

Worker Safety in Recycling Facilities



A project of the Labor Occupational Health Program (LOHP) at UC Berkeley and the International Longshore and Warehouse Union (ILWU) Local 6



Worker Safety in Recycling Facilities

While recycling is good for the environment, it can be dangerous for workers. Workers in the recycling industry have one of the highest injury and illness rates in California. Some of the most common injuries include:

- Sprains and strains
- Cuts
- Needle stick injuries
- Being hit by an object.

Many of these injuries are preventable. This booklet will help you learn about the hazards on your job and your rights to a safe workplace. You will learn how to protect yourself from:

- Dust, mold or chemicals that may be in the air you breathe
- Ergonomic hazards that can cause back injury and other aches and pains
- Needles and materials that have blood or body fluids
- Other hazards, like noise or traffic.

Managers and employers are responsible for protecting workers' safety. The booklet describes what your managers can do to protect you from these hazards.

Worker Safety in Recycling Facilities is a joint training project of the Labor Occupational Health Program (LOHP) at UC Berkeley and the International Longshore and Warehouse Union (ILWU) Local 6. For more information, please contact:

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“When I leave work there is dust caked all over my body. I don’t even want to know what our insides look like.”

“Can we get respiratory problems from everything we are breathing in?”

Dust and Other Hazards in the Air

Recyclable materials can break, fall apart and start to rot. The dumping of materials and the mixing and shaking on the line puts dust and possibly other harmful things into the air:

- **Dust:** from paper, plastic, glass and other materials that start to break down
- **Mold:** from wet paper, wood and rotting food and waste
- **Bacteria:** from rotting materials or feces
- **Chemical vapors:** from cleaning products, pesticides, paints and solvent
- **Diesel exhaust:** from trucks, bulldozers and other vehicles.

Health effects

The **dust and mold** found in recycling facilities can cause health problems such as:

- Irritated eyes, nose and throat
- Cough, runny nose and stuffy nose
- Allergies
- Long-term health effects, like asthma and lung diseases.

Bacteria and mold can also cause itchy eyes and skin and flu-like symptoms.

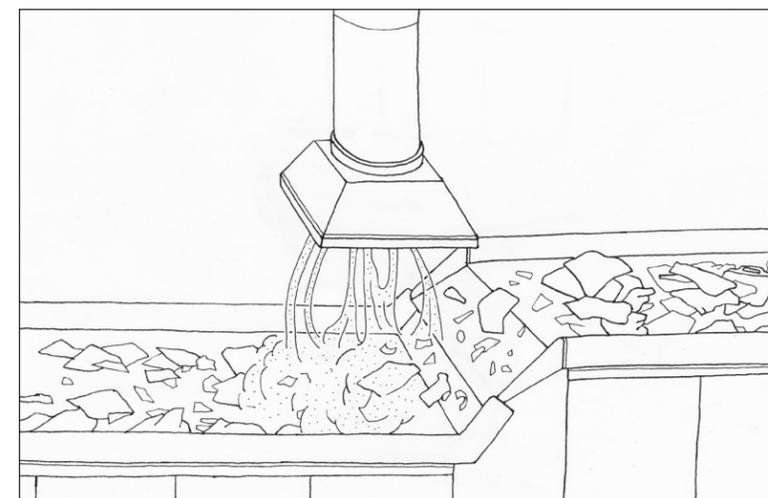
Chemicals can irritate the eyes, nose and throat. Some chemicals can cause skin rashes and burns or cause health problems over time.

Diesel exhaust can cause asthma and can lead to lung cancer.

Making the workplace safer

◆ What management can do:

1. Prevent dust and mold from getting into the air.
 - Install local exhaust ventilation. This exhaust system should be close to the belt to remove or “suck” dusts away before they get into the rest of the workplace.
 - Install and use misters to keep dust down.



Local exhaust ventilation

Does your facility receive Construction Materials and Debris (C&D)?

Material from construction sites can have dangerous dusts and fibers. Some of these can cause serious lung problems. For example:

- **Asbestos** found in acoustic tiles, insulation and floor tiles
- **Fiberglass** in insulation
- **Silica** in cement or brick.

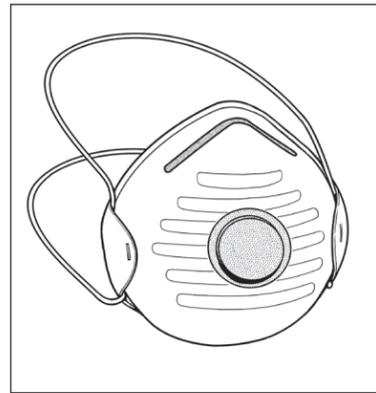
Also, painted surfaces or paint chips could have **lead**. Lead can increase blood pressure and can make it more difficult to think, learn and remember.

Because these are so dangerous, employers need to take specific steps to protect and train workers in C&D. They also need to make sure workers don’t take home this dust on their clothes.

2. Have a respiratory protection program.

Two types of respirators can protect workers from dust in recycling facilities:

- A N95 dust mask



- An “air purifying” or “half-mask” respirator that has N100 or P100 cartridges.



Before workers receive respirators, employers need to send them for a medical exam and make sure the respirators fit each worker properly. Workers should also be trained on the use, cleaning and storage of respirators.

3. Have a plan to handle hazardous materials safely.

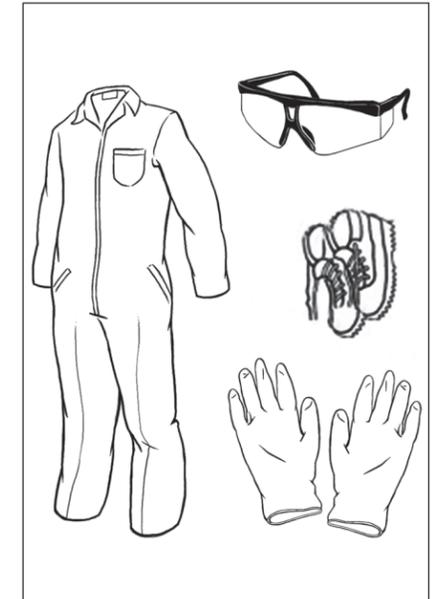
People may put chemicals into their recycling bins, even though these should go to the household hazardous waste drop-off locations. Have a plan for protecting workers if these products show up on the line. Train workers to recognize dangerous products.

4. Remove diesel exhaust from the workplace.

- Whenever possible, keep trucks from coming into indoor work areas.
- If trucks need to enter the building, they should be turned off right away. No idling.
- If trucks must idle, install a system to remove the exhaust from the building.

5. Make sure workers can wash up before eating and drinking, and that they don’t take the dust home. Provide:

- Work clothes, including coveralls, goggles, gloves and work shoes
- Showers and changing rooms, with a place to store clean street clothes
- Soap and water for washing hands and face before eating and drinking
- A clean lunch and break area that is not in the work areas.



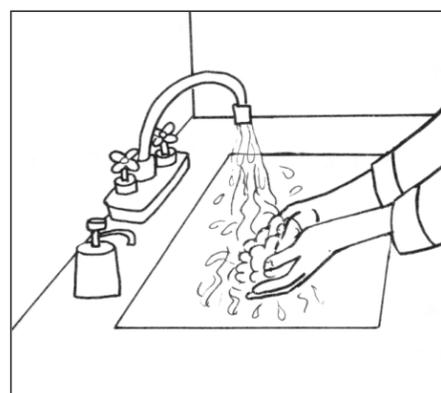
Work clothes



Lockers to store clean clothes

Workers, to protect yourselves:

1. Wear a respirator as instructed. Also wear gloves and safety glasses.
2. Clean work surfaces and floors daily.
 - Don't sweep or use a pressured spray with water because this just puts more dust into the air. Instead, use a mop and water.
 - Mop up water left on floors or surfaces so that mold and bacteria don't grow on them.
3. If you are an operator, such as a bulldozer driver or a shredder operator that works in a booth or cab: stay inside the booth with windows closed while you work.
4. Wash your hands and face before eating and drinking and before going home.
 - Shower and wash your hair at the end of the work day.
 - If you don't shower at work, shower and wash your hair as soon as you get home.



Wash your hands

5. Leave work clothes and shoes at work. Change your clothes at work, when you arrive and before you leave.
6. If you have respiratory problems, tell your doctor about your job and the dust and mold that may be in the air.



Ergonomic Hazards

Working long days on the conveyor belt sorting plastic, glass and other materials can create wear and tear on the body. When you lift heavy items, twist, reach or do the same task over and over again, you may develop injuries or aches and pains that are called “ergonomic injuries.”

Health effects

Ergonomic injuries affect your muscles, nerves, bones and tendons. You could feel aches and pains in different parts of your body. Some common symptoms include:

- Soreness or pain (aching or sharp)
- Numbness
- Stiffness
- Tingling (as though the area is “asleep”)
- Swelling
- Weakness
- Loss of coordination

“I know people who have injured their arms, backs, hips...from the heavy loads that we carry and the repetitive work that we do.”

What can cause these injuries?

These injuries are very common. To see if you are at risk in your job, answer these questions:

1. Do you do the same task over and over again? [yes] [no]
Do you have to make repetitive movements?
2. Do you have to reach, bend or twist? [yes] [no]
3. Do you lift heavy items? [yes] [no]
4. Do you work in one position for a long period of time? [yes] [no]
5. Do you lean against hard edges or hard surfaces? [yes] [no]
6. Is the workplace poorly lit? [yes] [no]
7. Do you have to work too fast? [yes] [no]

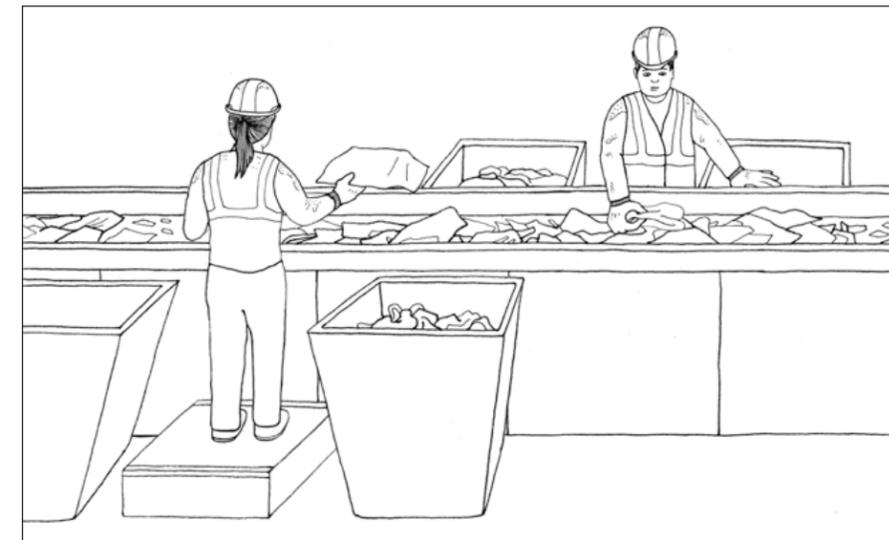
If you answered “yes” to any of these questions, you could develop an ergonomic injury because of your job. The more times you answered “yes,” the greater the chance of an injury.

Making the workplace safer

◆ What management can do:

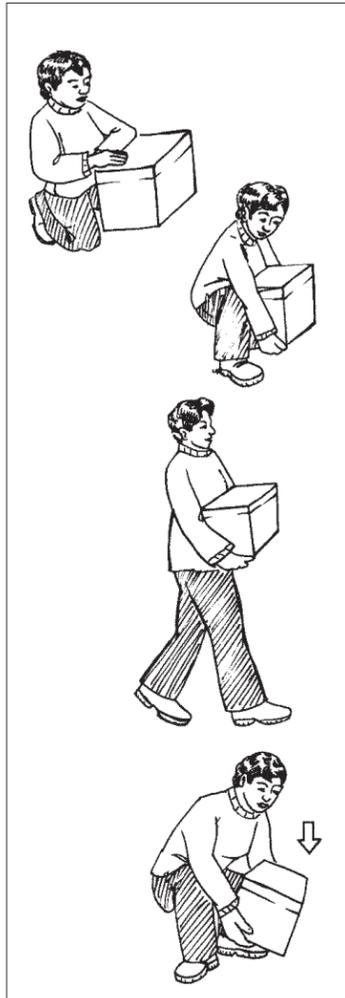
1. Look at the conveyor belt’s design and set up. Although it may seem like a difficult task to have a belt that “fits” every worker, here are some tips:
 - **Height** – if the belt height is too high or low, workers have to stretch or stoop.
It is best if the belt is just below workers’ elbows. Since workers are of different heights, you can fix the belt height to “fit” the tallest workers, and provide platforms for other workers to stand on. Offer a variety of platforms so workers can pick one that works for them.

- **Width** – if the belt is too wide, workers have to reach too far to sort.
The recommended width of a conveyor belt is 1.5 feet wide, so workers do not have to reach too far. If there are workers on both sides of the conveyor belt, then the belt can be 3 feet wide.
- **Speed** – It shouldn’t be too fast. Workers should be able to stop the belt if needed.
Making sure the speed of the belt isn’t too fast is good for preventing injury. It also improves workers’ ability to sort the materials efficiently.



Good position at the conveyor belt

2. Remove anything that is in the way so that workers can be right next to the belt.
3. Design the sorting stations so there are both sitting and standing positions.
4. When workers stand for a long time:
 - Install a foot rail or foot rest so workers can shift their weight from one leg to the other.
 - Provide “anti-fatigue” floor mats.

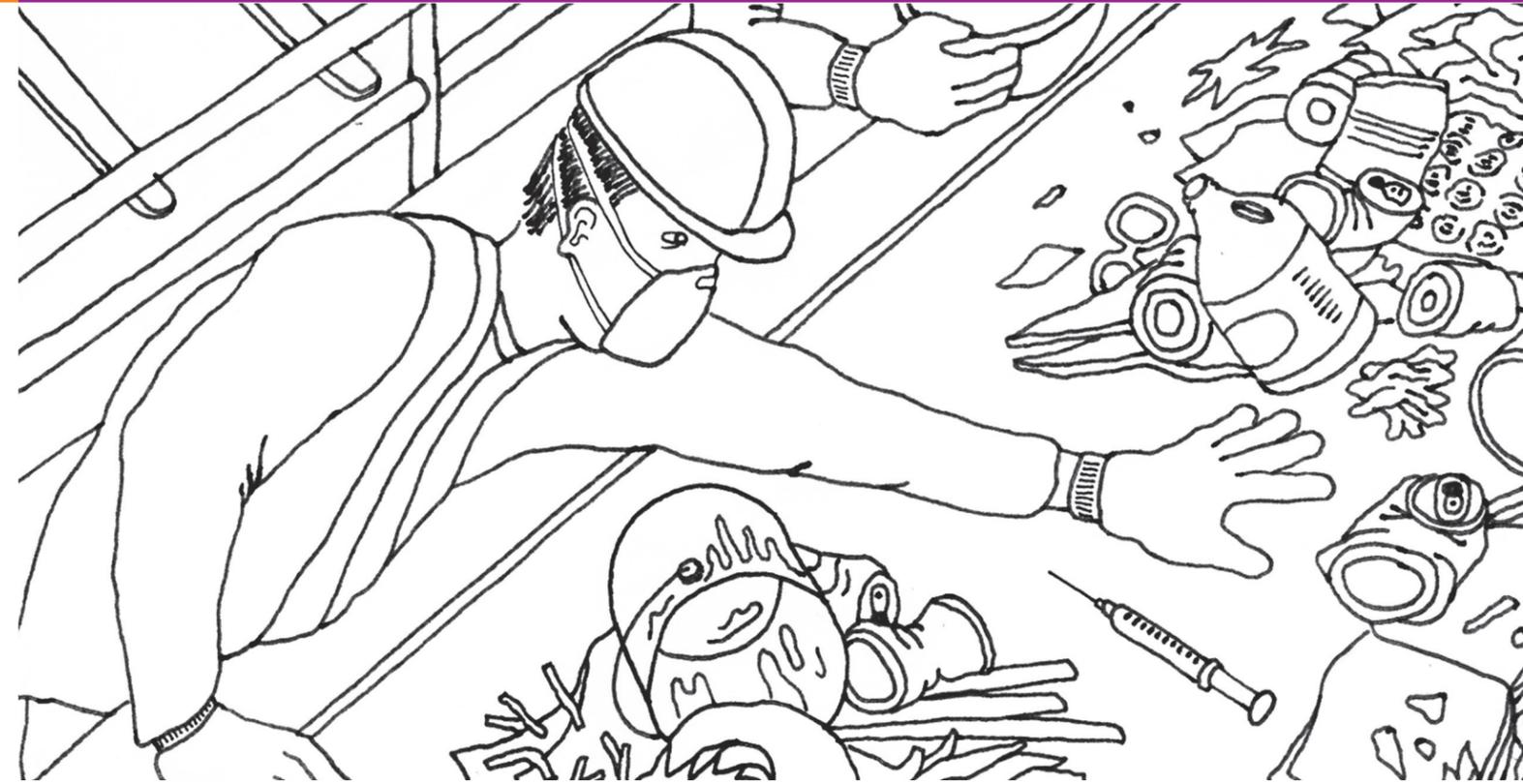


Lift safely

5. Rotate jobs so workers can change positions.
 - Even rotating to the other side of the belt is helpful as it puts less strain on one arm.
 - Even better, rotate workers to jobs away from the conveyor.
6. Encourage workers to take breaks to rest and recover.
7. Reduce the need for lifting and carrying. Provide hand trucks and other lifting devices.
8. Reduce the amount of weight that workers need to lift:
 - Break up larger items or bundles into loads that weigh less.
 - Use smaller boxes or containers.
 - Have a policy that anything over a certain weight is lifted by two or more workers.
9. Provide training on how to lift items safely.
10. Make sure the worksite has good lighting and a comfortable temperature.

Workers, to protect yourselves:

1. Check your position at the conveyor belt.
 - Avoid bending, twisting or reaching too far.
 - Make sure you can stand right next to the conveyor belt and that there isn't anything in your way.
 - Don't lean against the hard edge.
 - Change to the other side of the belt from time to time.
2. Reduce the amount of weight that you lift and follow tips for safe lifting:
 - Get as close as possible to the load.
 - Lift with your legs, not your back.
 - Keep your back straight and bend at the knees.
3. Often take a few moments to stretch.



Needles and other materials with blood

People may put needles, syringes or other items with blood or body fluids into recycling bins, even though these items are not supposed to go there. If these items are contaminated, workers could be exposed to infectious diseases.

Health effects

Some diseases that can be spread by blood are HIV/AIDS and two liver diseases called Hepatitis B and Hepatitis C. You may get sick if infected blood or body fluids get inside your body. For example, if:

- You have a cut, open sore, rash or chapped area on your skin.
- Something splashes into your nose, eyes or mouth.
- You get pricked or cut by a used needle, razor or broken glass.

“One of the hazards we encounter in our workplace is needles.... you could get injured or infected if you get cut or pricked by something.”

Making the Workplace Safer

The goal is to prevent workers from coming into contact with blood or body fluids. Ideally the public would be educated to not put needles, medical waste or other contaminated items into their recycling bins. This way, contaminated materials wouldn't show up at the facilities!

◆ What management can do:



Stop the line if you see a needle

1. Have a plan to handle needles and other contaminated materials safely.

- For example, workers who see a needle or bloody item are to stop the line and call a supervisor.
- Only a trained supervisor or worker should pick up needles or other bloody items.



Only a trained supervisor or worker should pick up needles

- To pick up needles safely:
 - Use a tool such as pincer tools, tongs or tweezers. Do not touch needles with your hands.
 - Use gloves that are called “puncture-resistant” (needles cannot go through them as easily). For example, Hexarmor gloves.
 - Bring the sharps box to the conveyor belt. The box must be sturdy and have a biohazard label. This label shows that the container has items that may have blood.
- Any area that had needles or other materials with blood should be disinfected immediately.

2. Train workers so they know how to protect themselves. The training should be in the language they best understand.

- They should also know what to do if they get pricked by a needle or come into contact with other material that has blood.

3. Check the speed and load depth on the conveyor belt.

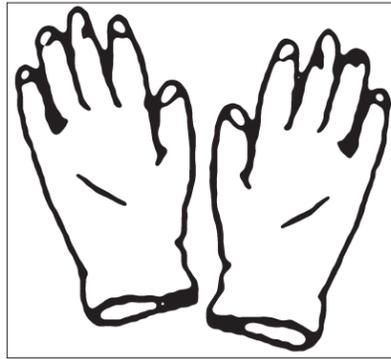
- Make sure the belt is not too fast and that the load is not very deep so that workers can see what they are sorting. Otherwise workers may not notice a needle until it's too late.

4. Offer free Hepatitis B vaccines.

- It's a good idea to offer Hepatitis B vaccines to all workers. The employer pays for the vaccine, and workers should be able to get it during work hours.



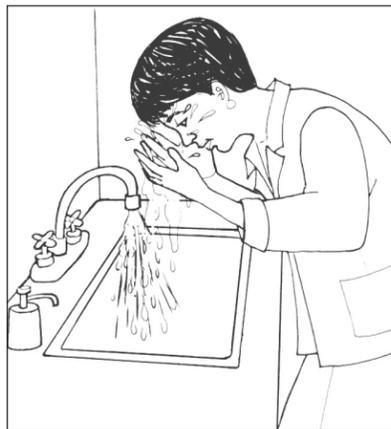
Offer Hepatitis B vaccines



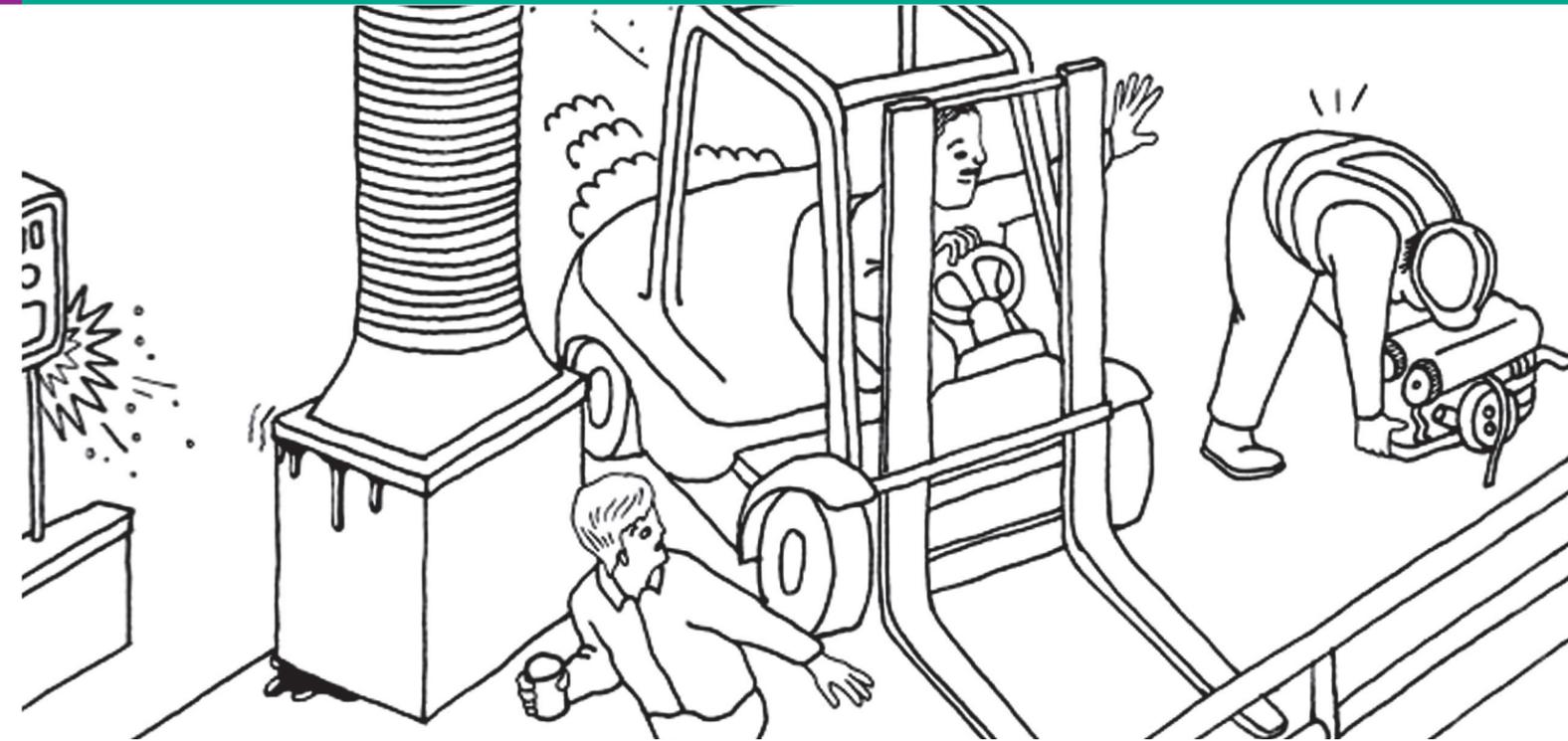
Wear gloves

Workers, to protect yourselves:

1. If you see any needles or items that may contain blood, do not touch them. Let the supervisor know right away.
 - Assume any needle or material with blood could be contaminated.
2. Wear gloves at all times.
 - There are gloves that are better to protect against needles, such as Hexarmor gloves.
 - Make sure they fit. Replace them if they get worn out, torn or damaged.
3. Wear an apron to protect your body from splashes.
4. Follow steps for safely cleaning and disinfecting equipment.
 - Use a broom or tool to pick up broken glass with blood on it. Never use your bare hands. Put the broken glass in a sharps container.
 - Wear utility gloves when cleaning. You can reuse them, but replace them if they get cracked, torn or damaged.
5. If you do get pricked by a needle or come into contact with bloody materials:
 - Wash your skin with soap and water right away.
 - Flush your eyes, nose, and mouth with water if your face was splashed. If water is not available use cleansing wipes.
 - Encourage the wound to bleed and do not suck the wound. Cover the wound with a dressing.
 - Tell your supervisor right away. If possible, the needle or other material should be sent for analysis to see if it contains contaminated blood.
 - By law, your employer must provide you with a Hepatitis B vaccine and send you for a free medical check-up. All information from your visit with the doctor is confidential.
 - Write down details of what happened and tell your union rep.



Wash up immediately



Other Hazards

Slips, Trips, and Falls

Do you work up on platforms? Is your workplace cluttered? Are there slippery or wet floors?

◆ What management can do:

- Use guard rails when workers are up on sorting stations above the ground.
- Train workers to clean up spills immediately and use warning signs when floors are wet. Keep walkways clear of clutter.

■ Workers, to protect yourselves:

- Wear shoes with non-skid soles and good ankle support.
- Use a ladder or footstool to reach for objects.
- When using a ladder, put the ladder on a stable, dry surface. Make sure it is fully open and locked. Do not stand on the top two rungs of the ladder.
- Do not climb up waste piles or 'wade' into waste.



Clean up spills right away

Traffic

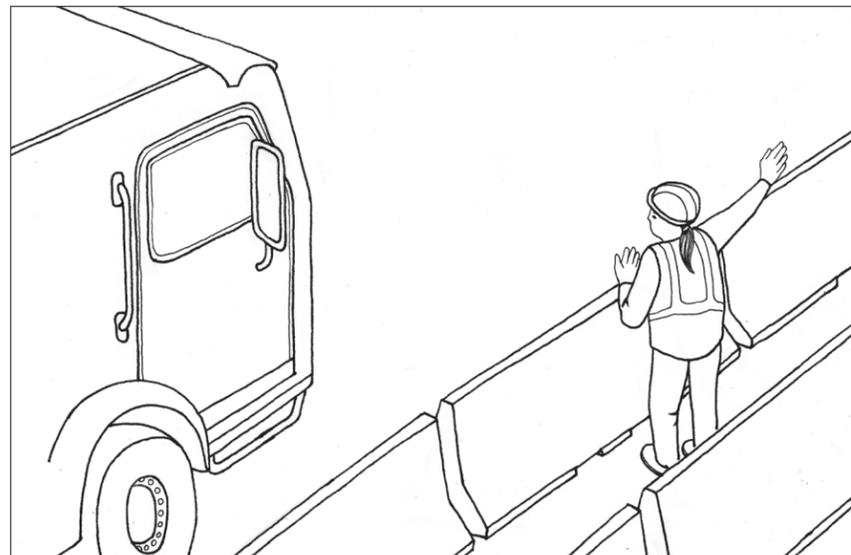
Are there dump trucks and forklifts in the same areas as workers and other pedestrians?

◆ What management can do:

- Keep moving vehicles away from areas where workers are. If possible, install physical barriers that protect workers from vehicles. Avoid using traffic cones, plastic barriers, hazard tape, chains or cables, as drivers can hit them and not notice.
- Have clearly marked walkways.
- Make sure drivers can see clearly (no blind corners, have proper mirrors and good lighting) and that vehicles have back-up alarms loud enough for workers on foot to hear.
- Assign specific people to supervise areas where vehicles and workers mix.

■ Workers, to protect yourselves:

- If you don't need to be in an area where there are vehicles, don't be there.
- Wear highly visible clothing, such as a reflective vest.
- Always make eye contact with the driver or operator before coming close to vehicles.



Install physical barriers to protect flaggers and other workers on foot

Moving parts in machinery

Does the conveyor belt and other machinery you work near have moving parts that could pinch you or where you could get caught?

◆ What management can do:

- Make sure machines in work areas have guards on them. A guard is a barrier that keeps workers' hands and clothing from getting close to the machine's moving parts.
- There should be emergency stops close to each worker (within 3 feet).

■ Workers, to protect yourselves:

- Know where the emergency stops are.
- Look for and report any moving parts on machines where your clothes or body may get caught.
- Don't wear loose clothes or jewelry.

Noise

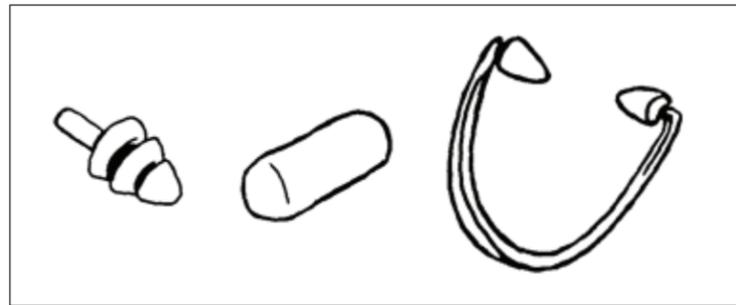
Is it so loud that you have to yell to be heard?

◆ What management can do:

- Install machines that make less noise. Keep all machines well-maintained.
- Offer several types and sizes of ear plugs so employees can use what fits and works best. Train workers on how to insert them.

Workers, to protect yourselves:

- Choose a size of ear plug that fits comfortably. Be sure hands are clean when you put them into your ear. Throw away disposable ear plugs after you wear them once.



Different types of ear plugs

Rodents

Do you see rodents, their nests or feces?

What management can do:

- Reduce the number of rats in the facility through a rodent control program.
- Do not allow material that has a lot of rat feces on the line.
- Provide workers who are cleaning up areas that have rodents with protective clothing: coveralls, gloves and goggles.
- Train workers on how to clean and disinfect these areas safely.

Workers, to protect yourselves:

- If you have to clean up dead rodents or nests, spray these with disinfectant until they are soaked. Wait 5 minutes before cleaning them up.
- Clean safely:
 - Wear gloves (latex, rubber or vinyl), coveralls and goggles.
 - Use a disinfectant.
 - Don't sweep as that gets feces into the air. Use water and a mop.



Taking Action to Improve Health and Safety

Once you identify the hazards in your facility, it is good to develop a plan for addressing them.

Tips for problem-solving at work:

1. Decide what you are trying to change. What improvement would you like to see?
2. What other help is available?
 - Talk to your co-workers to see if they have similar concerns and will help you take action.
 - Get advice or information from your union or health and safety coordinator.
 - Find out if there are laws that support the change you need.

3. What are the obstacles to implementing this solution?

- Cost and productivity are usually the biggest concerns for the boss. Is there a way to show that your solution will mean fewer injuries, or better, more efficient work by the workers? Will it somehow save money in the long run? Will it help create a positive image for the business?

4. Decide who you should talk to.

- Who is the best person to talk to? The supervisor? Another manager? A co-worker who is respected by the boss?
- Do not go alone. Taking other co-workers with you will show the boss that it is not just you. There will also be witnesses if the boss discriminates against you.

5. Practice what you want to say.

- Think about what you can say to make the case for safety. Think about how you can respectfully explain your concern and offer suggestions for addressing the concern.
- Practice saying some key points so you feel comfortable.
- Explain how the solution will benefit the employer. (Such as: fewer injuries, more productive and efficient workers, makes the work easier.)

6. Write down what happened.

- It's good to have some documentation: the date you spoke to the boss, who was there, what you asked for, and what the boss said.

7. Stay focused.

- If you don't succeed at first, rethink your approach and try again.
- You can also contact Cal/OSHA for help (see page 23).

Workers' Health and Safety Rights

By law, all workers have the right to a safe and healthful workplace. It doesn't matter what your immigration status is, you still have legal rights.

Cal/OSHA is the agency in charge of making sure that workplaces are safe for all workers. There are specific laws or regulations called "standards" which Cal/OSHA enforces.

It is the employer's responsibility to keep the workplace safe.

The law says that your employer must provide:

- **Information about any hazards** at the workplace, what is being done to protect you and how you can protect yourself.
- **Training** on job hazards and how to safely operate machines, tools and equipment. This training must be provided **in the language you and other workers understand.**



- **Protective clothing or equipment**, such as gloves or respirators, that help you do the job safely.
- **Written plans** that describe how workers will be protected from all possible job hazards.
- **A way for workers to report hazards without fear** of being fired or punished in any way. For example, a suggestion box or a health and safety committee.

You also have the right to:

- Discuss health and safety problems with your co-workers.
- Make suggestions that improve safety.
- Report any safety problems or injuries.
- Report hazards to Cal/OSHA. You can do this without giving your name.
- Refuse to work if the task would put your life in danger or cause serious injury.
- File a claim for workers' compensation if you get sick or injured because of your job.



Make suggestions and talk about health and safety problems

Right to Report a Problem to Cal/OSHA

You have a right to make a complaint to Cal/OSHA, the agency in charge of making sure that workplaces are safe for all workers. Cal/OSHA will investigate if you or other workers are in danger of work-related injury or death. They will not ask you about your immigration status.

It is illegal for your employer to fire or punish you for reporting or making a complaint about unsafe working conditions.

You can contact Cal/OSHA directly, or your union can assist you.

Cal/OSHA will respond more quickly if you provide the following information:

1. The name of your employer or company
2. Where the job is located
3. The problem – give as many details as you can
4. The number of workers and the languages spoken
5. The hours of work
6. Your name – Cal/OSHA will not tell your employer who called. You are not required to give your name if you do not want to.



When you call Cal/OSHA, tell them where you work

How can you report a problem to Cal/OSHA?

Call, fax a complaint and/or go in person to your local Cal/OSHA office. Cal/OSHA has staff who speaks Spanish.

Oakland

1515 Clay Street, Suite 1301
Oakland, CA 94612
Telephone: 510-622-2916
Fax: 510-622-2908

Fremont

39141 Civic Center Dr., Suite 310
Fremont, CA 94538
Telephone: 510-794-2521
Fax: 510-794-3889

Find a complaint form online:

English version:

<http://www.dir.ca.gov/dosh/WebComplaintForm.pdf>

Spanish version:

<http://www.dir.ca.gov/dosh/CompFormSpaGeneral.pdf>

What will Cal/OSHA do?

Cal/OSHA inspectors will come to a worksite if they believe the employer is breaking the law or workers may get hurt or killed.

They will ask the employer and workers questions to find out more about the hazards. You have the right to talk with the inspector in private. Get the inspector's phone number if you prefer to talk when you are not at work.

Tell the inspector about any problems and any changes that are needed to protect your health. You are the expert about conditions at your job. If the inspector doesn't speak your language, he or she will request an interpretation service.

If they find that the employer has violated a safety law (standard), Cal/OSHA will give a citation and fine to the employer. The employer must then fix the problem by a specific date.