

The factory should provide **fire extinguishers** that are well-marked and easy to reach. Extinguishers let you put out a small fire quickly and prevent it from spreading. Make sure all workers are trained to use a fire extinguisher. Water buckets usually do not hold enough water to put out a fire and it is dangerous to put water on electrical or chemical fires.

A fire extinguisher can put out a small fire quickly.

Point the spray at the base of the fire.



Working at home

If you are working at home, fires can be very dangerous. Often people are doing factory work in their kitchens or sleeping spaces, which means that too much clothing, papers, or wood is crowded into the space and can catch fire quickly.

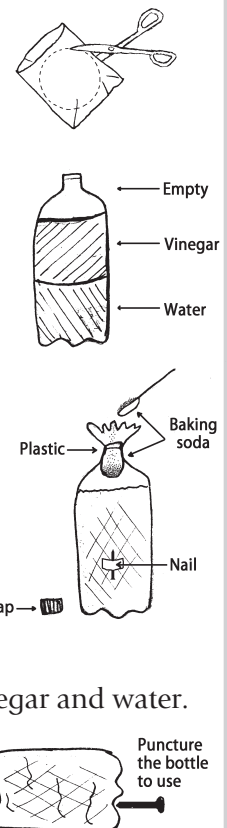
- Keep chemicals away from open flames and do not smoke inside.
- Keep windows and doors open for ventilation and use fans.
- If a fire starts in a cooking pot, cover it with a lid to smother it.
- Keep a bucket of sand or earth handy to use to smother fires, especially fires that are caused by chemicals or electrical problems because water might not help.
- Ask your employer for a fire extinguisher. If he won't give you one, you can make one for home use.

How to make a fire extinguisher at home

You will need:

- plastic bottle—1-2 liters or more
- water
- vinegar (any kind you have)
- 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, taped to the bottle

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 insert the center of the plastic inside the mouth of the bottle. Put 2 to 4 spoonfuls of baking soda inside, using your finger to push the plastic further into the bottle as it fills. Roll the ends of the plastic into a cone so that it can be inserted into the bottle. It is very important that you have the cap ready to be put on the bottle because the bottle needs to be closed as soon as the bag of baking soda goes in.
3. Insert the bag and close the bottle tightly. The baking soda bag is likely to sit on top of the water and vinegar mixture.
4. To use, shake the bottle hard and fast to mix the baking soda with the vinegar and water. When you start to see foam, use the nail to make a hole in the bottom of the bottle (look for a soft spot in the plastic) and point it at the fire. Continue shaking the bottle as you spray it on the fire.



Fighting Factory Fires

100 years after the Triangle Fire

Fires are a serious and often deadly hazard for workers in factories and workers who do factory work at home. Of the many hazards workers face, fire is one that can 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.

New York 1911

On March 25, 1911 about 500 immigrant women were working in the Triangle Shirtwaist factory in New York City when a fire started. As they tried to escape, they were stopped by locked doors. 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 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 small 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 the owners could finish an order. The fire spread quickly. Workers had been locked in for forced overtime, and there were no fire exits or fire extinguishers. 188 workers were killed and hundreds more were injured in the worst industrial fire in history. The survivors and the victims' families used their anger and sadness to fight for safety and helped to form ANROEV, the Asia Network for the Rights of Occupational and Environmental Victims.

Bangladesh 2010

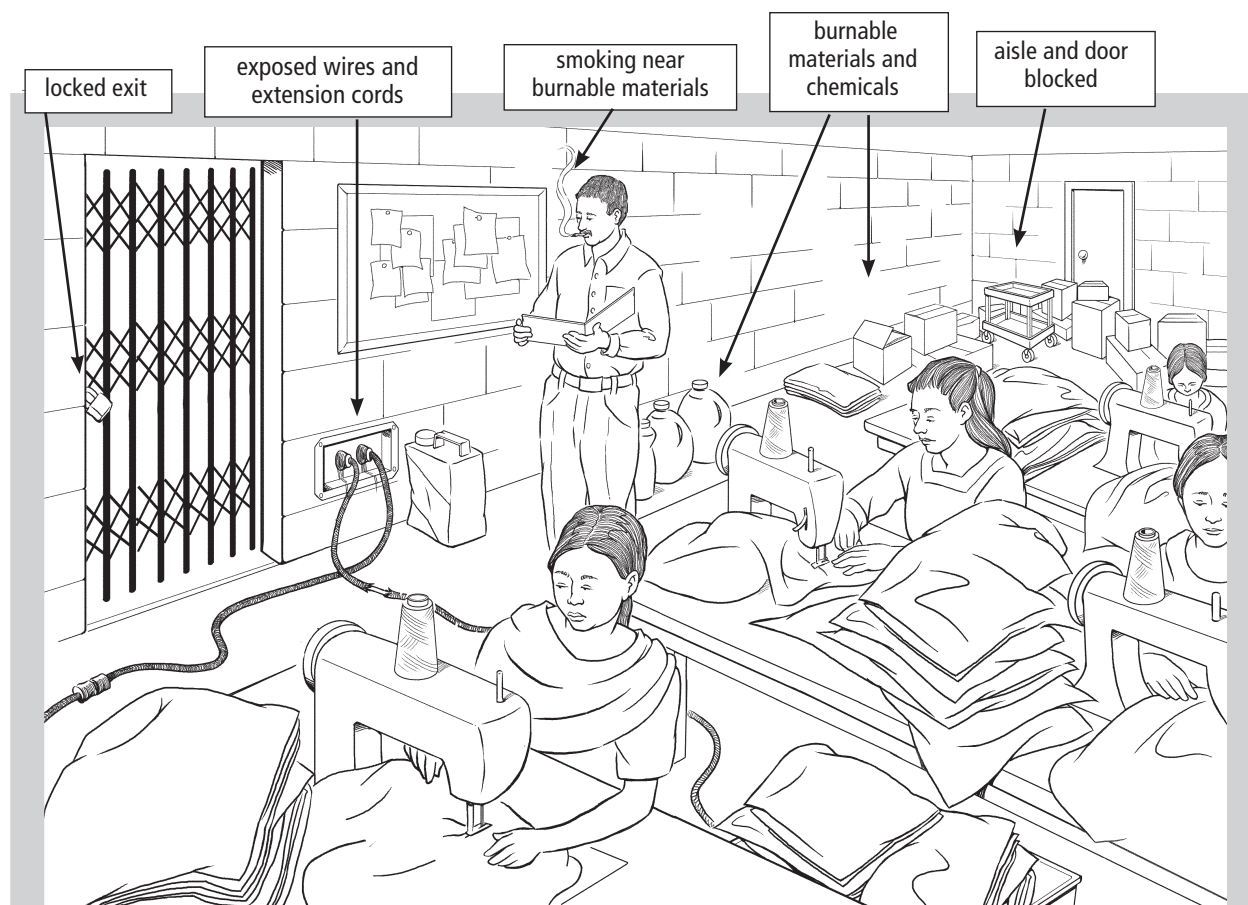
In 2010, several garment factory fires in Bangladesh took the lives of more than 100 workers. Despite worker organizing and strong international campaigns, Bangladeshi companies and the international brands that buy from them continue to operate unsafe factories.

They still lock workers inside factories, turning workplaces into death traps and ensuring that many more workers in Bangladesh will die horribly in factory fires.



This material was taken from Hesperian's book-in-progress *A Worker's Guide to Health and Safety*. You can learn more about this resource on our website www.hesperian.org or by writing to us at workersbook@hesperian.org.





This factory has many problems that make fire a serious danger.

Prevent fires

Organized workers in many countries have been able to demand safer and better conditions through campaigns and by using and strengthening existing international, national, and local laws. While working to create lasting change in your factory, there are things you, other workers, and factory managers can do to reduce the risk of fire in your workplace. Make a fire prevention plan and organize workers and managers to take responsibility to:

- store solvents safely. Solvents catch fire more easily than almost anything else. 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 fireproof chemical storage room away from work areas.
- clean up paper, dust, fabric scraps, cardboard, and other materials that can easily catch fire.
- inspect machines, electrical wiring, and equipment to make sure they are safe to use and safely located. In crowded dormitories, make sure curtains, bedding, and clothing are kept away from stoves, heaters, and lamps.
- keep equipment and tools that produce heat in good repair.
- 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.

Be prepared in case of fire

Many lives can be saved if factories have:

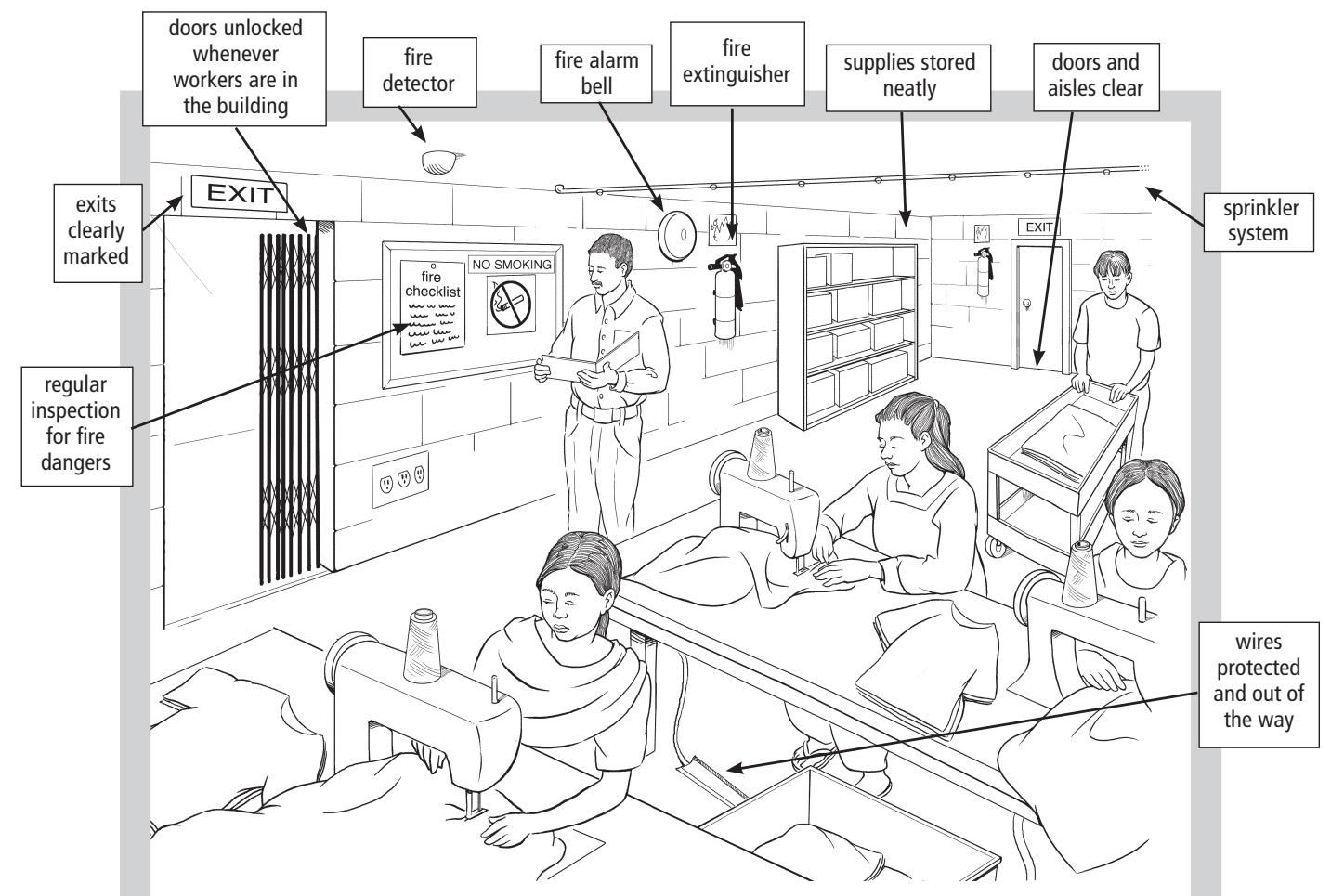
- **fire alarms** that make a loud noise so everyone will know a fire has started. Workers in one part of a building may not see or smell a fire in another part until the fire is large. An alarm can also alert workers sleeping in a dormitory in the same or nearby building. Make sure alarms are checked regularly and that their batteries still work.
- **exits** that open outward and are always unlocked when people are in the building. Exit doors should be well-lit and marked with a sign workers can understand. If it is a multiple story building where the stairs will be the exit route, stairways need to be large and strong enough to make sure 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 not cluttered with boxes, racks, and containers.



Practicing how to get out of the factory or dormitory quickly and safely, and where to meet outside, helps prevent people from panicking if there is a real fire. Organize a "practice evacuation" in your factory.

- **an overhead sprinkler system** with smoke detector, water pipes, and plenty of water. The sprinklers should open automatically when a fire starts.
- **fire extinguishers** (see next page)



This factory has made improvements to prevent fires.