



# Resolving Hazards

## Learning Outcomes

By the end of this unit the learner will be able to:

# Resolving Hazards

## The Three Methods

The Occupational Safety and Health Administration (or OSHA) is the governing body for workplace safety in the United States. They have identified three ways of resolving hazards; that is, modifying the task at hand so that it is no longer unsafe.

### Engineering Controls

This method of hazard resolution adds safety elements into the design of the hazard. This can include stairway railings, ventilation, guards on saws, or changing the substance used in a process so that it is no longer hazardous. These resolutions should be the first ones taken to resolve a hazard.

### Work Practices

This method changes the way workers perform a task to make it safer. This may include sign in-sign-out procedures, or it may involve rotating employees on or off of shift work. These methods should be looked at after engineering controls are applied.

### Personal Protective Equipment

This should be the last avenue of hazard resolution. It requires the employee to act in a particular way to reduce the hazard. Some examples of this include requiring the employee to wear a respirator, use a safety harness, or wear gloves.

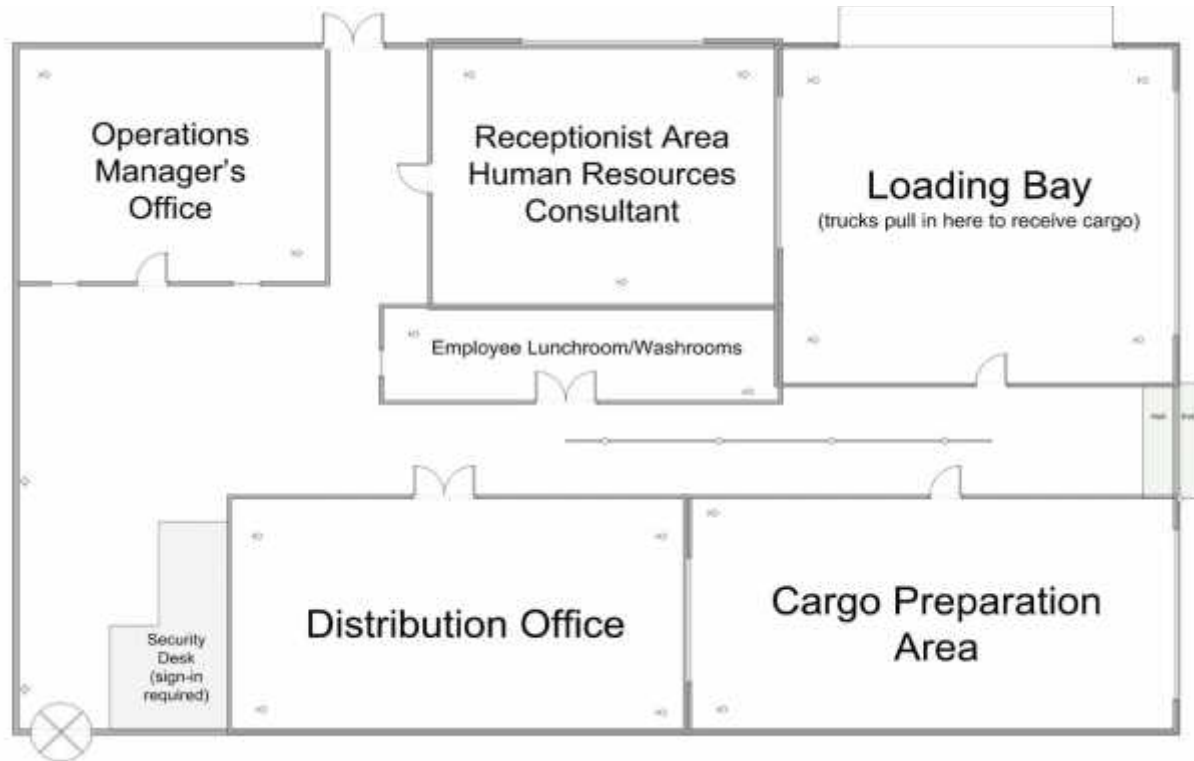
Note that these resolutions can be (and often are) combined for maximum safety.

## Hazard Resolution for the Acme Widget Company

### Case Study

#### Floor Plan

The Acme Widget Company manufactures and distributes widgets. It occupies the main floor of a warehouse. The floor plan looks like this:



### Staffing Hours

The staff and their hours are outlined below.

Staff Member	Responsibility	# of Staff	Hours Worked
Security guards	Patrol building and grounds every half hour	2	7 am to 7 pm (Sun-Wed)
		2	7 am to 7 pm (Thu-Sat)
	Monitor security desk and cameras	2	7 pm to 7 am (Sun-Wed)
		2	7 pm to 7 am (Thu-Sat)
		1	Backup; varies
Operations manager	Oversee all staff	1	8 am to 4 pm
Distribution clerks	Check invoices and prepare cargo	2	7 am to 7 pm (Sun-Wed)
		1	7 am to 7 pm (Thu-Sat)
	Transport cargo to loading bay	2	7 pm to 7 am (Sun-Wed)

		1	7 pm to 7 am (Thu-Sat)
		1	Backup; varies
HR consultant	Manage all human resource issues, including personal counseling, hiring, firing	1	8 am to 4 pm, although can be called in off-hours
Receptionist	Respond to incoming phone calls, e-mails, faxes	3	8 am to 4 pm
		2	4 pm to midnight
	Prepare invoices and send to distribution clerks	1	Midnight to 6 a.m.
Warehouse Workers	Let trucks into loading bay, place cargo onto trucks, and ensure paperwork is signed and cash received	4	8 am to 4 pm
		4	4 pm to midnight
		4	Midnight to 6 a.m.

### Safety Incidents

Here is a log of safety incidents that have occurred in the past year.

Log of Safety Incidents		
Incident	Date and Time	Action Taken
Truck driver backed into boxes in warehouse; boxes fell onto employee	January 6, 20xx (Saturday), 7:19 p.m.	Employee taken to hospital; off work for 17 days
Tape dispenser fell off top shelf of cargo preparation area; hit employee on head	February 10, 20xx, around 10 p.m.	None
Distribution clerk pulled back muscle moving box onto truck	April 10, 20xx, 7:12 a.m.	Clerk off work permanently Purchased forklift to assist with moving boxes

## Test Your Knowledge

### Task

Resolve the identified hazards at the Acme Widget Company.

Hazard	Engineering Controls	Work Practices	PPE

**Further Reading:**