



#### Authors

John Shutske, University of Minnesota  
Michele Schermann, University of Minnesota

## Fire Prevention and Protection

#### Reviewers

Liz Wagstrom, National Pork Board  
Kerry Leedom-Larson, National Pork Board

Originally Published by:



In the event of a fire, your farm buildings, equipment, and livelihood can be wiped out literally in a flash. Fires can kill quickly; whether from heat and smoke, release of toxic gases, or the rapid loss of oxygen. Without prevention and safe management practices, you put your own life – as well as the lives of your employees and animals – at risk. The good news is, most fires can be prevented. Follow these practices to “stop fires before they start.”

### Adopt Fire Loss-Prevention Practices

- When adding new buildings to your farm, use as many noncombustible or flame-retardant materials as you can.
- Make sure you have appropriate fire insurance coverage for your livestock, buildings, and equipment.
- Schedule regular fire inspections and drills.
- Have a fire safety professional inspect your farm. Ask them to provide input on present and potential hazards.
- Contact your local electric company; it can help you determine if your wiring is in good shape and meets the National Electric Code.
- Contact your state Division of Labor or major state university for helpful information from the National Fire Protection Association (NFPA) or see [www.nfpa.org](http://www.nfpa.org).
  - ◇ Develop an Emergency Action Plan. See <http://eap.pork.org/> to use the Pork Checkoff’s web-based Emergency Action Plan tool.
  - ◇ Train your employees on the Emergency Action Plan.
- Contact your local health care professional, American Heart Association, or American Red Cross representative for advanced training help in CPR and other first aid procedures to administer in case of shock or fire. Make fire safety inspection part of your periodic safety assessments.
  - ◇ Twice a year: Test your fire or smoke alarm system.
  - ◇ Once a year: Flush outside private fire hydrants.
  - ◇ Once a week: Check the air and water pressure of any automatic sprinkler systems.

### Minimize Existing Fire Hazards

- Practice and enforce good housekeeping:
  - ◇ Remove weeds and brush from around buildings (at least 20 feet on all sides).
  - ◇ See that work areas are kept clean and uncluttered.

- ◊ Never allow blocked exits, stairs, or aisles.
- ◊ Make sure employees get in the habit of putting equipment away after use.
- Inspect all electric motors and appliances for exposed wires, broken insulation, improper grounding and improper installation. Equip motors with thermal overload relays or cutouts.
- Check the heating system to make sure that it's in good repair.
  - ◊ Once per season: clear ducts and air shafts of dust and debris, and clean and oil moving parts if necessary.
- Enact and enforce a "no smoking" rule inside any buildings or areas where flammable and combustible materials are stored. Do not permit smoking near storage areas where boxes or containers can easily start a fire.
- Keep flammable liquids in labeled fireproof containers and store them in safety cabinets approved to store flammable liquids.
- Keep above-ground fuel storage tanks at least 40 feet from buildings. This minimizes the potential for a fire to spread and is generally required by law.

## Provide Adequate Fire Extinguishers

- You must have fire extinguishers located every 75 feet in all of your buildings.
- You must have fire extinguishers located every 10 feet inside storage areas that contain flammable liquids.
- Select and provide the right kinds of fire extinguishers. Different types of extinguishers work on different kinds of fires. Using the wrong kind of extinguisher on a fire can cause the fire to spread even faster.
  - ◊ Make sure all units match the type of fires that could develop in the area where they're located.
- Read the instructions for all fire extinguishers before a fire ever starts.
- Train employees on the proper use of fire extinguishers. Local fire departments or fire equipment distributors often offer hands-on fire extinguisher training.
- Once a month: visually check all fire extinguishers.
- Every five years: hydrostatically test your fire extinguishers. See OSHA's Evacuation Plans and Procedures eTool – Fire Extinguisher Hydrostatic Testing: [http://www.osha.gov/SLTC/etools/evacuation/portable\\_hydro.html](http://www.osha.gov/SLTC/etools/evacuation/portable_hydro.html)
- Fire extinguishers can't do the job of a fire department. If a fire is past the point of being able to fight it with a fire extinguisher, sound your evacuation alarm, get out of the building, and dial 9-1-1 or your local fire department.

## Know Your Fire Extinguishers

Fire extinguishers are divided into four categories, based on different types of fires.

- **Class A** extinguishers are for ordinary combustible materials such as paper, wood, cardboard, and most plastics. The numerical rating on these types of extinguishers indicates the amount of water it holds and the amount of fire it can extinguish.
- **Class B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease and oil. The numerical rating for class B extinguishers indicates the approximate number of square feet of fire it can extinguish.
- **Class C** fires involve electrical equipment, such as appliances, wiring, circuit breakers and outlets. Never use water to extinguish class C fires - the risk of electrical shock is far too great! Class C extinguishers do not have a numerical rating. The C classification means the extinguishing agent is non-conductive.
- **Class D** fire extinguishers are commonly found in a chemical laboratory. They are for fires that involve combustible metals, such as magnesium, titanium, potassium and sodium. These types of extinguishers also have no numerical rating, nor are they given a multi-purpose rating - they are designed for class D fires only.

Some fires may involve a combination of these classifications. Here are the **most common types of fire extinguishers**:

- **Water extinguishers** or APW extinguishers (air-pressurized water) are suitable for **class A fires only**. Never use a water extinguisher on grease fires, electrical fires or class D fires - the flames will spread and make the fire bigger!
- **Dry chemical** extinguishers come in a variety of types and are suitable for a combination of **class A,**

**B and C fires.** These are filled with foam or powder and pressurized with nitrogen.

- ◇ **BC** - regular dry chemical extinguisher. Leaves a mildly corrosive residue which must be cleaned immediately to prevent any damage to materials.
- ◇ **ABC** - multipurpose dry chemical extinguisher. Leaves a sticky residue that may be damaging to electrical appliances such as a computer.

Unlike CO2 extinguishers, dry chemical extinguishers leave a non-flammable (but potentially damaging) substance on the extinguished material, reducing the likelihood of re-ignition.

- **Carbon Dioxide (CO2) extinguishers** are used for **class B and C fires**. CO2 extinguishers contain carbon dioxide, a non-flammable gas, and are highly pressurized. They don't work very well on class A fires because they may not be able to displace enough oxygen to put the fire out, causing it to re-ignite.

CO2 extinguishers don't leave a residue like CO2 extinguishers.

### Fire Extinguisher Forms

## FIRE EXTINGUISHER RECHARGE & REINSPECTION RECORD

### INSPECTION CHECKLIST

1. Access to, or visibility of, the extinguisher shall not be obstructed
2. The operating instructions on the extinguisher nameplate shall be legible and facing outward.
3. Has the extinguisher been actuated or tampered with? Any seals or tamper indicators that are broken or missing shall be replaced.
4. Visually examine externally. Check that there is no obvious physical damage or condition that would prevent operation.
5. Inspect for any evidence of corrosion, leakage or mechanical injury. If so, extinguisher needs to be hydrostatically tested.
6. Check that the extinguisher is fully charged and operable. Be sure hose and/or nozzle is unobstructed.
7. Sign-off inspection on reverse with the date (month/year) and your initials.

### HYDROSTATIC TEST RECORD

Date of Test \_\_\_\_\_ Test Pressure \_\_\_\_\_  
Tested By \_\_\_\_\_

INSPECT THIS EXTINGUISHER CAREFULLY BEFORE SIGNING REINSPECTION RECORD

HELP PREVENT FIRE

## REINSPECTION RECORD

DATE	BY	DATE	BY

## RECHARGE RECORD

DATE	BY	DATE	BY

## Key points

Keep the worksite clean and orderly.  
Minimize fire hazards.  
Know what to do if a fire breaks out.  
Know how to use fire extinguishers.

Do:

Keep your work area clean and uncluttered.  
Make sure all stairs, aisles, and exits are free from obstructions.  
Report potential fire hazards to your supervisor.  
Comply with all “flammable” warnings.  
Keep flammable liquids in labeled fireproof containers.

Don't:

Store fuel in food or drink containers.  
Re-fuel engines inside buildings or when hot or running.  
Store compressed gases near a heat source.

## FAQs

Q. How can I develop an Emergency Action Plan?

A. The Pork Checkoff's emergency action plan tool guides producers through the planning and documenting of an emergency response plan. The tool is Web-based and can be found at <http://eap.pork.org>. Users are instructed to log in, describe their operations and consider various situations that can put a farm's employees, animals or facilities at risk. Additionally, users are required to think about and describe the resources, including people, equipment and locations, that can be of use in case disaster strikes. If you don't have computer access, you can create a written emergency action plan for your operation.

Q. How do I correctly use a fire extinguisher?

A. The acronym to remember when dealing with fire is PASS. These letters are used to help you remember the correct way to operate a fire extinguisher.  
Pull the pin. To do this, hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.  
Aim low. When using the extinguisher, point the nozzle at the base of the fire.  
Squeeze the lever slowly and evenly.  
Sweep the nozzle from side-to-side at the base of the fire.  
When using the extinguisher, be sure to keep your back to a clear exit so you can easily escape if the situation worsens or if the room fills with smoke.

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