875).

Facilities is generally responsible for oversight of all fire protection equipment, and specifically, maintains the portable fire extinguisher service program

All of the District's buildings contain fire extinguishers as required by the regulations. They are of the following types:

- Water – for Class A fires (wood, paper etc.)
 - Dry Chemical- for Class A, B, C fires (any)
 - Compressed Gas (CO2, N2)- for Class B, C fires.
- All extinguishers are maintained in an operable condition by an outside contractor licensed by the State to do the maintenance. Facilities will coordinate the servicing. Notify Facilities if an extinguisher is found to be discharged, missing or overdue annual servicing.
 - Extinguishers shall not be obstructed from view.
 - Extinguishers shall be inspected monthly.

E. Sprinkler systems

Many buildings are equipped with a sprinkler system. Sprinkler systems are located throughout the campus in various locations, high hazard areas and the Library.

- Facilities and Campus Police must be notified whenever a system is turned off.
- All locations underneath sprinkler heads should be maintained with 36" clearance.

VIII. MAINTENANCE OF FIRE PROTECTION EQUIPMENT

The District shall regularly and properly maintain, according to established procedures, equipment and systems installed in the workplace to prevent accidental ignition of combustible materials. Maintenance of all Fire Protection Equipment is administered by the Facilities Department. The District will comply with requirements of the National Fire Protections Association (NFPA) codes for specific equipment. Where required, the District has installed fire suppression hood systems in kitchens. These systems are inspected and cleaned as necessary by a licensed contractor. As indicated, certified outside contractors periodically inspect the District's fire protection equipment and systems to insure functionality.

IX. FALSE ALARMS

In the event that a fire alarm is triggered without a real fire (through mistake, malice or equipment fault), notify Campus Police 760-795-6640 immediately of the false alarm. Please note, however, even if it is a false alarm, the Fire Department retains authority over the building until the Fire Chief releases it back to the District.

X. TRAINING

The District shall apprise employees of the fire hazards of the materials and processes to which they are exposed. The District shall review with each employee upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency. Basic Fire Prevention training may be given by any qualified individual (Directors, Risk Management, Facilities or Public Safety, or his/her designee, Local Fire Chief, etc.). The Department Head may contact these Directors (or their designee) to conduct the training or make their own arrangements with other qualified individuals.

Supervisor Responsibility

Supervisors are responsible for informing employees of potential fire hazards in the workplace specific to their tasks. In addition, each supervisor shall instruct employees on those parts of the fire prevention plan applicable for the employees to protect themselves and respond in the event of an emergency.

A. Fire safety training includes:

1. Fire Prevention Plan- where is it and what does it say.
2. What to do if employee discovers a fire
 - How to raise the alarm
 - How to recognize fire exits
 - Evacuation routes
 - Assisting persons with disabilities
 - Measures to contain fire (e.g., closing office doors, windows, etc. in immediate vicinity)
 - Immediate evacuation
 - Assembly areas
 - Return to building after the "all-clear" signal
- 3) Fire Drills- Campus Police are responsible to ensure that the required numbers of Fire Drills are conducted and records of same are kept.

- New employees receive General Safety Training by the supervisor on the location of fire related equipment and systems and how to report a fire.
- Each department office contains an emergency procedures chart detailing the procedures to follow in case of an emergency.
- Each room on campus contains a chart briefly describing the procedures to follow in case of a fire.
- Fire extinguisher training classes are available upon request from Risk Management.

IX. PROGRAM REVIEW

In case of fire, the total and immediate evacuation of all students, staff and guests is necessary. Employees are expected to take the personal initiative to learn what is expected of them during a fire to assure their safety. If in doubt, the employee should immediately contact their supervisor, or the Director, Risk Management to learn the proper procedures.

Any employees who do not understand the available training information are encouraged to contact the Director, Risk Management for additional instruction. Because failure to comply with District's policy concerning fire prevention can result in death or injury, not to mention citations and fines, an employee who does not comply with this program may be subject to disciplinary action through established procedures.

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