

## Keep a Clean Machine Shop

A poorly maintained work environment in a machine shop conceals all kinds of serious hazards. This may result in safety incidents ranging from trips and falls to chemical exposures, electrical hazards, and even explosions.

### WHAT'S AT STAKE?

There are many housekeeping hazards in machine shops. Some of these hazards are environmental, such as accumulated grinding dust which can cause dust explosions, shavings from a drill press which may cause cuts or punctures, or poor lighting and trip hazards.

Others housekeeping hazards are chemical, for instance, rags used for solvents that are not properly disposed of may spontaneously combust. The risk of a dust explosion increases in winter when low humidity levels make dust easy to disperse and ignite.

### What Can Happen?

Two workers were sorting materials on an output conveyor at the electronics recycling factory where they worked. Nearby, a ring mill pulverizing machine generated a great deal of dust. No established dust collection or fire suppression system existed, so the dust collected to unsafe levels.

But nobody informed a supervisor. It was winter and the warehouse was closed up and poorly ventilated. The dust exploded and the ring mill caught fire, causing serious burn injuries to both workers. The workers spent time in the hospital, and it was months before either of them could return to work.

### What Should You Do?

To ensure your workplace is kept in top shape, and to prevent hazards, practice proper housekeeping:

1. Don't leave remnants of packing material on the floor.
2. Don't stack items so high that they block the fire sprinkler heads.

3. Don't pile materials too close to sources of heat or electricity.
4. Don't place items so that they stick out into walkways.
5. Ensure your workshop is properly ventilated. Notify your supervisor if you have concerns about ventilation.
6. Dust from grinding and other debris should be removed daily. If an accumulation of dust occurs in an unreachable area, notify your supervisor.
7. Dispose of oily or solvent-covered rags in a fireproof, metal container.
8. Promptly clean up any spills that might create slipping hazards.

### FINAL WORD

*In the course of everyday duties and time constraints, it is easy to brush off the importance of housekeeping in a machine shop. But overlooking basic housekeeping tasks can bring serious consequences. To stay safe, practice routine housekeeping tasks every day, and notify your supervisor if something appears out of order or dangerous.*

**QUIZ**

1. Dust hazards are most dangerous when the weather is hot.
  - True
  - False
  
2. Tripping hazards are usually caused by workers that just don't pay attention.
  - True
  - False
  
3. When stacking, always place the heaviest item at the bottom of the stack.
  - True
  - False
  
4. A housekeeping hazard can be:
  - a. A rag covered in oil solvent.
  - b. An accumulation of dust.
  - c. A blocked electrical outlet.
  - d. All of the above.

## **BEFORE THE TALK - TIPS**

1. Walk through the work area. Indicate your warehouse spark detection system if one exists.
2. Clearly illustrate how the spark detection system will alert your workers if it detects sparks.
3. What should they do if a spark is detected?
4. Bring a list of daily housekeeping duties that all workers should be performing intermittently throughout the workday.
5. Review your procedures for disposing of collected dusts and solvent-covered rags.
6. Discuss how workers might check ensure your ventilation systems are working properly.
7. Have your workers had any experiences with sloppy housekeeping routines that evolved into hazards? Ask them to share their stories.

## **AFTER THE TALK- *CHECKLIST***

#### **PROVIDED FOLLOW-UP TO WORKERS THAT DID**

## POORLY ON THE QUIZ

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

## OBSERVED WORKERS

TASK(S): \_\_\_\_\_

DATE:

## REFRESHER TRAINING

TOPIC(S): \_\_\_\_\_

DATE:

**OTHER (DESCRIBE):**

MEETING DATE: \_\_\_\_\_

LOCATION: \_\_\_\_\_

## NOTES

## ANSWERS:

1. False	3. True
2. True	4. d

## ATTENDANCE

**INSTRUCTOR:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**SAFETY TALK:** \_\_\_\_\_