

Plainsboro Fire District 1 Fire Prevention Plan



July 2011

I. OBJECTIVE

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property, and to comply with the Occupational Safety and Health Administration's (here after referred to as 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.

II. BACKGROUND

Plainsboro Fire District 1 is committed to minimizing the threat of fire to employees, visitors, and property. Plainsboro Fire District 1 complies with all applicable laws, regulations, codes, and good practices pertaining to fire prevention. Plainsboro Fire District 1 separate Emergency Action Plan spells out the procedures for responding to fires. This Fire Prevention Plan serves to reduce the risk of fires at Plainsboro Fire District 1 in the following ways:

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

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 company policy regarding fire emergencies.

A. Management

Management determines the Plainsboro Fire District 1 fire prevention and protection policies. Management 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 Administrator

The Chief of the Plainsboro Volunteer Fire Co. #1 or his/her designee or will manage the Fire Prevention Plan for Plainsboro Fire District 1 and shall maintain records pertaining to the plan. The Plan Administrator shall also:

1. Develop and administer the Plainsboro Fire District 1 fire prevention training program.
2. Ensure that fire control equipment and systems are properly maintained.
3. Control fuel source hazards.
4. Conduct fire risk surveys and make recommendations.

C. Supervisors

Supervisors are responsible for ensuring that employees receive appropriate fire safety training and for notifying the Fire Chief or his/her designee when changes in operation increase the risk of fire. Supervisors are also responsible for enforcing the Plainsboro Fire District 1 fire prevention and protection policies.

D. Employees

All employees shall:

1. Complete all required training before working without supervision.
2. Conduct operations safely to limit the risk of fire.
3. Report potential fire hazards to their supervisors.
4. Follow fire emergency procedures.

IV. PLAN IMPLEMENTATION

A. Good Housekeeping

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 covered, airtight, metal containers.
4. Use and store flammable materials in well-ventilated areas away from ignitions sources.

5. Use nonflammable cleaning products where possible.
6. Keep incompatible (i.e. chemically reactive) substances away from each other.
7. Perform “hot work” (i.e. welding, open flame, or other ignition sources) in controlled well-ventilated areas.
8. Keep equipment in good working order (i.e. inspect electrical wiring and appliances regularly; keep motors and machine tools free of dust and grease).
9. Ensure heating units are safeguarded.
10. Report all gas leaks immediately, to the Fire Chief or his/her designee shall ensure all gas leaks are repaired upon notification.
11. Repair and clean up flammable liquid leaks immediately.
12. Keep work areas free of dust, lint, sawdust, scraps, and similar materials.
13. Do not rely on extension cords if wiring improvements are needed. Take care not to overload circuits with multiple pieces of equipment.
14. Ensure required hot work permits are obtained when needed.
15. Turn off electrical equipment when not in use.

B. Maintenance

The Fire Chief or his/her designee will ensure that equipment is maintained according to manufacturers’ specifications. Plainsboro Fire District 1 will also comply with the National Fire Protection Association (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.
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 Plainsboro Fire District 1 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, overloaded fuses, circuits, motors, or outlets.

To prevent electrical fires, employees shall:

1. Make sure 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) labeled].
5. Check wiring in hazardous locations where the risk of fire is especially high.
6. Check electrical equipment to ensure it is either properly grounded or double insulated.
7. Ensure adequate spacing while performing maintenance.

B. Portable Heaters

All portable heaters shall be approved by the Fire Chief or his/her designee. 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 Hazards

Fire risks are not limited to Plainsboro Fire District 1 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 extension cords are not placed under carpets.
5. Ensure trash and paper set aside for recycling are not allowed to accumulate.

D. Cutting, Welding, and Open Flame Work

The Fire Chief or his/her designee or his designee 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 must be tested to ensure the atmosphere is not over ten percent (10%) of the lower flammable limit before cutting or welding in the tank.
11. Small tanks, piping, or containers cannot be entered are cleaned, purged, and tested before cutting or welding begins.
12. Fire watch has been established.

E. Flammable and Combustible Materials

The Fire Chief or his/her designee or his designee shall regularly evaluate the presence of combustible materials at Plainsboro Fire District 1.

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 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 metal-lined receptacles with tight-fitting covers (metal waste baskets 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, and other heat producing or sparking 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 and/or multi-purpose dry chemical (ABC) are approved fire extinguishing agents for Class A combustibles.

2. Class B Combustibles

These include flammable and combustible liquids (oil, diesel fuel, grease, 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 down, to dispense liquids from tanks, drums, barrels or similar containers (use only 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 the 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, mechanical sparks, 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 never be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making 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 (CO₂), multi-purpose dry chemical (ABC), and AFFF foam.

F. Smoking

Smoking is prohibited in Plainsboro Fire District 1 buildings. Certain outdoor areas may also be designated as no smoking areas. The areas in which smoking is prohibited outdoors are identified by NO SMOKING signs.

VI. Training

The Fire Chief or his/her designee shall present basic fire prevention training to all employees upon employment, and shall maintain documentation of the training which includes:

1. Review of 29 CFR 1910.38, including how it can be accessed.
2. This Fire Prevention Plan, including how it can be accessed.
3. Good housekeeping practices.
4. Proper response and notification in the event of a fire.
5. Instruction on the use of portable fire extinguishers (as set forth in the Emergency Action Plan).
6. Recognition of potential fire hazards.

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:

1. At their initial assignment
2. Annually
3. When changes in work processes necessitate additional training.

VII. PROGRAM REVIEW

The Fire Chief or his/her designee shall review this Fire Prevention Plan at least annually for necessary changes and updates.