Fire Prevention Plan

Revision Date: 3/5/2025

I. OBJECTIVE

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property by fire, and to comply with the Occupational Safety and 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.

This program contains the following:

- A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard
- Procedures to control accumulations of flammable and combustible waste materials
- Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials
- The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires
- The name or job title of employees responsible for the control of fuel source hazards
- Inform employees upon initial assignment to a job of the fire hazards to which they are exposed
- A review with relevant person(s) those parts of the fire prevention plan necessary for self-protection
- Focused housekeeping efforts on fire prevention so that hazardous accumulations of combustible waste materials are controlled
- Maintenance of fire prevention equipment (extinguishers & extinguishing equipment, temperature limit switches on cooking equipment, etc.)

II. NOTIFICATION PROCESS

Memphis Shelby County Schools (MSCS) is committed to minimizing the threat of fire to employees, visitors, and property. The school district complies with all applicable laws, regulations, codes, and good practices pertaining to fire prevention.

When a fire occurs at an MSCS school, property, or facility, all staff must follow evacuation procedures consistent with the MSCS Emergency Action Plan.

Additionally, it is **mandatory** in the event of a fire that **911** is called with a response from the local fire dept.

In the event of a fire at an MSCS school building, property, or district facility, the following person(s) **must** be notified:

A. Building Engineer

B. Fire & Life Safety Compliance Advisor

C. EHS Manager

D. Director of Facilities

E. Risk Advisor or Safety Officer/Advisor

F. Principal

III. ASSIGNMENT OF RESPONSIBILITY

Fire safety is everyone's responsibility. The Environmental Health & Safety Department (EHS Dept) consisting of the Fire & Life Safety Compliance Advisors and the EHS Manager are required to know how to prevent & respond to fires, and are responsible for adhering to MSCS board policy regarding emergencies.

A. EHS Department

The EHS Manager is responsible for managing the Fire Prevention Plan for MSCS and maintaining all records pertaining to the plan. The EHS Dept is responsible for the following:

- Work with each facilities' Building Engineer to provide adequate controls for a safe workplace
- Provide adequate resources and training to the Fire & Life Safety Compliance Advisors and Building Engineers to encourage fire prevention and the safest possible response in the event of a fire emergency
- Complete routine fire inspections focusing on fire hazard prevention, storage, disposal/removal of accumulated flammable and combustible waste materials
- Coordinate with the ***district-approved service vendor*** for maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials and

maintenance of fire prevention equipment (extinguishers & extinguishing equipment, temperature limit switches on cooking equipment, etc.)

B. Risk Management

Risk Management will advise the EHS department of the MSCS fire prevention & protection policies and will provide regulatory & compliance documentation whether through OSHA/NFPA standard updates or by way of board policy changes.

It is vital that Risk Management is notified and any fuel sources, ignition points, or any other evidence is preserved when a fire occurs, so that MSCS can seek out avenues of reimbursement and subrogation for insurance purposes.

C. Building Engineers

Each MSCS district facility (school, property/grounds, and building) has a Building Engineer. The Building Engineer is responsible for the following:

- Control of fuel source and fire hazards at their respective MSCS district location
- Placing work order tickets for hazard removal or repair and notifying the EHS Dept
- Controlling the accumulations of flammable and combustible waste materials
- Notifying the EHS Dept of excess flammable and combustible accumulations
- Conducting housekeeping inspections of their facility to ensure safeguards are properly installed on heat-producing equipment and to prevent the accidental ignition of combustible materials

IV. PLAN IMPLEMENTATION

Good Housekeeping

To limit the risk of fires, the EHS Dept and Building Engineers 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 covered, air-tight, 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.

7. Perform “hot work” (i.e., welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas.

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. Facilities/Maintenance 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. Ensure that required hot work permits are obtained.

15. Turn off electrical equipment when not in use.

16. Use of Flammable Liquid Storage Cabinets (FLSC) is permitted.

- No more than 60 gal of Category 1, 2, & 3 flammable liquids or 120 gallons of Category 4 flammable liquids can be stored in any one cabinet
- No more than 3 such cabinets may be located in a single storage area
- Cabinets must be properly grounded to prevent incidental ignition and kept locked when not in use

Maintenance

The EHS Dept and Building Engineers will ensure that the equipment is maintained according to manufacturers' specifications. MSCS will also comply with the requirements of the NFPA codes for specific equipment. Only properly trained individuals shall perform maintenance work.

The following equipment is subject to the maintenance, inspection, and testing procedures:

1. equipment installed to detect fuel leaks, control heating, and control pressurized systems

2. portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems (commercial cooking)

3. detection systems for smoke, heat, or flame

4. fire alarm systems

5. emergency backup systems and the equipment they support

V. TYPES OF HAZARDS

The following sections address the major workplace fire hazards at MSCS facilities 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.

To prevent electrical fires, the EHS Dept & Building Engineers 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. Use only approved extension cords [i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label].

5. Check wiring in hazardous locations where the risk of fire is especially high.

6. Check electrical equipment to ensure that it is either properly grounded or double insulated.

7. Ensure adequate spacing while performing maintenance.

B. Portable (Space) Heaters

1. Space heaters or heaters in general are NOT allowed in confined spaces for any construction work being completed (per ***OSHA 1926.154***).

2. ***NFPA 1-11.5.3*** requires any portable electric heaters (space heaters) to adhere to the following:

- Must be UL-approved
- Must have an automatic shutoff if tipped/knocked over
- Must be kept 3-ft away from flammables & combustibles
- Must be unplugged at the end of each day

C. Office Fire Hazards

Fire risks can occur anywhere including administration offices. 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.

6. Plug-in air fresheners are not to be used in MSCS facilities (schools, property/grounds, admin bldgs) due to allergies & sensitivities as well as being prone to overheat once the fragrance dissipates.

D. Cutting, Welding, and Open Flame Work

Facilities/Maintenance Supervisors 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. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.

5. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.

6. Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.

7. Cutting or welding is prohibited in sprinklered areas while sprinkler protection is out of service.

8. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces.

9. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.

10. 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.

11. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.

12. Fire watch has been established.

E. Flammable and Combustible Materials

Building Engineers and the EHS Dept shall regularly evaluate the presence of combustible materials at MSCS district facilities. 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.

<u>1. Class A combustibles.</u>

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 metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).

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 in metal cabinets.

f. Store 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. Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire extinguishing agents for Class A combustibles.

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.

h. 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), halon 1301, and halon 1211. (*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.*)

F. Smoking

Smoking is prohibited in all MSCS schools. Per ***TN 39-17-1604***, 'smoking or the use of vapor products is not permitted, and no person shall smoke or use vapor products, in the following places:

- All public & private kindergartens and elementary and secondary schools.

Adult staff members may be permitted to smoke or use vapor products outdoors but not within one hundred feet (100 ft) of any entrance to any building. Adults may also smoke or use vapor products in any fully enclosed adult staff residential quarters but not in the presence of children attending the school. Smoking is also not permitted on school grounds, including any public seating areas, such as bleachers used for sporting events, or public restrooms.'

Certain outdoor areas may also be designated as no smoking areas. These areas in which smoking is prohibited outdoors must be identified by NO SMOKING signs.

VI. TRAINING

The EHS Manager shall present basic fire prevention training to the Fire & Life Safety Compliance Advisors as well as Building Engineers upon employment or annually, and shall maintain documentation of the training, which includes:

A. review of the ***29 CFR 1910.38*** standard and this Fire Prevention Plan

C. good housekeeping practices

D. proper response and notification in the event of a fire

E. instruction on the use of portable fire extinguishers (as determined by company policy in the Emergency Action Plan)

F. recognition of potential fire hazards at each MSCS facility

The EHS Dept shall train Building Engineers and other relevant 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. at their initial assignment

B. annually

C. when changes in work processes necessitate additional training

VII. PROGRAM REVIEW

The EHS Manager and Risk Management shall review this Fire Prevention Plan at least annually for necessary changes.