# Fire Safety Program

## Table of Contents

- Overview/Mission ........................................................................................................................... 1
- Building Evacuation........................................................................................................................ 1
- Candles/Open Flames ..................................................................................................................... 2
- Combustible Materials .................................................................................................................... 2
- Open Burning .................................................................................................................................. 2
- Department of Residence .............................................................................................................. 3
- Emergency Planning/Response ....................................................................................................... 3
- Fire Drills ........................................................................................................................................ 3
- Fire Alarm Systems ....................................................................................................................... 3
- Fire Extinguishers ........................................................................................................................... 3
- Fire Marshal .................................................................................................................................... 4
- Fireworks/Pyrotechnics ................................................................................................................... 4
- Flammable Liquids .......................................................................................................................... 4
- Higher Education Opportunity Act ................................................................................................. 5
- Health and Life Safety Fund ........................................................................................................... 5
- Hot work ......................................................................................................................................... 5
- Laboratory Safety Inspections ......................................................................................................... 5
- Plan Review .................................................................................................................................... 6
- Refrigerators/Freezers ..................................................................................................................... 6
- Reporting Fires or Building Emergencies ....................................................................................... 6
- Smoking Policy ............................................................................................................................... 6
- Sororities/Fraternities ..................................................................................................................... 6
- Sprinkler Systems/Standpipes ........................................................................................................ 6
OVERVIEW / MISSION

The mission of Environmental Health and Safety’s (EH&S) fire safety program is to provide a proactive fire prevention program designed to protect the lives and property of Iowa State University students, faculty, staff and visitors. This mission is addressed through a comprehensive effort of fire safety education, code enforcement, investigation and audits.

EH&S serves as a resource to the Iowa State University community on fire safety issues, collecting, compiling and disseminating information relating to plan review and fire and arson prevention and control, as well as providing fire extinguisher training, inspection and testing of over 5,000 fire extinguishers on University property.

The Iowa State University official Fire Safety Policy including guidelines and responsibilities is located at:

http://policy.iastate.edu/policy/firesafety

EH&S has produced a Fire Safety Guidelines pamphlet that provides an overview of the fire safety program at Iowa State University. The pamphlet is available on the web at:

http://www.ehs.iastate.edu/publications/manuals/fireguide.pdf

BUILDING EVACUATION

Fire and evacuation alarms are intended to alert building occupants that a fire or other life-threatening situation exists. Upon hearing the alarm, everyone should leave the building immediately. In the event of a fire, the following steps should be taken to ensure the safety of all building occupants.

1. **Activate the fire alarm.** In the event of a fire or any emergency requiring building evacuation, it is essential to activate the nearest fire alarm pull station or to verbally notify building occupants if the building is not equipped with a fire alarm system.

2. **Call 911.** Telephone 911 and give your name, location, nature of the emergency and telephone number. This call should be made immediately, even if the fire alarm has already been activated.

3. **Assist injured personnel.** Inform emergency responders or 911 about the nature of the medical emergency. If properly trained, assist with first aid or evacuation.

4. **Exit the building.** At the sound of a fire alarm, all building occupants should proceed to the nearest exit and leave the building immediately. During pre-emergency planning, all occupants should learn at least two evacuation routes from each building area and be familiar with routes outlined on evacuation maps.

5. **Assist physically impaired individuals.** Physically impaired individuals should be given assistance to a secure area, such as a large stairwell or an office separated from a corridor by a fire door. Emergency personnel must be notified of their locations. Each supervisor
should be aware of any physically impaired persons in their work areas and any special assistance needed to safely evacuate them.

6. **Ensure all personnel are out of the building.** Ensure all personnel are out of the immediate area. If there is time and no present danger, close all doors and windows while evacuating.

7. **Do not use the elevators.** Elevators may lose power during a fire. If elevators are working during a fire emergency, their use is reserved for emergency response personnel only.

8. **Assemble personnel at a remote location.** Assemble personnel at a remote pre-arranged location to facilitate everyone in the affected to be accounted for.

9. **Report hazardous conditions.** If you are working in a research area and have sufficient time, ensure that the lab and experiments are in safe condition before leaving the area. Report any hazardous conditions to responding emergency personnel.

10. **Stay low.** If confronted with smoke, keep near the floor. Smoke, heat and toxic gases will normally rise to the ceiling. All closed doors should be checked for heat prior to opening. If a door knob is hot, the door should not be opened.

11. **Stay away from the building until it is safe to return.** Do not re-enter the building until advised to do so by the authorities.

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**CANDLES/OPEN FLAMES**

Iowa State University prohibits the use of candles or open flames anywhere on campus including dormitories. Exceptions to this policy include laboratory or kitchen experiments, religious or cultural events, and certain student events. The university policy on candles and open flames is located at: [http://policy.iastate.edu/policy/candles/](http://policy.iastate.edu/policy/candles/)

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**COMBUSTIBLE MATERIALS**

Storage of combustible materials should be kept to a minimum in laboratory and storage areas. Storage of combustible materials is prohibited in mechanical spaces and electrical vaults.

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**OPEN BURNING**

Open burning of brush, debris, trash, refuse, or any other items is not allowed on Iowa State University property. Fires used for ceremonies or emergency response training are not considered open burning, but must be controlled and under observation at all times. Fires used for recreational purposes such as bonfires or campfires must be approved by EH&S. Tires, furniture and appliances must not be burned at any time for any reason. The university policy covering open burning on university property is located at:

[http://www.policy.iastate.edu/policy/air/](http://www.policy.iastate.edu/policy/air/)
The Department of Residence (DOR) at Iowa State University maintains a fire safety program consisting of fire drills (see below), emergency evacuation plans, fire extinguishers, emergency generators, smoke and heat detection and sprinkler systems. Specifics of the DOR program are outlined at the following website: http://www.housing.iastate.edu/safety/fire.html

EMERGENCY PLANNING/RESPONSE

Emergency action plans are required for all laboratories on campus in accordance with 1910.38. Templates are available on the EH&S website: http://www.ehs.iastate.edu/cms/default.asp?action=article&ID=201

FIRE DRILLS

Fire drills are conducted twice per year in all Iowa State University Residence Halls. Drills are conducted and coordinated by the Department of Residence.

Fire drills are conducted in Child Care Services Facilities once per month.

FIRE ALARM SYSTEMS

Fire alarm panels are scheduled for certification on an annual basis. Certification is coordinated by Facilities Planning and Management. A monthly report is generated by FP&M personnel outlining each fire alarm reported, its cause and resolution. Fire alarms are tested in campus buildings on a semi-annual basis by FP&M area mechanics.

FIRE EXTINGUISHERS

EH&S installs and maintains some 5000 fire extinguishers in Iowa State University facilities in accordance with NFPA 10. Services include monthly inspections, annual inspections, hydrostatic testing, 6 year repacks, and recharges as needed. The Iowa State University Fire Extinguisher Policy is located at: http://policy.iastate.edu/policy/extinguishers/
In alternate years the Iowa State Fire Marshal’s office inspects Iowa State University academic buildings and Residence Halls. EH&S facilitates the inspection of academic buildings and accompanies inspectors throughout the inspections. Once the Fire Marshal report is received by EH&S the deficiencies noted are divided into three categories:

- Occupant/departments responsibilities that are addressed by requesting a change in space use or occupant behavior. Examples include door wedges and inappropriate storage.
- Repair issues that are addressed by initiating repair requests through the FP&M FAMIS system. Examples include burned-out exit signs and damaged door closures.
- Project requirements require a larger funding amount and may involve a capital project. Examples include building sprinklers and creating egress corridors.

EH&S acts as liaison to the Fire Marshal’s office when requesting a variance or ruling on fire code issues. The Fire Marshal’s office reviews plans for new building construction projects, building additions and building remodeling involving altering structural members or egress.

**FIREWORKS/PYROTECHNICS**

EH&S, Risk Management and the Iowa State University Police review and must approve every application to present a fireworks or pyrotechnic display on Iowa State University property. Specific insurance, experience, setback and location requirements are enforced. In addition to review, EH&S personnel inspect each operator setting up the day of the display to ensure compliance with the requirements of the application. EH&S and the Iowa State University Police personnel have the authority to halt any fireworks or pyrotechnical display for reasons of weather, variance from the application or safety related concerns. The Fireworks/Pyrotechnics and Flame Displays policy is located at: [http://policy.iastate.edu/policy/fireworks/](http://policy.iastate.edu/policy/fireworks/)

**FLAMMABLE LIQUIDS**

Flammable liquids should be stored in safety cans whenever feasible. Safety cans are constructed of stainless steel or tin and are equipped with a flame arrestor and spring-loaded cap on both the filling and pouring spouts. The double-perforated metal surface of the flame-arrestor screen prevents flames from entering the container. Safety cans are available for both dispensing products and collecting waste. Safety cans must not be modified.

Flammable and combustible liquids, including waste solvents in quantities greater than ten gallons, must be stored in approved flammable liquid storage cabinets. Cabinets must be placed where they will not obstruct egress.
HIGHER EDUCATION OPPORTUNITY ACT

Iowa State University Response and report complying with the Higher Education Opportunity Act is coordinated by the Office of Legal Counsel. Contributions to this report regarding fire related incidents and activities are made by the Department of Residence, DPS and EH&S.

HEALTH AND LIFE SAFETY FUND

A health and life safety fund has been established through FP&M. This fund is administered jointly by FP&M and EH&S and is used to address fire code deficiencies and safety-related issues on campus.

HOT WORK

The Hot Work Permit Program identifies safety requirements for performing hot work at Iowa State University. This program was developed in accordance with OSHA and NFPA regulations with the goal of preventing hot work fires. Its requirements apply to both Iowa State employees who perform hot work activities such as welding, torch cutting, grinding, and torch soldering. Contractors working at Iowa State University are required to have a hot work permit program or may follow Iowa State University’s program.

Environmental Health & Safety provides training classes to all Iowa State employees who are involved with hot work activities. Before hot work can be performed a hot work permit must first be obtained and completed in accordance with Iowa State University’s hot work permit program unless the work is performed in a designated hot work area. Upon departmental request EH&S will inspect areas to determine if they meet requirements to be designated hot work areas where hot work permits are not required to perform hot work.

For Further Information:

EH&S website:  http://www.ehs.iastate.edu/cms/default.asp?action=article&ID=300
Iowa State University policy library:  http://policy.iastate.edu/policy/hotwork/

LABORATORY SAFETY INSPECTIONS

Iowa State University laboratories are audited routinely for safety practices including fire safety items. Fire doors, electrical items and fire separation are all a part of laboratory inspections conducted by EH&S personnel. Lab occupants are encouraged to conduct their own audits. Audit forms are available on-line at:  http://www.ehs.iastate.edu/forms/LabSafetySurvey.pdf
PLAN REVIEW

EH&S reviews remodeling and construction plans for adherence to applicable building and fire code regulations. EH&S provides input on changes to achieve compliance and possibilities for variances or interpretations.

REFRIGERATORS/FREEZERS

Commercially-available, domestic refrigerators contain built-in ignition sources and shall not be used to store flammable liquids or explosive chemicals. Light bulbs, switches, temperature controls, standard plugs, motor-starting relays, thermal-overload devices, and heater strips (for frost control) are all ignition sources. Refer to EH&S' electrical safety information.

Flammable liquids or explosives that require refrigeration should be stored in refrigerators specifically designed and approved for such use and labeled as such. Labels are available from EH&S.

REPORTING FIRES OR BUILDING EMERGENCIES

All fires, even those found already extinguished, should be reported by calling 911. The City of Ames fire department responds to all alarms initiated either by pull stations or by telephone on campus.

SMOKING POLICY

Smoking of cigar, cigarette, pipe, or other tobacco products is not allowed on the grounds of Iowa State University including dormitories. The Iowa State University smoke-free campus policy is located here: http://policy.iastate.edu/policy/smoking/

SORORITIES/FRATERNITIES

Sororities and fraternities are governed and inspected under fire and building code regulations by the City of Ames.

SPRINKLER SYSTEMS/STANDPIPES

New buildings and major additions that are constructed at Iowa State University incorporate sprinkler systems and standpipes as outlined in the international Fire Code section 903 and NFPA 13. Sprinkler systems are tested on an annual basis by Facilities Planning and Management. Other fire suppression systems are tested on an annual basis by outside contractors.