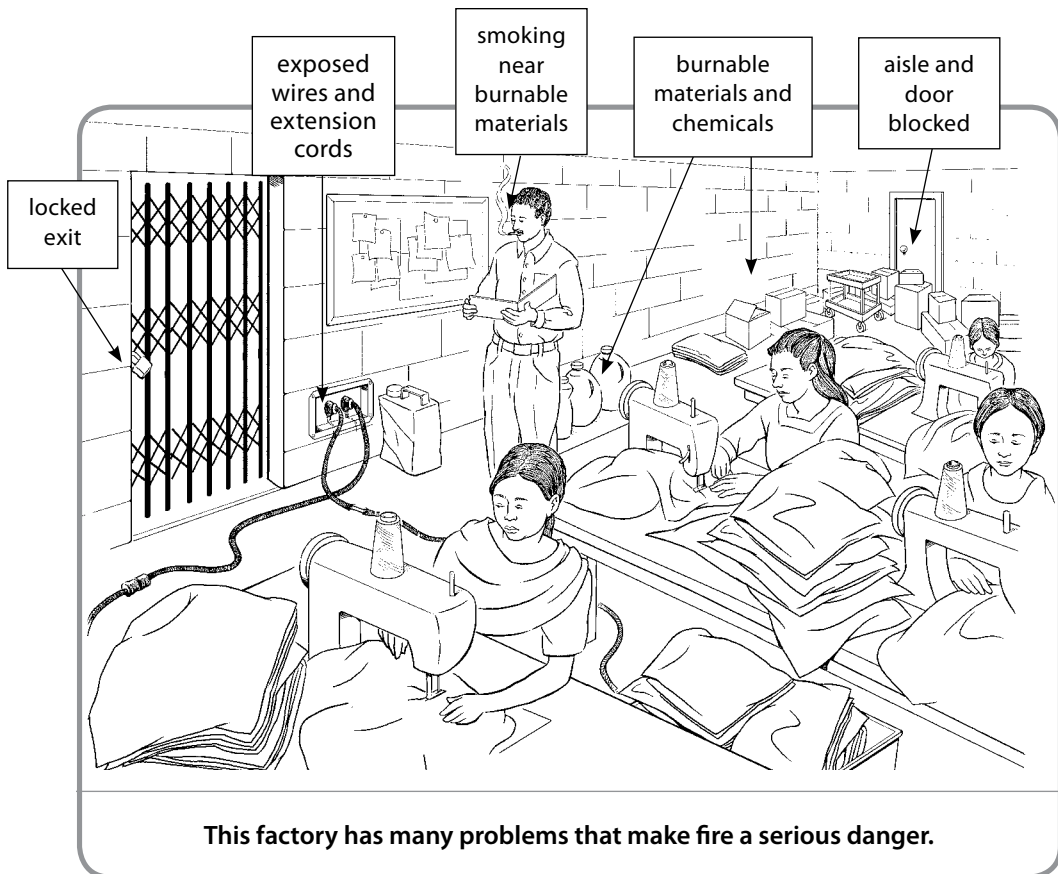


11 Fire

Fires are serious and often deadly for workers in factories and dormitories, and workers who do factory work at home. Of the many dangers workers face, fire is one that can easily be prevented, or contained and extinguished when it does happen. Most countries have laws that require employers to provide fire safety in their workplaces. Even though it is not very expensive for employers to comply, many factory owners continue to violate fire safety laws and put workers' lives at risk.



Store solvents safely

Because solvents catch fire more easily than almost anything else, store solvents safely to prevent fires. Solvents should:

- always be stored in tightly sealed, fireproof containers.
- never be stored in dormitories, stairways, or near fire exits.
- not be stored near other chemicals or materials that catch fire easily, such as fabric or foam insulation.
- not be used or stored near hot equipment, or machines or work processes that create heat or sparks.
- be kept in small containers in work areas. Store larger containers of solvents in a well-ventilated, fireproof chemical storage room away from work areas.

Good maintenance prevents fires:

- clean the work area often of paper, dust, fabric scraps, cardboard, and other materials that can easily catch fire.
- keep equipment, machines, and tools in good repair and safely located.
- replace or repair broken or frayed electrical wires right away.
- do not smoke near anything that could catch fire, such as fabric, dust, chemicals, or containers of gas, kerosene, or propane.
- make sure curtains, bedding, and clothing in dormitories are kept away from stoves, heaters, and lamps.
- raise awareness around fires and fire safety.

Be prepared in case of fire

Many lives can be saved if factories have:

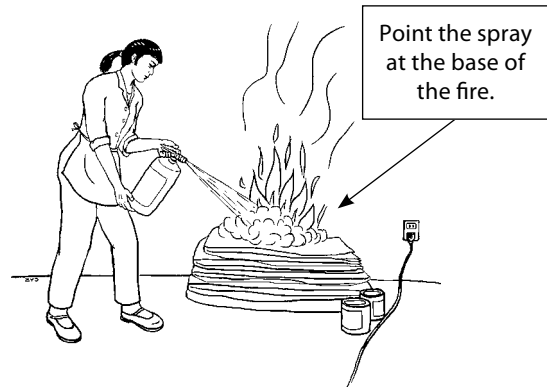
- **fire alarms** that make a loud noise so everyone will know a fire has started. Workers in one part of a building may not see or smell a fire in another part until the fire is large. An alarm can also wake workers sleeping in a dormitory in the same or nearby buildings. Make sure alarms are checked regularly and that their batteries still work.
- **exits** that open outward and are always unlocked when people are in the building. Exits should be well-lit and marked with signs. In a multiple story building where stairs are the way out, stairways need to be well-lit, wide, and strong enough so workers can exit safely.

- **open passageways** that lead directly to exits. Passageways should be at least 1 meter wide, and even wider for large work areas. It is very important to keep passageways clear and free from boxes, racks, and containers.



Practicing how to get out of the factory or dormitory quickly and safely, and where to meet outside, helps keep people from panicking if there is a real fire. Organize a “fire drill” in your factory.

- **an overhead sprinkler system** with smoke detector, water pipes, and plenty of water. The sprinklers should start automatically when a fire starts.
- **fire extinguishers** should be provided by the factory. They should be well-marked and easy to reach, checked regularly, and replaced when expired. Fire extinguishers let you put out a small fire quickly and prevent it from spreading. Water buckets usually do not hold enough water to put out a fire and it is dangerous to put water on electrical, chemical, or grease fires.



A fire extinguisher can put out a small fire quickly.

Make sure all workers know how to use a fire extinguisher. When you use a fire extinguisher, make sure the fire is on one side of you and the exit on the other, so you will not be trapped if you cannot put the fire out. Use role plays to practice fighting a fire.

Fires need 3 things:

- a flame, spark, or something hot to start the fire
- fuel (materials) to burn
- oxygen to keep the fire burning

When you remove or block one of the things a fire needs, a fire cannot burn. It is important to know about and practice ways of stopping a fire, but also practice how you can get out of the factory quickly if a fire starts.

Factory fires: Preventable disasters

New York 1911

On March 25, 1911 about 500 immigrant women were working in the Triangle Shirtwaist factory in New York City, USA, when a fire started. They tried to escape, but the doors were locked. The fire escape was so weak, it collapsed. Other workers tried to escape the flames by jumping out windows 9 floors above the street. In just 25 minutes, 146 women workers died.



The Triangle fire made people realize how unsafe factories were, and workers' organizations in the USA pressured the government to pass and enforce fire safety laws.

Bangkok 1993

On May 10, 1993 a fire broke out in a storage area of the Kader toy factory in Bangkok, Thailand. The building's fire alarm did not sound and workers were told to keep working so they could finish an order. The fire spread quickly. Workers had been locked in to force them to work overtime, and there were no fire exits or fire extinguishers.



188 workers were killed and hundreds more injured. The survivors and the victims' families used their anger and sadness to fight for safety and helped form ANROEV, the Asian Network for the Rights of Occupational and Environmental Victims.

Dhaka 2012

On November 24, 2012 more than 100 people were killed when fire raged through the Tazreen factory in Dhaka, Bangladesh, which was making clothing behind locked doors for Walmart and other brands. Only a few months earlier, a Walmart representative had told the Bangladesh Garment Manufacturers and Exporters Association that it cost too much to put fire safety systems in garment factories.

Workers will continue to die in preventable factory fires until local factories and the big international brands that purchase from them place as much value on workers' lives as they do on low prices and high profits.

Who is to blame for factory fires?

*“The **sourcing departments of the brands** are to blame. They keep pushing everyone for lower prices. You have one department of the company supporting the campaign for fair wages, but then in the very next room the sourcing department is asking that workers work for 10% less wages.”*

— Labor organizer

*“The **buyers for the brands** are to blame. They say we have to improve working conditions so they can tell their customers they are good companies. But when we ask them to pay just a few cents — cents! — more per piece, which would go to workers’ welfare, they refuse! They say the economy is bad, but we see that they are making a lot of money.”*

— Ministry of Labor

*“The **Labor Ministry** is to blame. Nobody told me I had to install an emergency exit. I could have done it, but nobody ever suggested I do it. Why am I to blame for something nobody told me I had to do?”*

— Factory owner

*“The **owners** are to blame. The factories should be closed until they are safe. But the owners are very influential. They pay off the government.”*

— Fire official

Prevent fires while working at home

A fire can spread quickly in a home where factory work is done. There is lots of material to burn and electrical connections may be poor and are often overloaded. If you do factory work at home:

- keep chemicals away from open flames and do not smoke inside.
- store solvents and other flammable materials in metal boxes or barrels and help neighbors do this too.
- keep windows and doors open for ventilation, and use fans.
- if a fire starts in a cooking pot, cover it with a lid to smother it.
- keep a bucket of sand or earth on hand to use to smother fires, especially fires caused by chemicals or electrical problems, and for wood or cloth fires when water pressure is too low to depend on a hose.
- ask your employer for a fire extinguisher. If he won’t give you one, you can make a small one for home use (see page 216).
- make sure there is a clear exit path out of the house.

Prepare for fire. Plan with your neighbors what to do if a fire breaks out in your community.

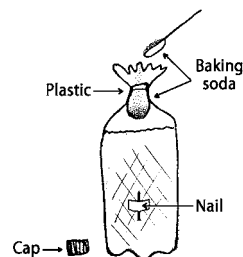
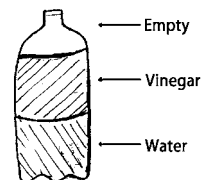
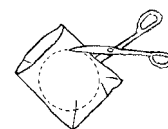
- **Let people know there is a fire.** Bang on an iron pipe to sound the alarm and alert everyone to danger.
- **Plan how to fight the fire.** Organize people to work as a “bucket brigade,” to bring pails of water, sand, or dirt.
- **Where to meet after.** Name a place, such as a park or large building, where people can agree to meet in case of an emergency, and later to make sure everyone is all right.

How to

Make a fire extinguisher at home

You will need:

- plastic bottle, half liter or more
 - water
 - vinegar (any kind)
 - baking soda (sodium bicarbonate)
 - small plastic bag, cut into a circle of about 3 inches or 15 cm in diameter
 - a nail, screw, or pin
 - tape
1. Fill $\frac{1}{2}$ of the plastic bottle with water. Then fill most of the remaining space with vinegar, but be sure to leave about 2 inches of space at the top.
 2. Place the circle of plastic on top of the opening of the bottle. Use your finger to push the middle of the circle inside the mouth of the bottle. Put 2 to 4 spoonfuls of baking soda inside, using your finger to push the plastic farther into the bottle as it fills. Roll the ends of the plastic into a cone so the cap can be screwed on the bottle. Close the bottle as soon as the plastic packet of baking soda goes in.
 3. Close the bottle tightly and store upright. The packet of baking soda will sit on top of the liquid. Tape the nail to the bottle.



Prepare several of these in advance.

To use, shake the bottle hard and fast to mix the baking soda, vinegar, and water. When you start to see foam, use the nail to make a hole in the bottom of the bottle (feel for a thinner spot in the plastic) and point the spray at the fire. Continue shaking the bottle as you spray the fire.





First Aid

First aid for burns

For any burn, take off clothing and jewelry near the burned skin and put the burned area under cool (not iced) water for at least 30 minutes.

Minor burns that do not form blisters: Put the burned area under cool water immediately. This will reduce pain and lessen the damage. Burns can hurt, so use a pain medicine if needed.



Burns from hot water or oil: Take off any clothing that has the hot oil or water on it. Immediately rinse the burn with cool water.

Burns that cause blisters: Put the burned area in cool water immediately. Do not break the blisters. If the blisters break, wash gently with mild soap and water, but do not use a disinfectant or iodine. Keep the burn clean and protect it from dirt, dust, and flies with antibiotic ointment or honey, and sterile gauze or bandages. If healing is slow or the skin stays red, swollen, or painful, see a health worker. You may need treatment for infection.

Burns from chemicals: See page 175 in chapter 8: Chemical dangers.

Go to a health center immediately for:

- **Large or deep burns:** Burns that cover a large area of the body or expose raw or charred flesh are always serious.
- **Burns that cover a joint, the face, or the genitals:** These can lead to disability.
- **Burns combined with other injuries.**
- **Burns on children:** It is harder for children to recover from burns than adults.

Note: Never put grease, fat, animal skin, coffee, herbs, or feces on a burn. They might cause an infection or prevent the skin from healing.

Breathing smoke

Breathing smoke can burn the lungs, which can be very serious. Go to a health care center immediately if there is difficulty breathing, a burning feeling in the lungs, a tight chest, or severe coughing.

When near a fire, cover your mouth and nose.