



# **Safety and Health Assessment**

**Illinois Manufacturing Extension Center**

**[www.imec.org](http://www.imec.org)**

**NIGHT TIME SANITATION AND MAINTENANCE, THIRD SHIFT MAINTENANCE AND CLEAN-UP,  
INCLUDING LOCKOUT/TAGOUT AND CONFINED SPACE HAZARDS**

Occupational safety and health observations made during this assessment are informal observations based on regulatory training, industry standards and safe and healthful work practices. This assessment cannot guarantee any facility would be in complete compliance with all regulatory standards at all times. Many workplace accidents are attributed to behavioral-based factors. Please note that standards set by the United States Department of Labor's Occupational Safety and Health Administration (OSHA) are intended to be minimum standards. Many of these standards were adopted from trade organizations years ago. Under OSHA's General Duty clause, employers are required to protect employees from all recognized hazards that are likely to cause death or serious injury.

**Top Cited Manufacturing General Duty Clause Violations (2004 Region V - Illinois)**

- 1) No magnetic motor restarts for saws (ANSI B11.10)
- 2) Unprotected foot pedal for shears and other equipment (ANSI B11 series)
- 3) Not wearing seat belts for forklifts (ANSI B56.1)
- 4) Not doing hoist and underhung crane inspections (ANSI B300.11/B30.16)
- 5) Incompatible storage of acids and cyanides
- 6) Standing on pallet on forklift (ANSI B56.1)
- 7) Exceeding hoist capacity (ANSI B30.16)
- 8) Forklift platform with no capacity, Back of platform not screened, or weight of platform not marked (ANSI B56.1)
- 9) Homemade lifting devices not proof tested or have a designed capacity (ANSI B30.20)
- 10) No emergency stops for conveyors

**Most Frequently Cited Violations (2007 Region V – Illinois)**

- |     |           |  |
|-----|-----------|--|
| 1)  | 1910.212  | No machine guarding, rotating parts      |
| 2)  | 1910.1200 | No hazcom program                        |
| 3)  | 1910.212  | No general machine guarding              |
| 4)  | 1910.147  | No lockout/tagout program                |
| 5)  | 1910.1200 | No hazcom training                       |
| 6)  | 1910.147  | No lockout/tagout audits                 |
| 7)  | 1910.147  | No lockout/tagout procedures             |
| 8)  | 1910.132  | No PPE hazard assessment                 |
| 9)  | 1910.147  | No lockout/tagout training               |
| 10) | 1910.23   | No walking and working surfaces guarding |

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**Date, Company, and Contact Name**

**Assessment Team**

**Employment**

*This information is needed for data compilation to meet OSHA reporting requirements for this grant program. Ask the company what shifts they are running (production and/or cleaning/maintenance). First, fill in the shift hours (e.g., 7 a.m. – 3 p.m.) followed by the number of salaried, hourly, total, and contract employees for each shift. Remember that there may be off-shifts for cleaning/maintenance.*

<b>Shift Hours</b>	<b>Salaried</b>	<b>Hourly</b>	<b>Total Employees</b>	<b>Contract Workers</b>

**Opening or Closing Conference:**

*Ask the client if they would prefer to take the plant tour first or sit down and discuss the assessment and documentation before the shop floor assessment.*

*During the conference, explain to the client that:*

- You are unlikely to be inspected by OSHA unless:
1. An employee makes a complaint
  2. An employee is killed or seriously injured
  3. Facility is on an OSHA target inspection list based on prior injury and illness logs or targeted industry

**Do you have an active safety committee or team?**

Yes or No

**Do you offer Restricted/Light Duty to injured employees?**

Yes or No

**Do you have a particular safety or health concern?**

## **Hazard Communication**

Also known as the right to know law, Hazard Communications is still one of the most frequently cited OSHA standards. Employees must understand the chemicals they work with, how to protect themselves from the hazards and what actions to take in an emergency situation. All employees should review material safety data sheets (MSDS) in their work areas and understand company labeling programs. Employees should have the awareness level to obtain assistance and quickly locate the appropriate MSDS in an emergency and obtain pertinent first aid information for medical response.

- ◆ Are MSDS accessible to employees and organized for quick reference?  
Yes or No
- ◆ How are MSDS organized and maintained?
  
- ◆ Are containers properly labeled?  
Yes or No
- ◆ Are appropriate secondary containers being utilized?  
Yes or No
- ◆ Do employees understand the concepts of chemical incompatibility?
  
- ◆ Comments/additional information

### **Personal Protective Equipment (PPE)**

PPE is a last resort used to protect employees only when hazards cannot be eliminated through engineering, safeguarding and/or work practices. Employers must document in writing when, where and what PPE is required and train employees on those requirements and proper use and maintenance of that equipment.

- ◆ Are employees wearing appropriate PPE? If no, is it available to them?  
Yes or No
- ◆ Is there signage indicating appropriate PPE? Are rules being enforced?  
Yes or No
- ◆ Have you documented job hazard assessments with specific PPE requirements?  
Yes or No
- ◆ Is PPE properly maintained?  
Yes or No
- ◆ Comments/additional information

### **Lockout/Tagout**

The control of hazardous energy should be a top training priority for manufacturers. All plant employees should receive awareness level training. Maintenance staff and others performing lockout/tagout should receive more in-depth training, including required, company-specific written procedures for equipment with dual sources of energy.

- ◆ Is there a written program?  
Yes or No
- ◆ Have employees been trained on the program in the last year?  
Yes or No
- ◆ Are the locks and equipment available?  
Yes or No
- ◆ Are employees using the equipment consistently?  
Yes or No
- ◆ Are specific procedures documented for equipment with multiple sources?  
Yes or No
- ◆ Is an annual audit of authorized persons documented?  
Yes or No
- ◆ Are there magnetic motor restarts for saws (ANSI B11.10)?  
Yes or No
- ◆ Comments/additional information

## **Electrical**

Electricity is one of the most common causes of fire in homes and workplaces.

Electrical accidents appear to be caused by a combination of three factors:

1. Unsafe equipment and/or installation;
2. Workplaces made unsafe by the environment; and
3. Unsafe work practices.

There are various ways of protecting people from the hazards caused by electricity. These include insulation, guarding, grounding, electrical protective devices, and safe work practices.

- ◆ Has the company addressed NFPA 70E (arc flash) requirements?  
Yes or No
- ◆ Are all electrical systems enclosed, such as all wiring in conduit, breaker panels closed?  
Yes or No
- ◆ Are all circuits and disconnects labeled?  
Yes or No
- ◆ Do you perform any electrical over 600 volts? If yes, who and what is/are their qualification(s)?  
Yes or No
- ◆ Is temporary wiring used correctly?  
Yes or No
- ◆ Is GFCI used where applicable?  
Yes or No
- ◆ Are explosion-proof systems in hazardous environments?  
Yes or No
- ◆ Comments/additional information

### **Machine Guarding**

Machine guarding is a topic that should be addressed annually in company-wide training. Activities such as machine safety and workstation design should be viewed as continuous improvement projects. Schedule reviews with cross functional teams and outside experts as necessary.

- ◆ Have you assessed each machine or process to see if it is effectively guarded?  
Yes or No
- ◆ During the walkthrough, do you see any missing guards or unguarded operations?  
Yes or No
- ◆ Are guarding systems being maintained and inspected (interlocks, etc)?  
Yes or No
- ◆ Are you doing P.M.s on Mechanical Presses, inspecting brakes and clutches?  
Yes or No
- ◆ Are there unprotected foot pedals for shears and other equipment (ANSI B11 series)?  
Yes or No
- ◆ Are there emergency stops for machines, equipment, conveyors?  
Yes or No
- ◆ Comments/additional information

### **Sanitation and Industrial Hygiene**

Industrial hygiene encompasses many areas, including several previously stated. Additional areas of consideration include overall hygiene practices in industrial facilities and monitoring activities. During hazard communications training and at other times as appropriate, remind employees of the importance of proper hand washing and care of PPE to minimize exposure to infectious illnesses and to chemicals through ingestion or absorption. Employees frequently take breaks where they eat and smoke without taking the time to wash their hands. Industrial employees become complacent and frequently do not consider that chemicals as common as WD-40 can have adverse health affects.

- ◆ Are break areas designated?  
Yes or No
- ◆ Are break areas cleaned daily?  
Yes or No
- ◆ Are adequate restroom facilities available and are they cleaned daily?  
Yes or No
- ◆ Are basic employee conduct policies implemented, such as hand washing, smoking, spitting tobacco?  
Yes or No
- ◆ Are emergency exits and aisle ways maintained?  
Yes or No
- ◆ Is there a housekeeping program in place? (Is it effective, have you observed trip hazards?)  
Yes or No
- ◆ Is the housekeeping program managed? Who is responsible? When? How Often? How?  
Yes or No
- ◆ Comments/additional information

### **Confined Spaces**

The purpose of this program is to ensure that safe work methods are utilized prior to and during all work activities performed on confined spaces. This program is designed to prevent personal injuries and illnesses that may be prevalent in confined spaces.

- ◆ Does the facility have confined spaces  
Yes or No
- ◆ If yes, are the confined spaces designated with signage?  
Yes or No
- ◆ Have procedures been developed for each of the confined spaces?  
Yes or No
- ◆ Have employees been trained on the specific procedures?  
Yes or No
- ◆ Are “authorized entrants” established?  
Yes or No
- ◆ Is annual refresher training provided?  
Yes or No
- ◆ Are proper emergency systems/equipment in place (gas meter, harness, tripod, etc.)?  
Yes or No
- ◆ Have staff been trained on the equipment in the environment?  
Yes or No
- ◆ Comments/additional information

## **Comments and Recommendations**

## **Reference Materials**

Hazard Communication, Refer to 29 CFR 1910.1200  
<http://www.osha.gov/SLTC/hazardcommunications/index.html>

Personal Protective Equipment, Refer to 29 CFR 1910, Subpart I  
<http://www.osha.gov/SLTC/personalprotectiveequipment/index.html>

Lockout/Tagout, Refer to 29 CFR 1910.147  
<http://www.osha.gov/SLTC/controlhazardousenergy/index.html>

Electrical, Refer to 29 CFR 1910 Subpart S  
<http://www.osha.gov/SLTC/electrical/index.html>

Machine Guarding, Refer to 29 CFR 1910, Subpart O  
<http://www.osha.gov/SLTC/machineguarding/index.html>

OSHA Assistance for the Cleaning Industry  
<http://www.osha.gov/dcsp/products/topics/cleaningindustry/index.html>

Confined Space, Refer to 29 CFR 1910.146  
<http://www.osha.gov/SLTC/confinedspaces/index.html>