

# Safety Basics

January 15, 2010

Scott Cole, Lake County Dept. of Utilities  
Bob Siktberg, Lincoln Electric

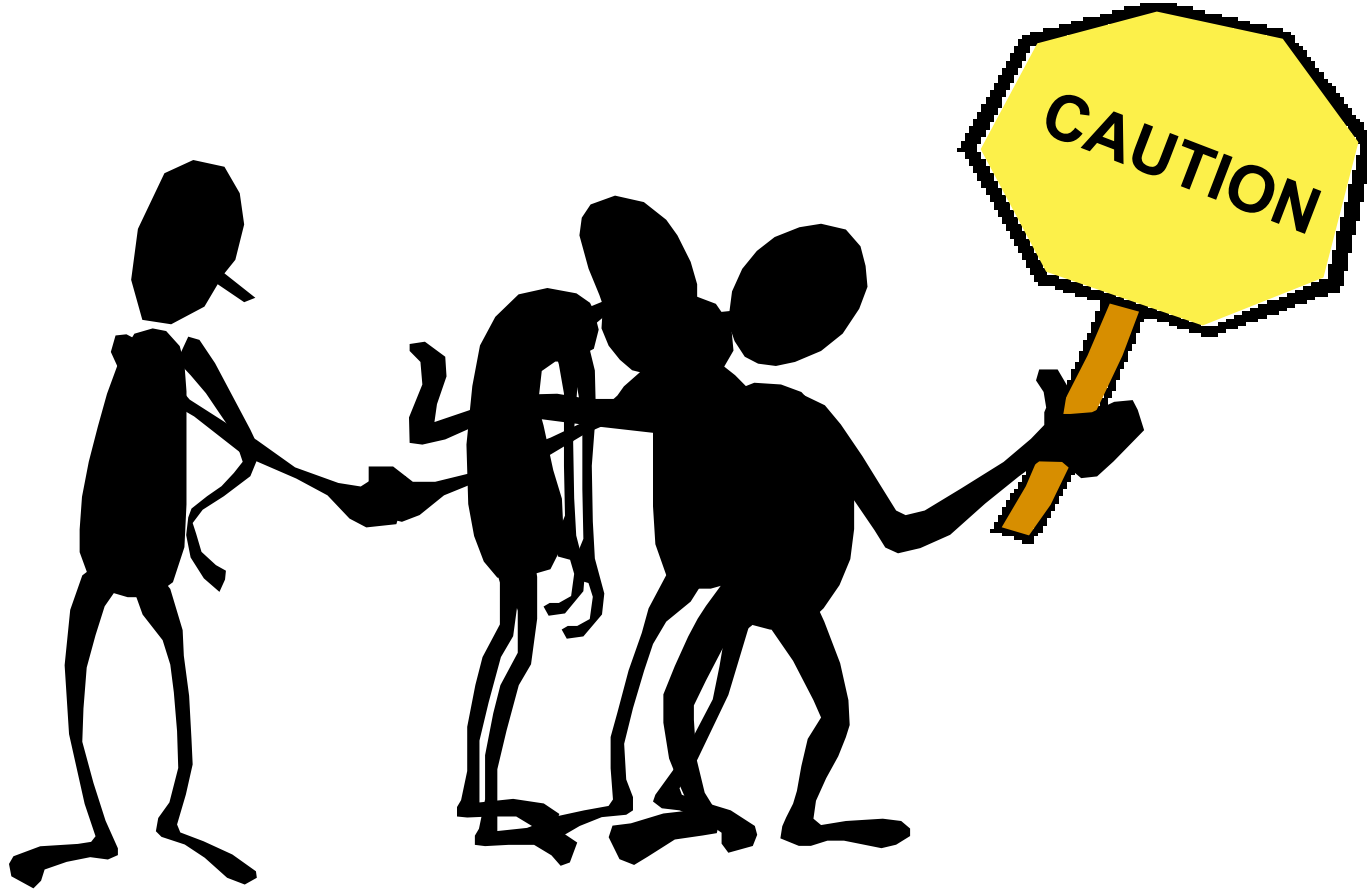


# Our Story Today

# Our Story Today



# Our Story Today



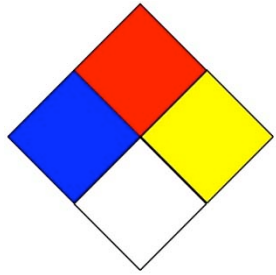
**SAFETY**

**FOR**

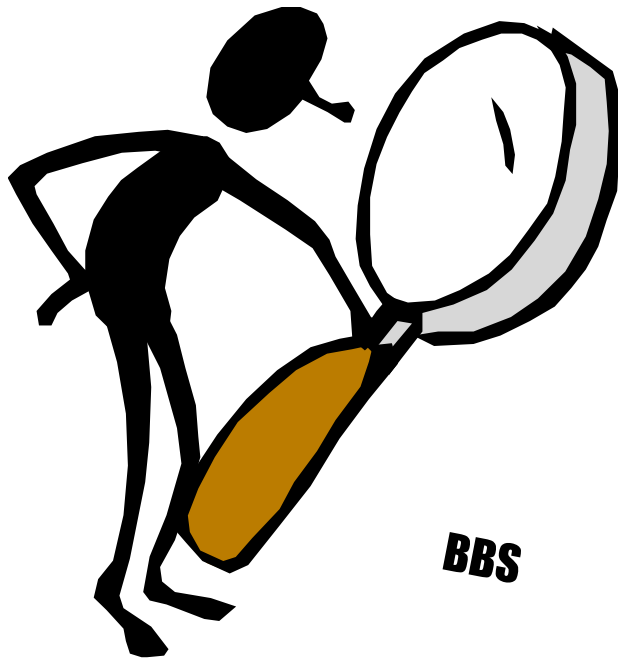
**DUMMIES**



***A Reference  
for the  
Rest of Us!***



# Where to Start?



**Inspections**

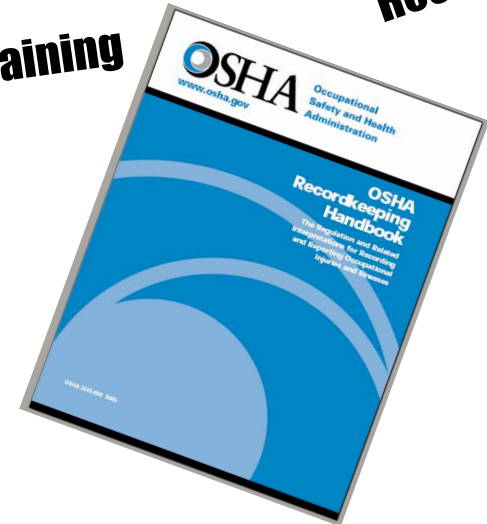


**Injuries**

**BWC**

**Records**

**Training**



**BBS**

**Hazards**

**Written Programs**



**PPE**



# [www.osha.gov](http://www.osha.gov)

Occupational Safety and Health Administration - OSHA HOME PAGE - Microsoft Internet Explorer

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 **UNITED STATES DEPARTMENT OF LABOR**  
OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

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**OSHA welcomes**  
  
**David Michaels,**  
Ph.D., M.P.H.  
Assistant Secretary of Labor for  
Occupational Safety and Health

[David Michaels' Biography](#)

[Latino Summit](#) [David Michaels](#) [BP Fined](#) [Combustible Dust](#) [H1N1 & Workers](#)

**Worker Fatalities**  
12/20/2009 NY – Worker was found in vehicle with engine running; carbon monoxide poisoning.

**5,071 workers died on the job in 2008**  
"With every one of these fatalities, the lives of a worker's family members were shattered and forever changed. We can't forget that fact."  
- Hilda Solis, Secretary of Labor  
[Weekly Fatality Reports](#) - through 12/25/09

**OSHA News**

- Public hearings on hazard communication rule scheduled
- OSHA issues CES Environmental Services Inc. nearly \$1.5 million in penalties for deadly explosion
- Assistant Secretary of Labor for OSHA Dr. David Michaels' remarks at Making Green Jobs Safe Workshop
- DOL Regulations
- OSHA's Fall 2009 Regulatory Priorities
- US Department of Labor unveils new 'Open Government' efforts
- Labor Secretary rolls out regulatory agenda
- Workplace H1N1 influenza precaution and protection information for workers and employers

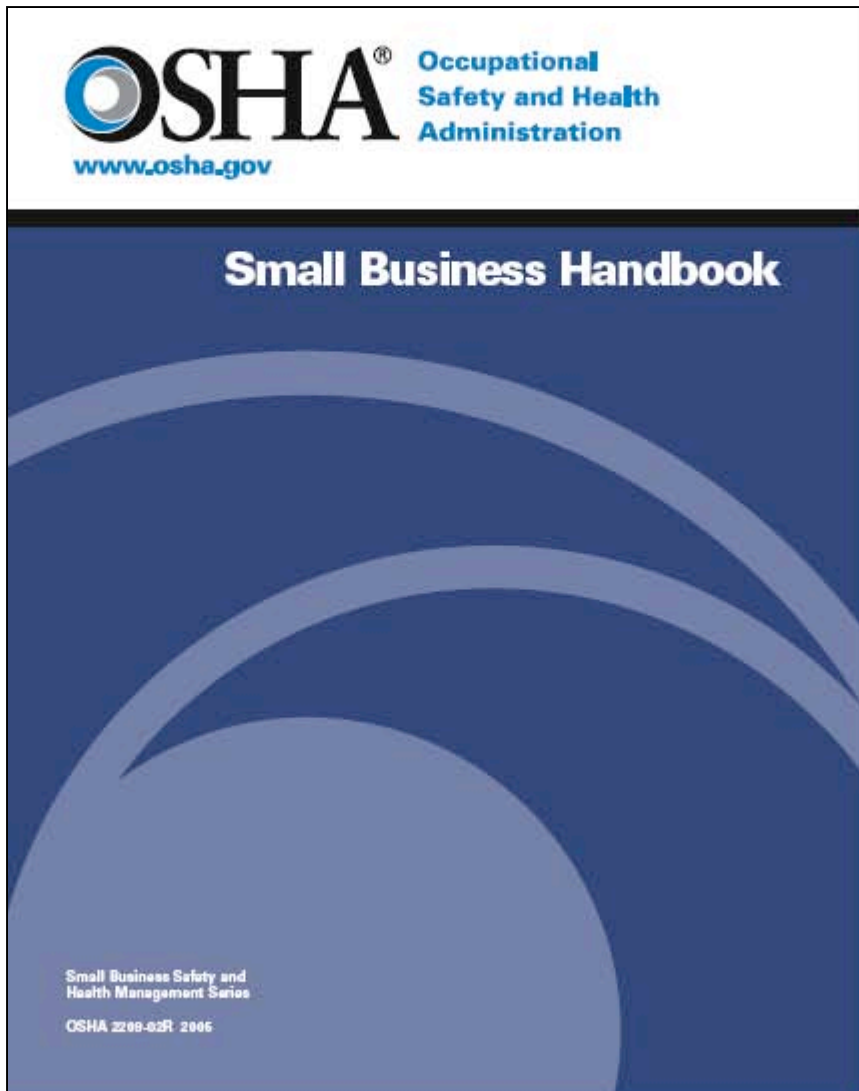
[More News...](#)

**Job Opportunities with OSHA**  


**Audiences:** **How do I?**

e 6 of 23 Default Design English (U.S.)

# OSHA Small Business Handbook



- 56 pages
- Discusses safety management practices
- Includes many checklists

[www.osha.gov/Publications/smallbusiness/small-business.pdf](http://www.osha.gov/Publications/smallbusiness/small-business.pdf)



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**SAFETY COUNCIL**  
Working Towards A Safer Workplace



# OSHA Small Business Handbook

## A Four-point Workplace Program

- 1. Management Commitment and Employee Involvement.**
- 2. Worksite Analysis.**
- 3. Hazard Prevention and Control.**
- 4. Training for Employees, Supervisors and Managers.**



# Management Commitment and Employee Involvement



- Be visible
- Communicate your vision
- Provide resources
- Enforce rules
- Follow the rules yourself
- Periodically review the program
- Involve employees in program design
- Support safety committees
- Implement suggestion systems



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# Worksite Analysis



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# Worksite Analysis



- Seek professional advice, where needed
- Learn about the topics that apply to your business
- Involve the employees in the analysis
- Analyze injury data
- Thoroughly investigate all incidents



# Hazard Prevention and Control



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# Hazard Prevention and Control



- Set up policies and procedures
- Enforce the rules
- Provide PPE and other safety equipment
- Maintain machinery, facilities and other equipment
- Plan for emergencies

# Training for Employees, Supervisors and Managers



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# Training for Employees, Supervisors and Managers



- Make sure all employees know about:
  - the equipment they are using
  - the hazards in the use of that equipment
  - how to protect themselves from those hazards



# OSHA Top Ten Cited Standards

1. Scaffolding, general requirements, construction
2. Fall Protection, construction
3. Hazard Communication standard, general industry
4. Respiratory Protection, general industry
5. Control of Hazardous Energy (lockout/tagout), general industry
6. Ladders, construction
7. Powered Industrial Trucks, general industry
8. Electrical, wiring methods, components and equipment, general industry
9. Electrical Systems Design, general requirements, general industry
10. Fall Protection, training requirements

[www.osha.gov/pls/imis/citedstandard.html](http://www.osha.gov/pls/imis/citedstandard.html)



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# OSHA Top Ten, SIC= 35XX

## *Industrial And Commercial Machinery And Computer Equipment*

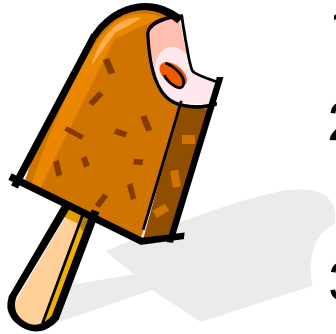
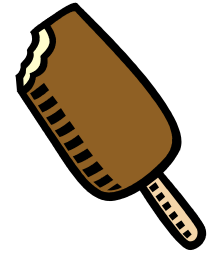
1. The control of hazardous energy (lockout/tagout).
2. Hazard Communication.
3. Electrical Safety, general requirements.
4. Powered Industrial Trucks.
5. Machine Guarding, general requirements
6. Wiring Methods, components, and equipment for general use.
7. Slings.
8. Guarding, floor and wall openings and holes.
9. Guarding, Abrasive wheel machinery.
10. Personal Protective Equipment, General requirements.
11. Mechanical Power Presses.

[www.osha.gov/pls/imis/citedstandard.html](http://www.osha.gov/pls/imis/citedstandard.html)

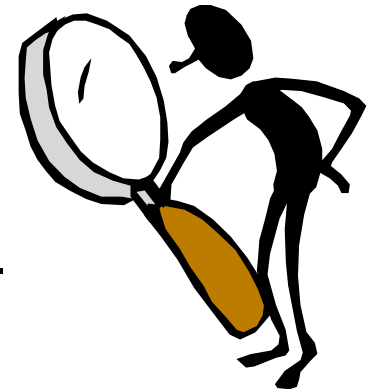


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# SIC 2024: Ice Cream and Frozen Desserts



1. Occupational noise exposure.
2. Means of Egress, Design and construction requirements for exit routes.
3. Guarding, Mechanical power-transmission apparatus.
4. Respiratory Protection.
5. Electrical, General requirements.
6. OSHA Recordkeeping, Forms.
7. OSHA Recordkeeping Annual summary.
8. Permit-required confined spaces
9. The control of hazardous energy (lockout/tagout).
10. Wiring methods, components, and equipment for general use.



[www.ohiobwc.com/](http://www.ohiobwc.com/)

# Employer Safety Publications



- DS22 Construction Safety Manual
- DS24 Safety Manual for Excavation
- DS25 Safety Manual for Public Schools
- DS27 Machine Shops Manual
- DS29 Safety Handbook for Plastics
- DS31 Safety Handbook for Masonry
- DS32 Safety Handbook for Metal Stamping and Sheet Metal



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# PERRP's Most Common Violations – CY 2008

1	29 CFR 1910.303 Electrical Equipment, General Requirements	2,936
2	29 CFR 1910.305 Electrical Wiring Methods	1,513
3	29 CFR 1910.304 Electrical Wiring Design & Protection	805
4	29 CFR 1910.22 Walking/Working Surfaces, General Requirements	551
5	29 CFR 1910.215 Abrasive Wheel Machinery	528
6	29 CFR 1910.37 Maintenance, Safeguards, & Operational Features for Exit Routes, Emergency & Fire Plans	502
7	29 CFR 1910.1200 Hazard Communication – Toxic & Hazardous Substances	440
8	29 CFR 1910.157 Fire Protection – Portable Fire Extinguishers	348
9	29 CFR 1910.212 Machine Guarding, General Requirements All Machines	301
10	29 CFR 1910.151 Medical Services & First Aid	238

# Control of Hazardous Energy

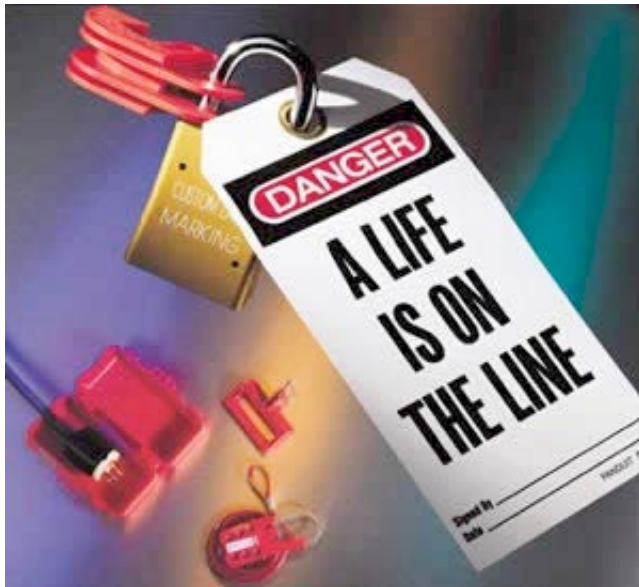
## Lockout / Tagout

General Industry	29 CFR 1910.147 -General 1910.333(b)(2) - Electrical Work
Construction	29 CFR 1926.417(electrical circuits)
Public Sector	29 CFR 1910.147



# Control of Hazardous Energy

## Lockout / Tagout



# Control of Hazardous Energy

## Lockout / Tagout

- Written Program
- Training
- Procedures
- Locks, tags and other devices
- Special circumstances (shift changes, group work)
- Periodic inspections of the procedures and worker's knowledge.



# Control of Hazardous Energy

## Lockout / Tagout

Note: **Exception to paragraph (a)(2)(ii):** Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection (See Subpart O of this Part).



What is “Minor?”

What is “routine, repetitive and integral?”



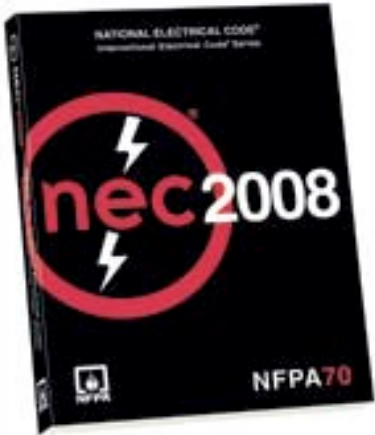
# Electrical Safety

General Industry      Subpart S, including  
OSHA 1910.302 through 1910.335

Public Sector      ???



# Electrical Safety

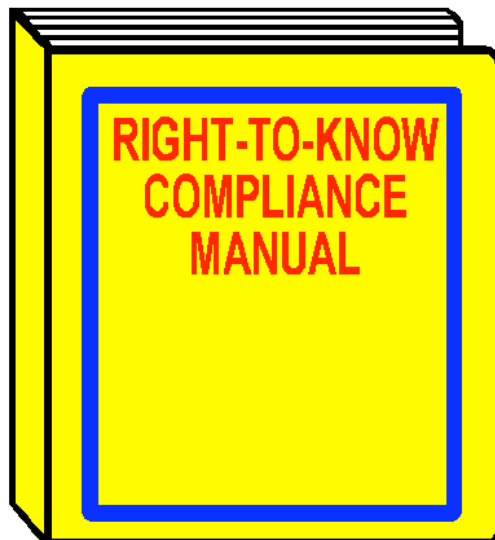


# Hazard Communications

General Industry	OSHA 1910.1200
Construction	OSHA 1926.59 (refers to 1910.1200)
Public Sector	You Get the Idea...

# Hazard Communications

Training



Written Program



# Hazard Communications

## Material Safety Data Sheets



## Labeling



# Personal Protective Equipment



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# Personal Protective Equipment

- Engineer
- Administration
- PPE
  - At no expense to the employee
- 1910.132(d)(2)
  - Written Certification of PPE Hazard Assessment
- Identification of Hazards
  - IH
  - JSAs
  - MSDS reviews
- Limitations
  - Duration / Exposure
  - Expected life
  - Permeation





## Lake County Department of Utilities

### PPE Selection Guide

Location:	Bacon Road Water Plant
Job Description:	Water Operator
Task:	Changing Chlorine Cylinders
Task Duration:	15 minutes



Recommended PPE:

# Injury & Illness Recordkeeping

Private Industry      OSHA 1904

Public Sector      ORC 4167.01



## Compensability versus Recordability



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# Injury & Illness Recordkeeping - Private

## OSHA's Form 300 (Rev. 01/2004) Log of Work-Related Injuries and Illnesses

**Attention:** This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year \_\_\_\_\_  
  
**U.S. Department of Labor**  
 Occupational Safety and Health Administration

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Form approved OMB no. 1218-017

Establishment name \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_

Identify the person			Describe the case			Classify the case				Enter the number of days the injured or ill worker was:						
(A) Case No.	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:		Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one illness:						
						Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	(M)				
						(G)	(H)	Job transfer or restriction	Other recordable cases	(K)	(L)	Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss
						(I)	(J)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Page totals</b>						0	0	0	0	0	0	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

# Injury & Illness Recordkeeping - Public

State of Ohio - Public Employment Risk Reduction Program — Form 300P (Rev. 07/2007)

## Log of Work-Related Injuries and Illnesses

**Attention:** This form (or an equivalent) must be completed by all OHIO PUBLIC EMPLOYERS, which means: The State of Ohio and its instrumentalities; and any political subdivisions and their instrumentalities, including any county, county or state hospital, municipal corporation, city, village, township, park district, school district, state institutions of higher learning, public or special district, state agency, authority, commission, or board as defined in ORC 4167.01.

If you are an Ohio Public Employer, you must use this form to record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or other practicing licensed health care professional (PLHCP). You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in the instructions for these forms. Feel free to use two lines for a single case if you need more space or create additional copies of this form if you need multiple pages. If you are filling out the electronic version of this form, you may also add rows to create additional lines for more incidents. You must complete an injury and illness incident report (PERRP Form 300IP, or an equivalent form) for each injury or illness recorded on this form. You must keep this form on file for five years following the year to which it pertains (OAC 4167-6-07). If you're not sure whether a case is recordable, call the Public Employment Risk Reduction Program (PERRRP) for assistance at: (800) 871-6668.

**Attention:** This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Establishment name \_\_\_\_\_  
City \_\_\_\_\_ State Ohio

Identify the person			Describe the case			Classify the case														
(A) Case number	(B) Employee's name (Lastname, Firstname)	(C) Job title (e.g., welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g., loading dock north end.)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., second degree burns on right forearm from acetylene torch.)	CHECK ONLY ONE box for each case based on the most serious outcome for that case.					Enter the number of days the injured or ill worker was:		Check the "Injury" column <u>or</u> choose one type of illness. If electronically completing this form enter a "X" to indicate an injury or type of illness.							
						Enter a "1" to indicate case outcome if filing out electronically.					On the job transfer or restriction (days)		(M)							
						Death	Days away from work	Remained at work		Away from work (days)		Injury	Skin disorder		Respiratory condition		Poisoning	Hearing loss	All other illnesses	
						(G)	(H)	Job transfer or restriction	Other recordable cases	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)			
<b>Page totals</b>						0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Be sure to transfer these totals to the Summary page (Form 300AP) before you post it.



**Do not post this Log. Post only the Summary.**

# Machinery and Machine Guarding

General Industry      Subpart O, including  
OSHA 1910.212 through 1910.219

Construction          Subpart I, including  
OSHA 1926.300 through 1926.307

Public Sector

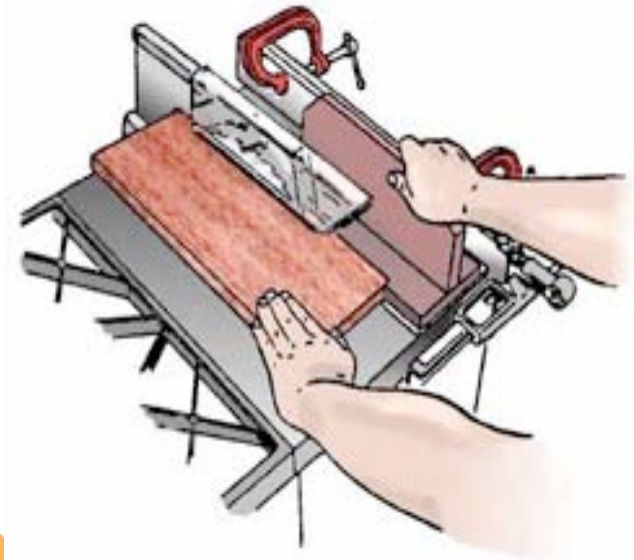
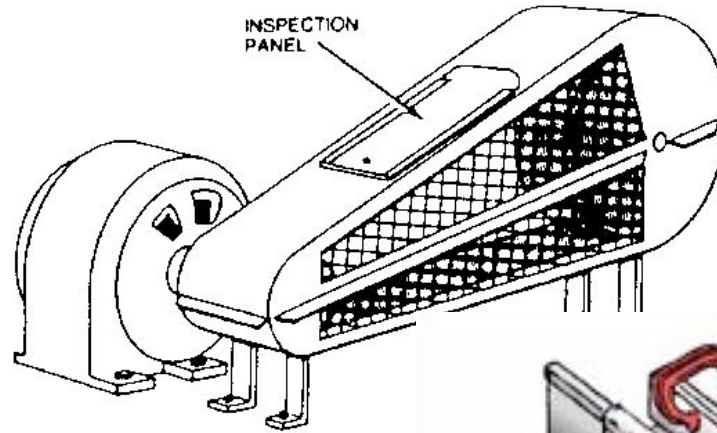


# Machinery and Machine Guarding

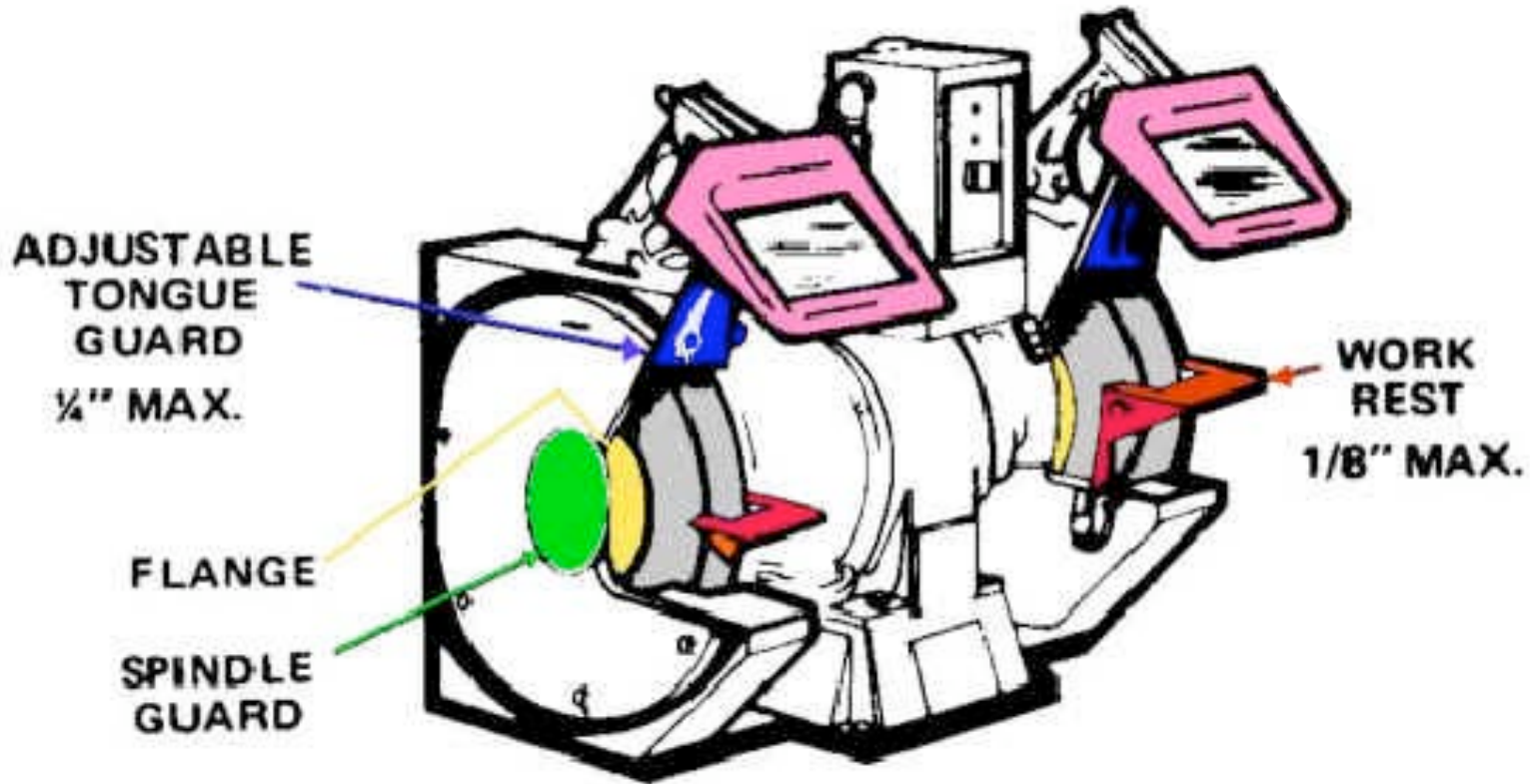


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# Machinery and Machine Guarding



# Machinery and Machine Guarding





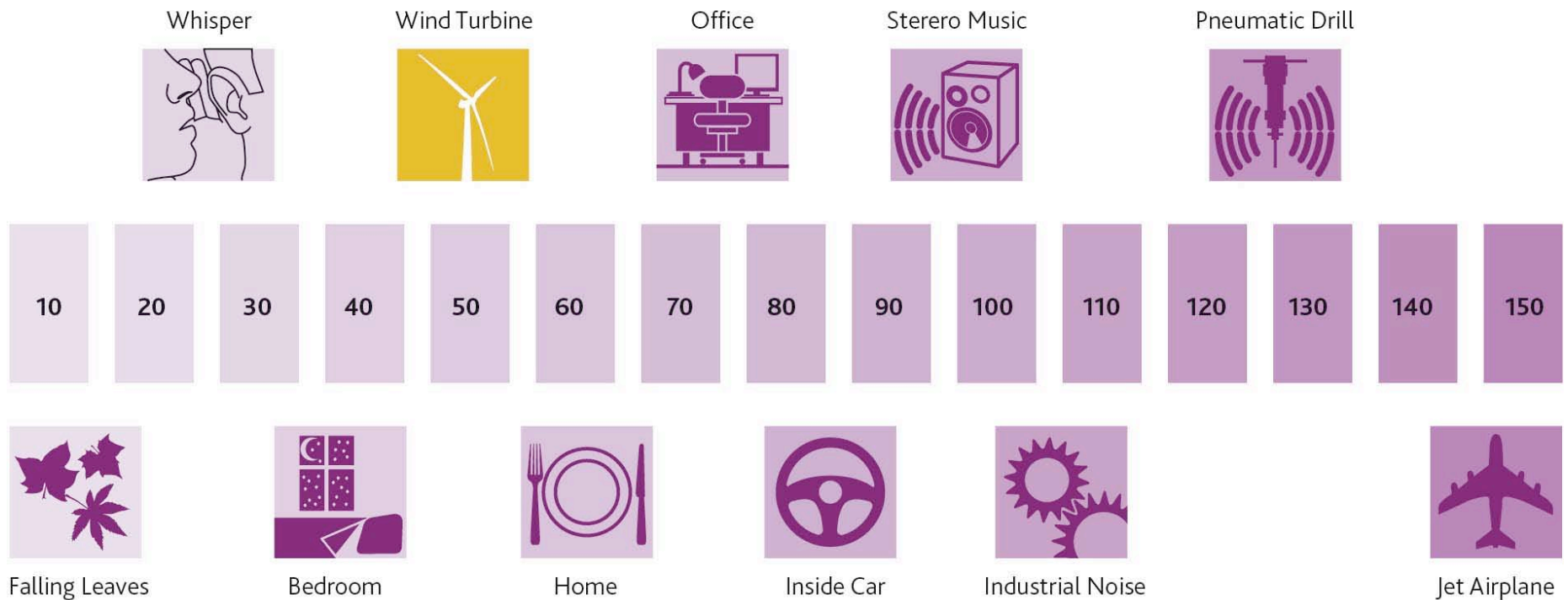
# Hearing Conservation

General Industry      OSHA 1910.95

Public Sector          Uh-huh!

# Hearing Conservation

## DECIBEL CHART

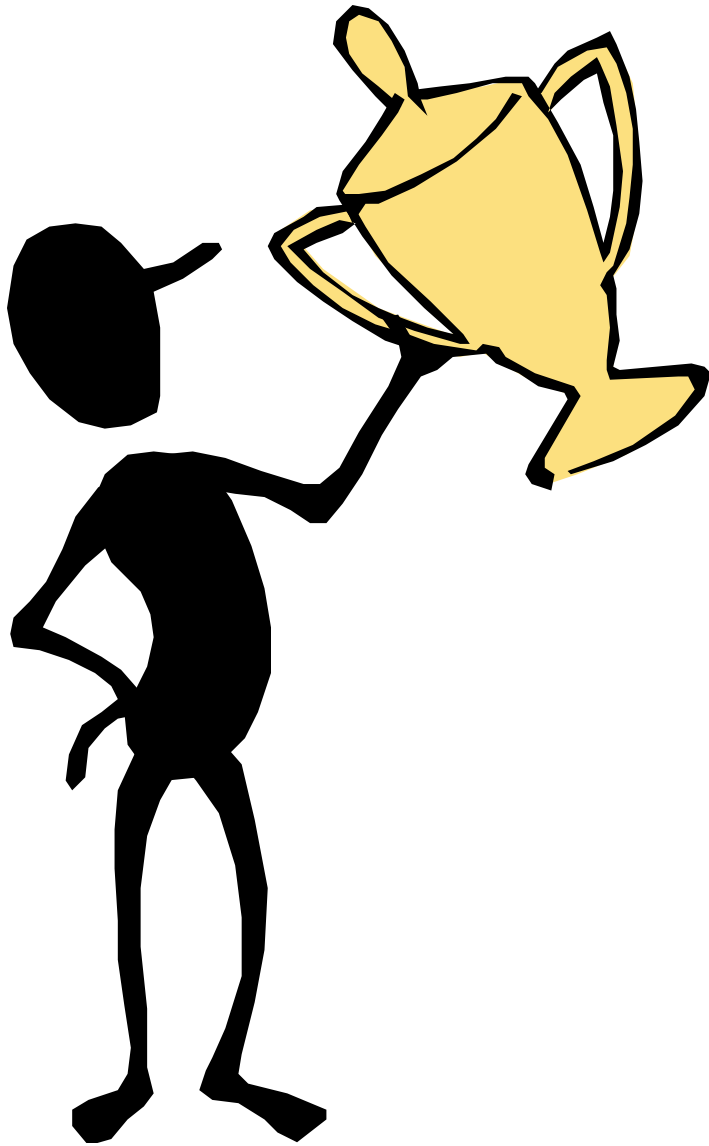


Source: AWEA



# Hearing Conservation





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# The Safety Basics Series Continues...

February 26<sup>th</sup>

**“Safety Training and Inspection Requirements”**

March 26<sup>th</sup>

**“Hazard Communications Requirements”**

March 9<sup>th</sup> – Technical Series

**“OSHA Recordkeeping Training”**

9:00 AM – 12:00 PM

\$50.00 per person



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# Safety Journals and Publications

- ISHN News
  - [www.ishn.com](http://www.ishn.com)
- Professional Safety – ASSE
  - [www.nohio.asse.org](http://www.nohio.asse.org)
- National Safety Council
  - [www.nsc.org](http://www.nsc.org)
- EHS Today
  - [http://www.pentonmsc.com/product.php?brand=EHS\\_Today](http://www.pentonmsc.com/product.php?brand=EHS_Today)