Conducting a Job Hazard Assessment

Environmental, Health and Safety

275-3241
EH&S Programs:

• Fire Safety
• Blood Borne Pathogens
• Hazard Communication
• Personal Protective Equipment
• Emergency Preparedness
• General Safety
• Radiation Safety
• Laser Safety
• OR Safety

• Dental Safety
• Disinfectant Safety
• Power Industrial Trucks
• Respiratory Safety
• Hearing Conservation
• Lock Out/Tag Out
• Confined Space
Overview

- What is a hazard assessment?
- When is one required?
- How do I conduct one?
Definition

A hazard assessment is an evaluation of a work place, or work situation, as to the potential for hazards that an employee may encounter while performing the job.
Requirements

Employers are required (by OSHA) to certify in writing that they have assessed the workplace to determine if hazards are present or likely that would require personal protective equipment (PPE) and/or medical monitoring, or other requirements such as fit testing for respirator use, and vaccines. You may use this presentation as a “tool for completing the Job Hazard Assessment form located on the EH&S website www.safety.rochester.edu.
Supervisors

Each department Supervisor is required to perform a job hazard assessment and oversee that personal protective equipment is appropriate for the hazard and is being used accordingly.
Where do you begin?

It may be difficult to begin assessing every location, job title, or job task. The most logical place to begin is to review your accident and illness reports.

– Is there a work area that seems to have more accidents and injuries than others?
– Is there a type of injury that seems to occur more frequently than others?
Where do you begin?

If injury and illness reports do not point you towards a place to begin, consider beginning with:

– Close calls or near misses
– New tasks or positions
– Tasks that have changed
– Non-routine jobs
– Routine jobs
Work Area Assessment

After you have chosen a place to start, perform a walk-through of the work area, looking for hazards as indicated in this training.

Tip: Involve employees in this process to gain valuable input!
Identify the Hazards

As you walk through the area and discuss work tasks with employees, look for the following hazards.

– If you are unsure whether something should be included in your hazard assessment, contact EHS for assistance or try using the reference material suggested on some of the slides.
Falling Objects

Are there objects which may fall from above onto employees?

– Employees working overhead?

– Tools or materials handled above your head?
Chemical Hazards

Chemical use requires safe procedures as well as protective equipment. If your employees use chemicals (examples include cleaners, drugs, paint, gasoline, etc) as part of their job duties, they need to know the hazards associated with those chemicals.
Harmful Dusts/Mists/Fumes/Particulates

Are employees exposed to chemicals or harmful dusts/mists/fumes? Examples:

- Any chemical, particulate, or aerosolization of microorganisms which poses a health hazard
- Asbestos
- Welding fumes
- Solder fumes
- TB

Reference for chemicals:
Obtain a Material Safety Data Sheet on the product in question from the supplier and review the information provided for health hazards and suggested controls.
Potential Exposure to Blood or Body Fluids

Are there sources of blood and/or other potentially infectious materials?

- Medical procedures
- Accidents
- Research samples
- Medical waste

All employees with reasonably anticipated exposure to blood are covered by OSHA’s Bloodborne Pathogens Standard.
Biohazards

In addition to human blood/ body fluids/ tissues, other biohazards may be worked with in your location. These agents include research microbes, recombinant DNA, and select agents. The possession, use, and transfer of these materials may be subject to additional University and federal requirements.
Emergency Preparedness & Fire Safety

Knowing what to do in an emergency, whether it be a fire, flood, power outage, or other situations, is necessary in every work setting at the University. A plan is needed so that if an emergency situation occurs, you will know what to do before it happens.

CALL 911
Energy Sources

Are there energy sources which could be harmful if accidental release or startup occurs?

• Electrical
• Pneumatic
• Hydraulic
• Thermal
• Mechanical
• Gravity
Sharp Objects

Are there sharp objects which could cut or pierce the body?

- Glass
- Knife blades
- Sheet metal
- Nail guns
- Needles
- Splinters (wood)
- Burrs (metal)
Temperature Extremes

Are there hot or cold surfaces which could burn or freeze employees?

- Welded parts
- Cryogenic materials
- Autoclaves
- Ovens/stoves
- Molten metals
Light Radiation

Is there light radiation which could be harmful to the skin or eyes?

• Welding and cutting
• Lasers
Flying Debris

Will employee be operating, or be exposed to, tools/equipment which may generate flying debris?

- Hammering
- Sawing
- Chipping
- Grinding
- Drilling
- Buffing
Excessive Noise

Will employee be operating, or be exposed to, tools/equipment which may generate excessive noise?

- Jack-hammering
- Woodworking machinery
- Metalworking machinery
- Operating heavy equipment
Workplace Layout

Does the layout of the workplace create a potential hazard?

- Fall hazards exceeding 4 feet.
- Low clearances
- Confined spaces
Confined Space

Areas classified as a permit required confined space i.e; has inadequate size and configuration for employee entry, has limited means of access and/or egress, is not designated for continuous employee occupancy, contains or has the potential to contain a hazardous atmosphere.
Powered Industrial Trucks (PIT)

PITs are material moving machines such as fork lifts and motorized pallet jacks. If your employees use these machines, additional training may be required.
Ergonomics is the study of fitting the job task to the human body. Areas of interest are computer workstation design, back and lifting safety, and repetitive impact tasks. Injuries and illnesses from poor work designs include pain, carpal tunnel, strained muscles, back injuries, etc.
Step 2

Once the hazard has been identified, you must implement an effective control to eliminate the hazard, reduce the hazard to an acceptable manner, or protect the employee.
Step 3

Evaluate the level of risk for each hazard to help determine what type of control should be implemented to reduce exposure.

minimal exposure  Serious exposure
Step 4

Select an appropriate solution to each hazard.

– Always consider eliminating the hazard (if possible) first.
– If elimination is not possible, consider reducing the hazard to an acceptable level.
– If an acceptable level cannot be reached, select and provide appropriate personal protective equipment for the employee.
Engineering Controls

Engineering controls eliminate exposure to the hazard. They are:

– relatively permanent,
– can be costly, and
– can be time-consuming.

Examples include...

Engineering controls are things that you do to fix the hazard.
Isolation

Isolate the employee from the hazard.

- Control rooms
- Machine guarding
- Protective barriers and shields
- Guardrails
- Clearance distances
Design

Is there new (or existing) technology on the market for the product which, by it’s design, protects the person using it?
Process Change

Can a non-hazardous process be substituted for a hazardous process?

Spray Painting

Dipping or Brushing
Work Area Layout

Can a hazardous work area layout be improved?

- Hot Work
- Electrical
- Chemical Storage
- Pipe Storage
- Stacked Boxes
- Tool Room
- Main Work Area
Work Area Layout

Chemical storage area was moved away from hot work and electrical hazards.
Substitution

Can a non-hazardous product be substituted for a hazardous product?

– Pesticides
– Solder
– Cleaning agents
– Solvents
Ventilation

Will ventilation improve the air quality to an acceptable (i.e. safe) level?
Administrative Controls

Administrative controls reduce employee exposure to a hazard.

- They do not eliminate the hazard, but they provide an acceptable way to work around the hazard.

Examples include...
Reduction

Can you reduce the frequency of performing the hazardous task?
Can employees be rotated to reduce exposure time?
Training

Can employees be trained to recognize hazards and employ safe work practices?
Protect the Employee

If the hazard cannot be eliminated or reduced to an acceptable level, the employee must be protected from exposure. This protection requires that the employee wear and/or use appropriate personal protective equipment.
Protect the Employee

- Hard hats
- Eye protection
- Face protection
- Respiratory protection
- Hearing protection

- Body wear
- Sleeves
- Gloves
- Protective footwear
Summary

- Identify hazards in the workplace that could result in injury or illness.
- Evaluate the level of risk to help determine what controls to implement.
- Select an appropriate solution to control the hazard and/or protect the employee.
- Complete the Job Hazard Assessment form located at [www.safety.rochester.edu](http://www.safety.rochester.edu)
Information

For more information regarding hazards in the workplace, contact EHS at 275-3241, or visit our website at

www.safety.rochester.edu

Thank you!