



# Commonwealth of Massachusetts

## Executive Office of Labor and Workforce Development

### HEALTH AND SAFETY COMMITTEES FOR EXECUTIVE ORDER #511

Deval L. Patrick, Governor  
Timothy P. Murray, Lieutenant Governor

Joanne Goldstein, Secretary  
Heather Rowe, Director

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# Why Was an Executive Order on State Worker Health and Safety Needed?

The screenshot shows a Windows Internet Explorer browser window with the address bar containing the URL: [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=OSHACT&p\\_id=2743](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=OSHACT&p_id=2743). The browser title is "0 - Complete OSH Act Version ("All-in-One") - Windows Internet Explorer". The page content is from the United States Department of Labor, Occupational Safety & Health Administration, and is titled "OSH Act of 1970".

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

[www.OSHA.gov](http://www.OSHA.gov) A-Z Index: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) Search OSHA

**OSH Act of 1970**

[OSH Act of 1970 - Table of Contents](#)

Public Law 91-596  
84 STAT. 1590  
91st Congress, S.2193  
December 29, 1970,  
as amended through January 1, 2004. (1)

**An Act**

To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health; and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Occupational Safety and Health Act of 1970."*

**Footnote (1)** See Historical notes at the end of this document for changes and amendments affecting the OSH Act since its passage in 1970 through January 1, 2004.

**SEC. 2. Congressional Findings and Purpose**

(a) The Congress finds that personal injuries and illnesses arising out of work situations impose a substantial burden upon, and are a hindrance to, interstate commerce in terms of lost production, wage loss, medical expenses, and disability compensation payments. 29 USC 651

Done

start | Inboxes - Microsoft Out... | executiveorder | Microsoft PowerPoint ... | 0 - Complete OSH Act... | Internet | 100% | 4:51 PM

# Private versus Public Sector Workplaces

- ▶ As of the 1970 OSH Act, all private sector workplaces in the US were automatically covered by federal OSHA standards, and are subject to inspections, fines, and citations by OSHA inspectors.



# Private versus Public Sector Workplaces

- ▶ Public sector workplaces are only covered by OSHA Standards in certain states (about half of all states). Known as “State-plan States”. In these states, the state has taken over the functions of OSHA with partial funding and oversight by OSHA.
- ▶ CT – public sector only, VT – public and private sector



The screenshot shows the OSHA website page titled "State Occupational Safety and Health Plans". The page header includes the United States Department of Labor logo and the text "OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION". Below the header is a search bar and a navigation menu. The main content area features a map of the United States with colored dots indicating state plans. The text on the page explains that Section 18 of the Occupational Safety and Health Act of 1970 encourages states to develop their own job safety and health programs. A "Quick Links" section lists 26 states that have approved State Plans: Alaska, Arizona, California, Hawaii, Illinois, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virgin Islands, Virginia, Washington, and Wyoming. A note specifies that Connecticut, Illinois, New Jersey, New York, and Virgin Islands plans cover public sector (State & local government) employment only. The page also includes a "Frequently asked questions" section and a "State Plan Directory" link.

# Private versus Public Sector Workplaces

- ▶ There are additional States that have adopted some form of OSHA standards as part of state law for public sector employees.
  - **Maine, Rhode Island** (State adopted)
  - **New Hampshire** (State adopted certain OSHA standards—not all standards)



# Massachusetts

- ▶ Massachusetts is not a State-plan State
- ▶ Massachusetts has not adopted any of the OSHA standards for public sector employees



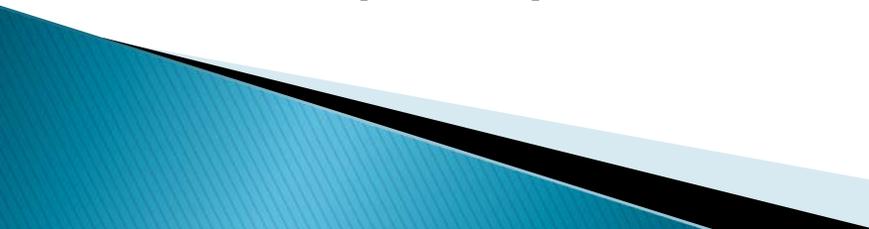
# Massachusetts Public Sector Employees Worker Safety and Health

- ▶ MA Division of Occupational Safety (DOS) has jurisdiction for municipal and county employees through Chapter 149 Section 6, state employees are specifically exempted from this law.
- ▶ The Commonwealth of Massachusetts Personnel Administrator (PA) has jurisdiction for state employees\*.
  - PA works in partnership with DOS.
  - DOS conducts trainings, workplace assessments, accident investigations.

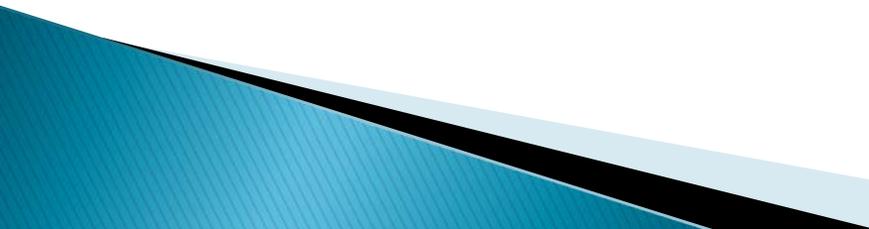
\* May exclude authorities, depends on charter.



# Massachusetts Public Sector Employees Worker Safety and Health

- ▶ Some agencies have health and safety staff.
  - ▶ Some agencies have made varying efforts towards protecting workers.
  - ▶ Health and safety standards have not been formally set for state employees (through HRD policy, state or federal law).
  - ▶ There is no formal enforcement mechanism for state worker health and safety (through HRD policy, state or federal law).
- 

# Why the EO When We Have Health and Safety Staff?

- ▶ Not all agencies have health and safety staff
  - ▶ Lacking in full authority
    - No authority to obtain financial resources
    - No management authority to implement policies
    - No supervisory authority over workers
  - ▶ Organizational and cultural change cannot happen with one person or staff
- 

# The Costs of Workplace Fatalities, Injuries, and Illnesses

- ▶ Devastation of a family torn apart by loss of a loved one.
- ▶ Loss of quality of life with a serious injury.
- ▶ Co-workers and others who witness a serious accident traumatized, will never be the same.



# The Costs of Workplace Fatalities, Injuries, and Illnesses

- ▶ Enormous financial liability with catastrophic events.
- ▶ Loss of trained worker, loss of morale, agency less able to deliver services.



For less serious injuries:

- ▶ Pain and suffering, lost time, loss of morale, comp claims.

# What is in Executive Order 511?

- ▶ Designation of secretariat level health and safety coordinators.
- ▶ Requirement for formation of health and safety committees.
- ▶ Assessment of health and safety hazards and protective measures.
- ▶ Creation of the Massachusetts Employee Safety and Health Advisory Committee.
- ▶ Requirement for injury/illness reporting comparable to private sector OSHA 300 logs. (already occurring)



# Does this mean state employees are now covered by OSHA standards?



- ▶ Not yet, this is a first step, but an important first step. This is the first formalized action taken in 40 years, and will set up the infrastructure to implement further worker protections.
- ▶ The EO states that “further information is needed to determine what additional measures are warranted to protect the safety and health of the Commonwealth's employees.”

# Does this mean state employees are now covered by OSHA standards?

- ▶ In addition, an OSHA standard is not the “consensus standard” for all hazards. That means the standard recognized as the most protective by the majority of technical experts, and the standard most widely used to protect employees from a certain hazard.



- ▶ Other important standards exist for certain hazards, e.g., National Fire Protection Association (NFPA), American National Standards Institute (ANSI), Manual on Uniform Traffic Control Devices (MUTCD).

# Have Other Actions Been Tried?

- ▶ Over the years, numerous bills that require public sector employees to be covered by OSHA standards have been proposed in Massachusetts and also at the federal level.
  - ▶ None has succeeded to date.
  - ▶ Given the scope of such an action, it has not been possible to quantify what this would cost.
- 

# What About Existing Health and Safety Measures?

- ▶ For the time being, the Executive Order will work in parallel with all other existing health and safety work. DO NOT discontinue any of the good measures that are in place now.
  - ▶ Ideally, in the future, the health and safety infrastructure created by the Executive Order will have a central role in coordinating all health and safety efforts.
- 



# Why Health and Safety Committees?

- ▶ Shown by studies to be the most effective health and safety measure that can be taken.
  - ▶ A team approach is needed since this is a multi-dimensional issue.
  - ▶ Culture change is needed to create behavior change.
- 

# Health and Safety Committees– Who Should Be Included?

- ▶ Committee leadership:
  - Co–chairs, one from management and one from labor.
- ▶ Committee membership:
  - Representation from senior management.
  - Representation from labor (including adequate representation from different unions).
  - Representation from line management.
  - Representation from facilities management.
  - Health and Safety Staff
  - Members can wear more than one hat
- ▶ Key factor: there is a good understanding of the daily tasks of all of the different sets of employees who fall under this committee, so that the hazards they face can be identified.

# Health and Safety Committees – Logistics

- ▶ Try and keep the committee size to 15 or less or meetings will become unmanageable.
- ▶ Committees would typically meet once a month.



- ▶ Members or designees will conduct work in between meetings.

# What will the H & S Committees Do?

- ▶ Take a look at the level of employee exposure in your agency and what is currently in place to protect workers from the top set of known serious hazards. Things that will cause a fatality or life-altering injury.
  - ▶ Focus on what is in place in terms of health and safety systems to ensure sustainable and effective protections.
  - ▶ This will be accomplished through a set of hazard assessment tools provided to each committee.
- 

# What is a health and safety system?

- ▶ A combination of all of the elements needed to ensure that employees follow safety practices **EVERY TIME** they are at risk.
  - Not occasionally, or sometimes, or usually, but **ALWAYS**.
- ▶ Employees are entirely surrounded by a safety shield, they have a full circle of protection.



# Employees at Risk

- ▶ A state worker was observed yesterday working on a highly sloped roof with no fall protection.
  - ▶ I am worried about this worker today, but I am also worried about tomorrow, next week, next month, and next year. What are the chances he or a co-worker will be up there again with no protection?
- 

# I Want to Know:

- ▶ WHY was he on that roof without following safety procedures? Why aren't we seeing this:



# Why?

- ▶ The agency he works for does not own any fall protection equipment.



# Why?

- ▶ The agency he works for does not have a policy that fall protection procedures should be followed when working at height.



# Why?

- ▶ The fall protection equipment owned by the agency does not work for this particular situation.



# Why?

- ▶ The fall protection equipment is broken.

# Why?

- ▶ This worker is a very large man and the harnesses they have are too small for him.



# Why?

- ▶ The agency doesn't want to see anyone get hurt working at height, but there is no specific plan about how to keep these employees safe.



# Why?

- ▶ The guy who knew all about fall protection retired last month, and now the workers don't know what to do.



# Why?

- ▶ The manufacturer's instructions for the fall protection has been lost, and the worker was not sure how to set up an anchor point for his harness.



# Why?

- ▶ The workers did not know they should be using fall protection in this situation.



# Why?

- ▶ The workers didn't feel like taking the extra effort to use the equipment.

# Why?

- ▶ They have never used fall protection equipment before and there has never been an accident, so the “safety culture” is “it’s not gonna happen to me.”



"Can I swap you for a fool  
hardy lack of concern?"

# Why?

- ▶ The workers were called off one job to an emergency at this site and they didn't have fall protection equipment with them, and they "didn't have time" to stop back to the shop and pick it up.



# Why?

- ▶ The agency bought fall protection equipment, but the workers were never trained in how to use it, or when it was required.



# Why?

- ▶ The foreman thinks safety equipment is for wimps and losers, and he does not allow employees the time to set-up and don the equipment.

# Why?

- ▶ The boss has been pushing on work quotas, and employees are afraid to take the time to use safety equipment.



# Why?

- ▶ This is a new employee who was not trained in when he was supposed to use fall protection.

# Why?

- ▶ There is no discipline for not using safety gear, so this employee just didn't bother.



# Why?

- ▶ The worker didn't bother because he is not required to follow OSHA standards.
- ▶ Question: will this employee be less dead when he falls 50 feet because he wasn't covered by OSHA standards? Does the hard concrete he is plummeting towards know whether or not he is covered by OSHA standards? Does his skull?



# Employees at Risk

- ▶ The fire alarm just went off in a state office building, there is an actual fire occurring in the boiler room. None of the employees from one side of the fifth floor evacuated have come outside.
  
  - ▶ Why?
- 

# Why?

- ▶ The fire alarms do not work in that part of the building.



# Why?

- ▶ The fire alarms go off all the time, these employees stopped taking it seriously.



# Why?

- ▶ These employees were never trained to evacuate when the fire alarm sounds.



# Why?

- ▶ There is a big report due today, and the boss told everyone to just keep working.



# Why?

- ▶ There are no floor marshalls assigned to make sure that everyone leaves.



# Why?

- ▶ One of the employees is on crutches with a broken leg, and his friends wanted to stay with him.



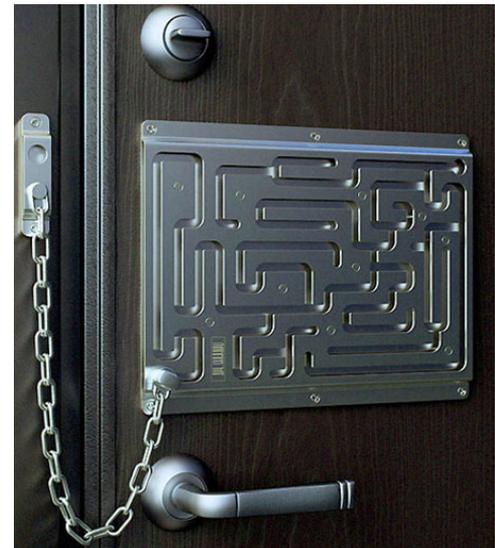
# Why?

- ▶ These employees actually did evacuate, but no one told them the meeting spot. So instead, they went out the back door to the back parking lot and then over to Dunkin Donuts. The firefighters have to assume there are still people inside the building.



# Why?

- ▶ The employees tried to leave and are currently locked in the back stairwell. The door to the outside is chained and locked, and the floor doors are locked from the stairwell side for security purposes.



# An Unprotected Employee

- ▶ An employee is washing glassware in a state laboratory with a strong acid detergent. He spills some of the detergent, and gets a lot on his gloves. He raises his arms and acid runs down off the gloves onto bare arm skin causing severe burns.



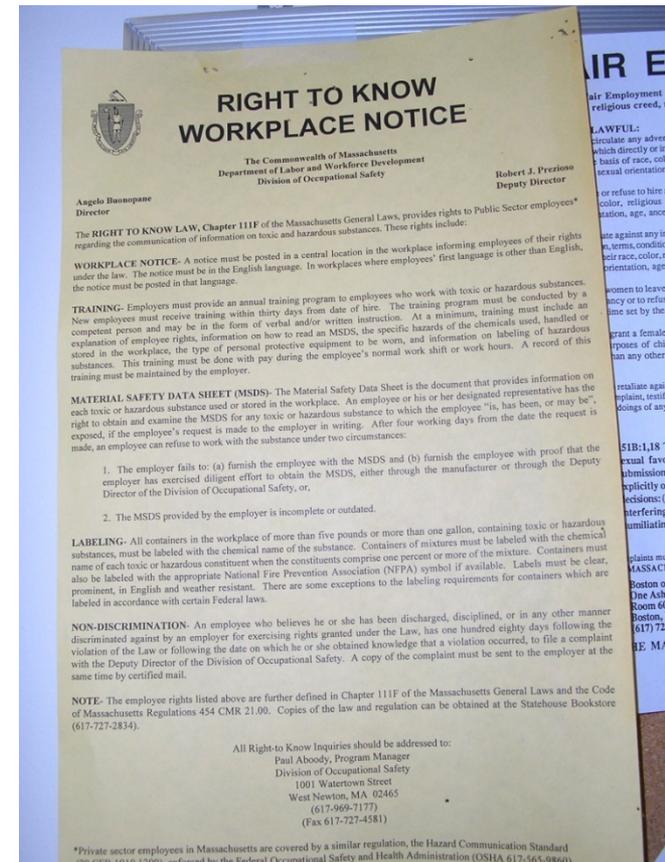
# Why?

- ▶ The employee had no idea he was working with a dangerous corrosive chemical.



# Why?

- ▶ A workplace Right-to-Know notice had never been posted at his workplace.

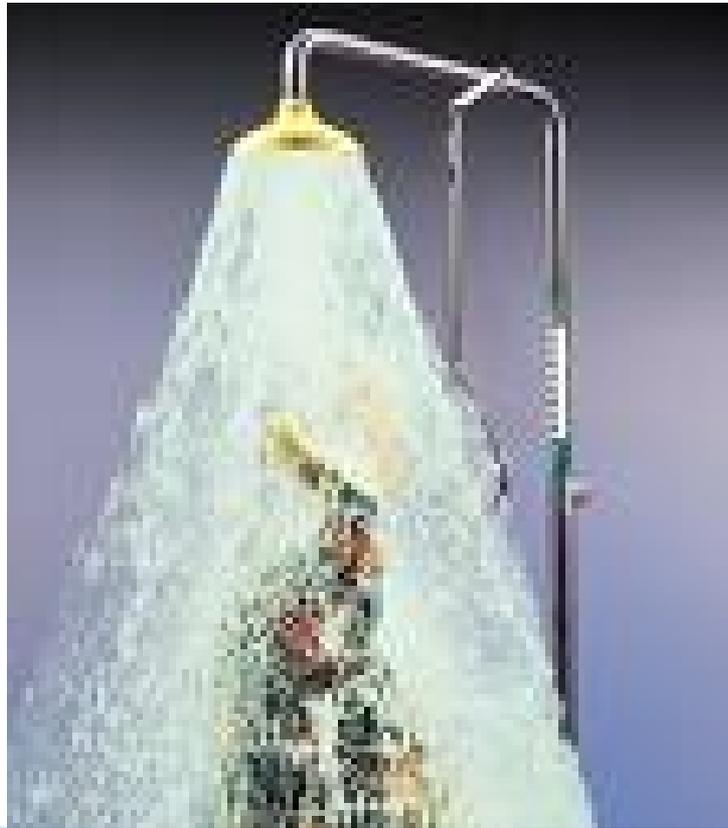


# Why?

- ▶ The employee received no training, or...
  - ▶ The employee received generic chemical safety training, but was not trained in how to protect himself from the hazards with the chemicals he actually used on the job everyday.
- 

# Why?

- ▶ The employee had never been told that there was a safety drench shower at his workplace.



# Why?

- ▶ There was no safety shower at his workplace.

# Why?

- ▶ The employee could not get to the shower quickly enough because he had to open two door handles then go down a long hallway while afraid and in pain.

# Why?

- ▶ The safety shower was not working.



# Why?

- ▶ The employee was never trained to cuff or tape his gloves to prevent the dangerous dishwashing liquid from running down his arms.



# What is Needed for a “Full-Circle” Health and Safety System

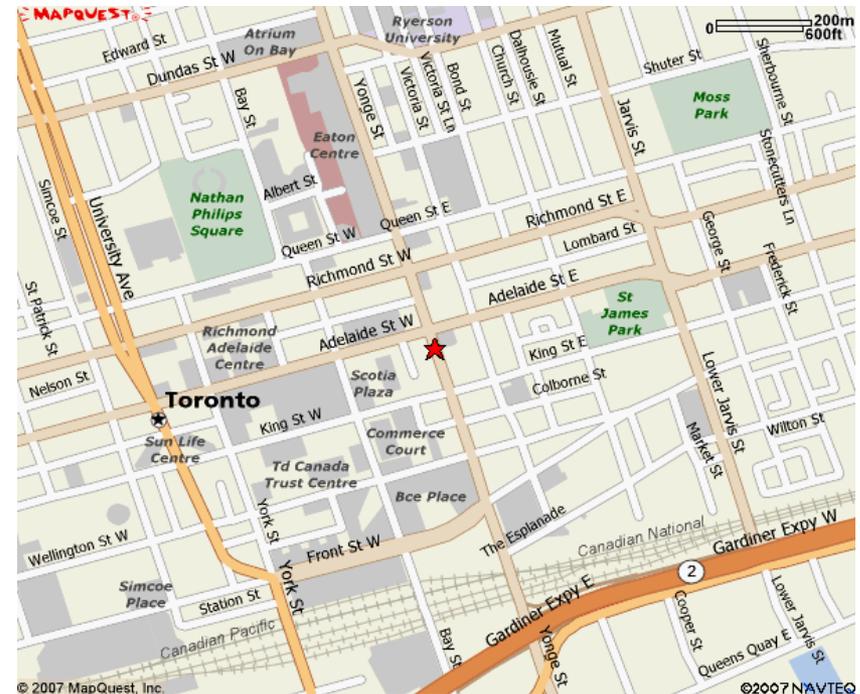
- ▶ Upper Management Support – It is the policy of the agency that health and safety procedures are followed.
  - A written policy is strongly recommended.

# What is Needed for a “Full-Circle” Health and Safety System

- ▶ Identification and use of the correct health and safety procedures – The consensus technical standard or guideline is followed for each hazard, most often the OSHA standard.

# Create a Roadmap to Safety – You Can't Get There if You Don't Have a Destination

- ▶ What standard or regulation should be followed?
  - Required actions.
  - Equipment requirements and specifications.
  - Training requirements.
  - Engineering controls.
  - Other requirements.



# What is Needed for a “Full-Circle” Health and Safety System

## ▶ Accountability:

- Someone is in charge of ensuring worker health and safety.
  - Senior management level.
  - Day-to-day at job sites.
- Everyone through full hierarchy knows what they are required to do.
- Health and safety procedures are enforced. Both positive and negative reinforcement can be used. A written policy helps to ensure fair enforcement.



# What is Needed for a “Full-Circle” Health and Safety System

- ▶ Training:
    - Employees are fully trained in all aspects of how to protect themselves from each hazard, including the specifics of THEIR WORKPLACE, procedures, equipment, etc.
    - Retraining occurs as necessary.
    - New employees are trained in a timely manner.
    - Training is technically accurate and effective.
- 

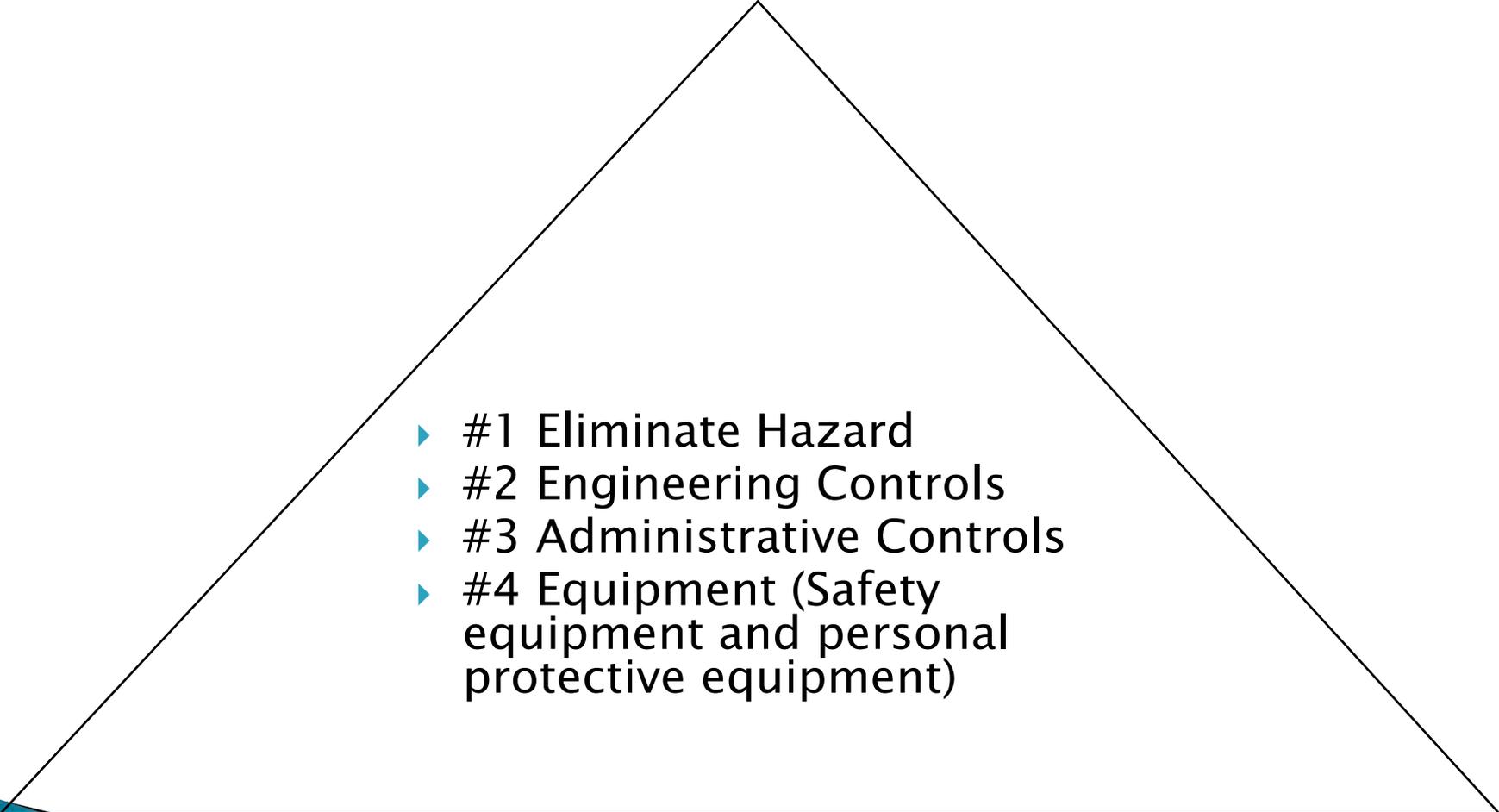
# What is Needed for a “Full-Circle” Health and Safety System

- ▶ “Controls” – things or methods that protect employees from a hazard.
  - Personal fall arrest system (harness attached to anchor point).
  - Roof edge warning flags.
  - Fire alarms.
  - Floor marshalls.
  - Sprinkler systems.
  - “Exit” signs.
  - Chemically-protective gloves.
  - Safety shower.

# What is Needed for a “Full-Circle” Health and Safety System

- ▶ More examples of “Controls”
  - Policy for a two-person lift.
  - Ventilation.
  - Safety glasses or goggles.
  - Trench boxes or shoring.
  - Four-gas monitor.
  - Increased rest schedule when working in heat.
  - Reflective vests and clothing.
  - Traffic cones and temporary signs.
  - Hard hats.

# Hierarchy of Controls

- 
- ▶ #1 Eliminate Hazard
  - ▶ #2 Engineering Controls
  - ▶ #3 Administrative Controls
  - ▶ #4 Equipment (Safety equipment and personal protective equipment)

# What is Needed for a “Full-Circle” Health and Safety System

- ▶ Upper Management Support
  - ▶ Technical Standard
  - ▶ Accountability
  - ▶ Training
  - ▶ Controls
- 

# A “Full-Circle” Health and Safety System

- ▶ Even though each slice is important,
- ▶ You need the **WHOLE PIE**



- ▶ Or you will have unprotected employees up on that roof, or in that burning building, or facing the numerous hazards state employees face.

# A “Full-Circle” Health and Safety System

- ▶ The most common “single slice” is training.



- ▶ Safety training DOES NOT keep employees safe, unless there is follow through on all the safety procedures they learn, and they are actually implemented.

# Evaluating Risk

- ▶ **Known Hazards:** Employees in certain job tasks and settings will face certain known hazards
- ▶ **Workplace Hazard Analysis**
- ▶ **Job / Task Hazard Analysis**
- ▶ **Injury/ Illness Data**
- ▶ **Risk Prioritization**
- ▶ **Employee-Reported:** Survey, employee complaints.



# Do Your Agencies Have...

- ▶ Shops
  - ▶ Laboratories
  - ▶ Vehicle Repair Facilities
  - ▶ Hospitals
  - ▶ Workers in roadways
- 
- ▶ Think about the work setting.



# A Wise Safety Inspector Once Told Me...

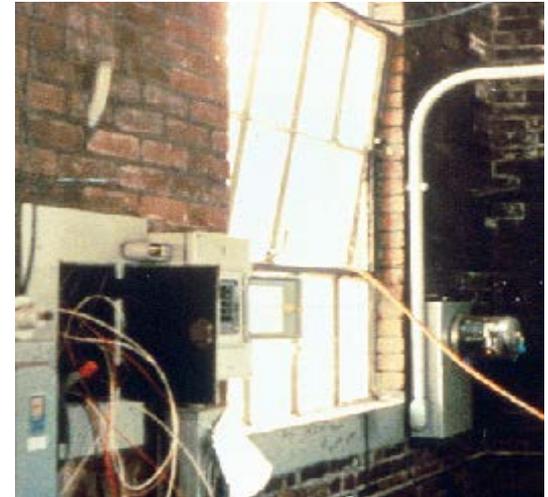
When you go into a new work setting, think:

1. How do I get out of here in an emergency?
2. What in here can hurt me?



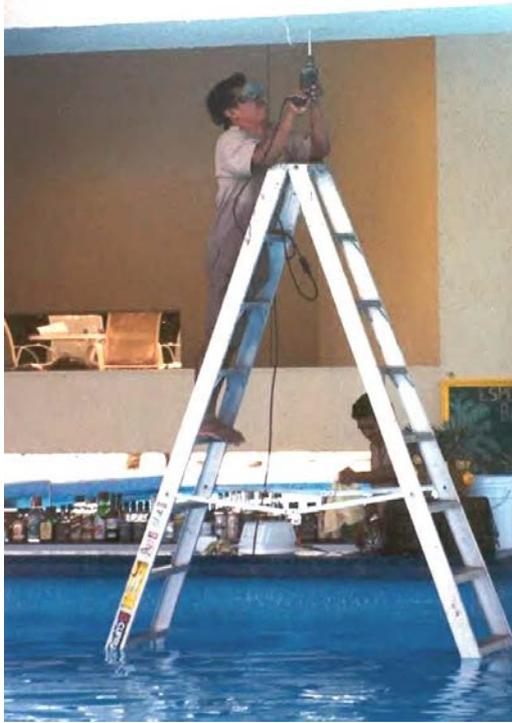
# Do You Have Employees Working With....

- ▶ Electricity
  - ▶ Dangerous Machinery
  - ▶ Hazardous Chemicals
  - ▶ Potentially Disgruntled Customers/Clients
- 
- ▶ Think about the work activity.

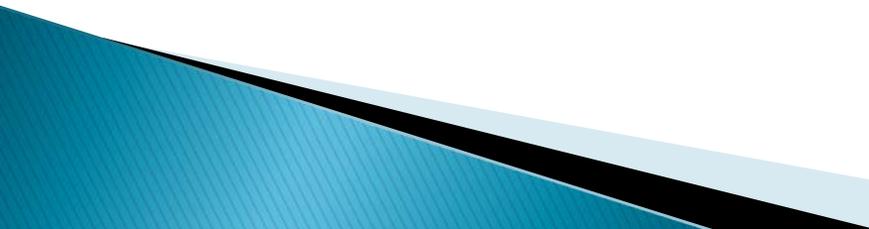


# Evaluating Risk

- ▶ Job/task hazard analysis



# Evaluating Risk

- ▶ Known Hazards: Employees in certain job tasks and settings will face certain known hazards
  - ▶ Workplace Hazard Analysis
  - ▶ Job / Task Hazard Analysis
  - ▶ Injury/ Illness Data, Near Misses
  - ▶ Employee-Reported: Surveys, employee complaints.
- 

# Top Known Serious Hazards

- ▶ Workzone Safety
  - ▶ Falls
  - ▶ Electrical
  - ▶ Lockout/Tagout
  - ▶ Confined Space Entry
  - ▶ Trench Safety
  - ▶ Chemical Hazards
  - ▶ Driving Safety
  - ▶ Life Safety (Fire)
  - ▶ Emergency Action Planning
  - ▶ Workplace Violence
- 

# Life Safety

- ▶ The fire alarm goes off and you rush down the stairs. When you reach the outside emergency exit door, you try to open it and it's locked. You can't get back up the stairs, they are too crowded.



# Building Fires – Do You Have Workers Exposed to This Hazard

- ▶ ALL employees who work indoors for any part of their shift are at risk from being caught in a building fire.

# Emergency Action Planning

- ▶ Your co-worker grabs his chest and falls to the floor. You try 911 and this doesn't seem to work. How do you call for help? You have seen people press on someone's chest on TV, should you try this?



# Emergency Action Planning

- ▶ The fire alarm was pulled and people are rushing outside. You hear that it's a bomb threat. Should you be standing so close the building? Did your friend from the 3<sup>rd</sup> floor make it out? You don't see her.



# Workplace Emergencies – Do You Have Workers Exposed to This Hazard

- ▶ EVERY employee at EVERY workplace is potentially at risk for a medical emergency, severe weather, terrorist attack, chemical spill, flu pandemic, etc.

# Workplace/Domestic Violence

- ▶ You are a counselor meeting with someone who has lost their job. You happen to be alone in the room. The client becomes very angry, standing up and shaking his fists at you, then pounding his fists on the desk.



# Workplace / Domestic Violence

- ▶ You are a victim of domestic abuse and have a restraining order against your husband. Security lets him through, and he goes up to your office where he kills you.

In the Circuit Court of the State of Oregon  
for Multnomah County  
Family Law Department

STATE OF OREGON, }  
Plaintiff, }  
v }  
HOWARD BRADLEY }  
DOB: 09/27/1947 }  
Defendant. }

Court Nbr 95-11-72586  
DA Case 1088079  
Crime Report BP 96-17352  
BP 96-2600  
PP 96-16336

Complaint for violation of  
ORS 33.065  
ORS 107.718 (1-2)  
ORS 107.718 (3)  
Effective Date: 9/29/91; 1997

The above-named defendant is accused by this complaint of the crime(s) of  
COUNT 1-3 - VIOLATION OF A RESTRAINING ORDER, committed as follows:

**COUNT 1**  
VIOLATION OF A RESTRAINING ORDER  
The said defendant, after having been served with Oregon Family Abuse Prevention Act restraining order No. 9511-72586 which was issued on November 3, 1995 and served November 3, 1995 did on or about February 16, 1996, in the County of Multnomah, State of Oregon, willfully molest, interfere and menace BECKY BEATON by yelling at her.

**COUNT 2**  
VIOLATION OF A RESTRAINING ORDER  
The said defendant, after having been served with Oregon Family Abuse Prevention Act restraining order No. 9511-72586 which was issued on November 3, 1995 and served November 3, 1995 did on or about March 29, 1996, in the County of Multnomah, State of Oregon, willfully molest, interfere and menace BECKY BEATON by calling her daughter, Alisha Brackenbrough.

**COUNT 3**  
VIOLATION OF A RESTRAINING ORDER  
The said defendant, after having been served with Oregon Family Abuse Prevention Act restraining order No. 9511-72586 which was issued on November 3, 1995 and served November 3, 1995 did on or about February 22, 1996, in the County of Multnomah, State of Oregon, willfully telephone BECKY BEATON.

Pursuant to ORS 33.105 the Plaintiff seeks imposition of the following punitive sanctions for each separate contempt:

1. A fine of not more than \$500, or one percent of the defendant's annual gross income, whichever is greater.
2. Forfeiture of any proceeds or profits obtained through the contempt.
3. Confinement for not more than six (6) months.
4. Probation or community service.

STATE OF OREGON }  
County of Multnomah } SS.  
I, BECKY BEATON, having been first duly sworn, say that the foregoing complaint is true as I verily believe.

*Becky Beaton*  
BECKY BEATON, Complainant

*Shirley D. Curran*  
Notary Public for Oregon  
My commission expires: 11-1-97

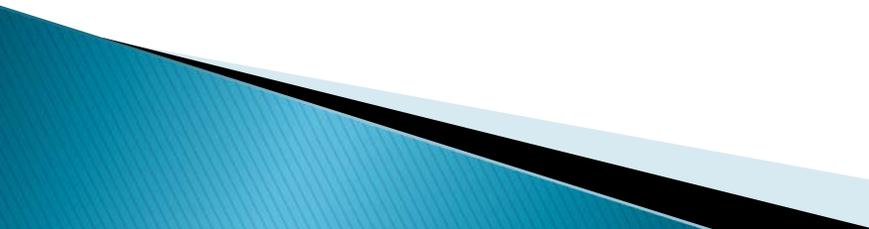
OFFICIAL SEAL  
SHIRLEY D. CURRAN  
NOTARY PUBLIC - OREGON  
COMMISSION NO. 030088  
MY COMMISSION EXPIRES NOV. 01, 1998

Security Amount \$5,000 + \$5,000 + \$5,000

COMPLAINT

83

# Workplace/Domestic Violence – Do You Have Workers Exposed to This Hazard

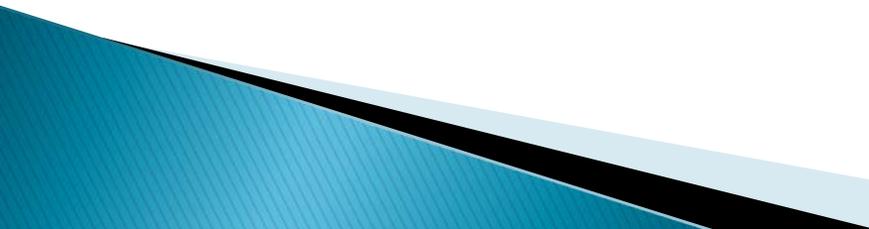
- ▶ ALL employees are potentially at risk from workplace violence by a co-worker.
  - ▶ ALL employees who work with patients, clients, customers, or students are potentially at risk from workplace violence by a client / customer / patient / student.
  - ▶ ALL employees who are potential victims of domestic violence are at risk in their workplace if no measures are taken to keep the perpetrator out.
- 

# Driving Safety

- ▶ After being stuck in traffic for an hour, an aggressive driver cuts you off, yet again. You clench your teeth and think about speeding into that narrow space in the next lane so you can pass him. Your seatbelt is making you sweat so you unbuckle it.



# Driving – Do You Have Workers Exposed to This Hazard

- ▶ Any employee who is driving to a work-related event or activity at a location other than their primary work location.
  - ▶ Any employee whose work setting is a truck or other vehicle as part of their job duties.
  - ▶ Note: Commuting does not fall under worker protection standards.
- 

# Chemical Hazards

- ▶ You have worked in a vehicle repair garage for 30 years, using a parts washing fluid containing benzene. You have just been diagnosed with cancer.



# Chemical Hazards

- ▶ You work in a college laboratory, and have just dumped what remains of a student experiment into the “waste” jar in the fume hood. The explosion blows you across the room.



# Chemicals – Do You Have Workers Exposed to This Hazard

- ▶ Employees who work in laboratories and shops, science teachers, art teachers, custodians, facilities maintenance staff, painters, groundskeepers, mechanics, emergency responders (chemical), can be exposed to hazardous chemicals.
  - ▶ *Note that other employees may be exposed to hazardous chemicals if they are being used in their work area, even if the employee does not work directly with the chemical.*
- 

# Work Zone Safety Risks from Vehicle Traffic

- ▶ You are filling potholes on a roadway. A motorist doesn't see the warning signs in time, and you are struck by the car, sustaining serious injuries.



# Workzone Safety

## Risks from Construction Vehicles

- ▶ You are an engineer reviewing plans at a construction site. You do not hear the back-up alarm on the backhoe since you are on the phone, and the operator doesn't see you. You are crushed to death under the heavy treads.



# Workzones – Do You Have Workers Exposed to This Hazard

- ▶ Any employee working in an active roadway or other area with moving vehicles or on a site with construction vehicles is at risk. Flaggers / detail officers and also employees supervising or overseeing this type of work who are at the work site are also at risk.
- ▶ *Examples: Road repair, utility work, tree trimming, line painting, responders to roadway chemical spills, and traffic accidents, and crossing guards.*

# Fall From Height

- ▶ You are up 20 stories washing windows. You are on a narrow plank suspended by ropes, and you are not attached. The plank tips slightly in the wind and you fall to your death.



# Fall from Height through Opening

- ▶ You are working on a roof, and sit down to have lunch. You don't realize this is a skylight, and fall through the glass to your death.



# Fall from Height – Do You Have Workers Exposed to This Hazard

- ▶ Any employee working at height, or passing through an area where there is a potential fall from height.
  - ▶ *Examples:* Construction and maintenance personnel, painters, window washers, loading dock, stock, and warehouse staff, elevator and amusements inspectors , and corrections officers.
  - ▶ Employees who are not directly involved in construction activities, but who work in or are passing through areas of construction or renovation can be at risk from falls if openings and edges are not adequately guarded, blocked, or marked.
- 

# Electrical Safety – Electricians

- ▶ Arc flash : You are an electrician doing routine work on an electrical panel. In an instant, you are engulfed in flames hotter than the surface of the sun.



# Electrical Safety – Electricians

- ▶ Electrocution: You are doing electrical repair work live or “hot” because it was considered too inconvenient to shut the power off, and you are killed by electrocution when you inadvertently touch a hot part and create a circuit.



**Worker was electrocuted while removing energized fish tape.**

# Electrical Safety for Electricians – Do You Have Workers Exposed to This Hazard

- ▶ Employees installing, updating, or repairing electrical infrastructure such as wiring, panel boxes, circuits, power lines, etc.
  - ▶ Employees installing or repairing any electrified equipment.
- 

# Electrical Safety – General

- ▶ You go to the refrigerator in the employee lunchroom to get a soda. This older, ungrounded unit has become charged. You touch the door with one hand and the counter with the other and are electrocuted.



# Electrical Safety – General – Do You Have Workers Exposed to This Hazard

- ▶ ALL employees in a work environment with electricity, use of electrically-powered equipment, and/or use of electrically powered tools are subject to this hazard.

# Lockout / Tagout Control of Stored Energy

- ▶ You are conducting maintenance at the bottom of an elevator shaft. Before you started, you switched off the electrical circuit. A co-worker comes back from lunch, sees the circuit shut off, and thinks it is a mistake.
- ▶ He flips the switch back on. The elevator resets down to the first floor and you are crushed to death.



# Stored Energy – Do You Have Workers Exposed to This Hazard

- ▶ Any employee conducting maintenance / repair, installation, set up, or inspection of equipment with “stored energy” (electrical, hydraulic, gravity, kinetic) is at risk. This includes equipment and machinery that can move (rise, fall, rotate, press, etc.), with suspended weight, that can discharge air, water, or other material with force, or expose an employee to electricity.
- ▶ *Examples: Employees who are: conducting work on electrified equipment, elevator repair and inspection, amusement ride inspections, repair of industrial machinery, working underneath a suspended vehicle.*

# Confined Space Entry

- ▶ Neither of you survive.
- ▶ You enter inside a boiler to do routine maintenance, unaware that rust has consumed much of the oxygen in the space. You collapse. Your co-worker has no way to pull you out, except to go in after you, so he does.



# Confined Space Entry

## Permit-Required Confined Space:

- ▶ Not designed for continuous occupancy
- ▶ Impaired entry/exit
- ▶ PLUS additional hazard (e.g., atmosphere).



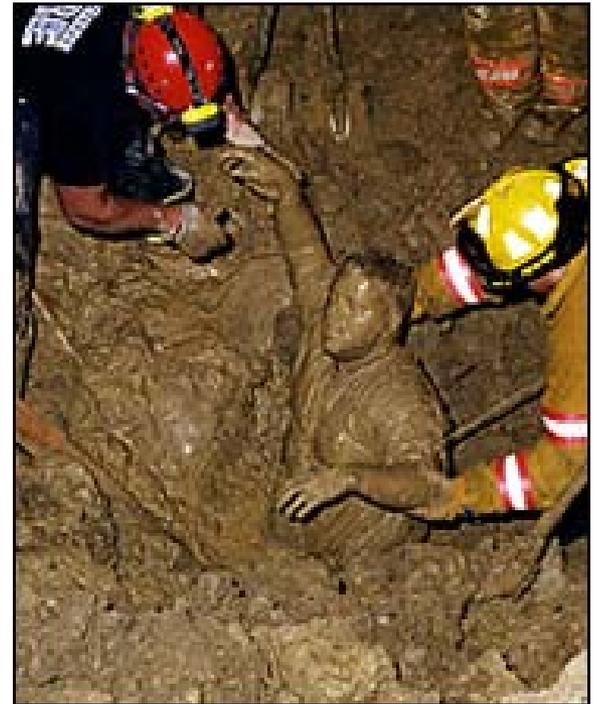
# “Permit-Required” Confined Spaces – Do You Have Workers Exposed to This Hazard?

- ▶ Any employees who must go into a space that is difficult to enter and exit, is not designed for continuous human occupancy, and has an additional hazard such as a problem with the atmosphere.
- ▶ Entering a boiler to inspect it, entering a manhole for utility work, entering a storage tank for cleaning (including underground storage tanks), entering vaults, etc., at water and wastewater treatment facilities.



# Trench Safety

- ▶ You are an employee working in a trench dug into the subsurface soil. A collapse of a small section of the soil wall occurs, this equals 12,000 lbs coming down on you at 45 mph. You have nowhere to run. Imagine being forced to stand in front of a speeding truck and you cannot move out of the way.

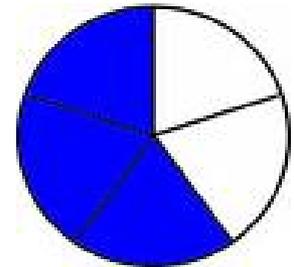
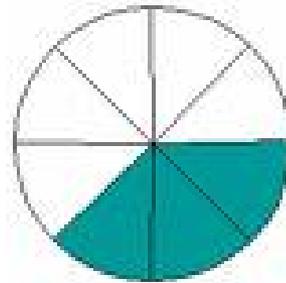
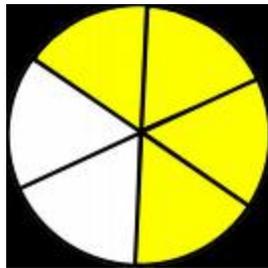


# Trenches – Do You Have Workers Exposed to This Hazard

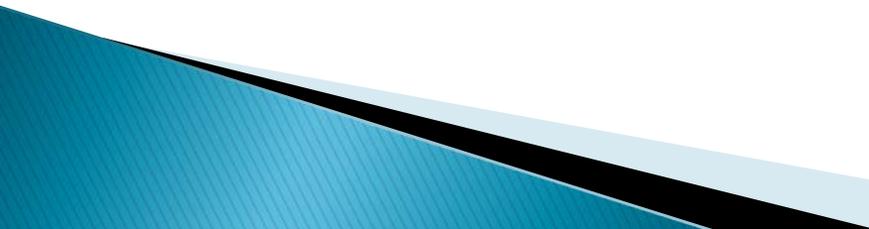
- ▶ Any employee who enters a subsurface excavation with a soil wall on at least one side and less than 15' across the narrow part of the excavation (as measured at the bottom) is exposed to this hazard.
- ▶ *Examples: Employees who are: installing or repairing underground utility pipes, working on foundation exteriors, installing frost walls, installing drainage, conducting / observing perc tests in soil, inspecting septic systems, conducting chemical spill emergency response activities, evaluating contaminated soil, digging graves.*

# Hazard Assessment Tool

- ▶ The purpose of these tools is to answer this question:
  - For each hazard, how “full-circle” is your health and safety system?



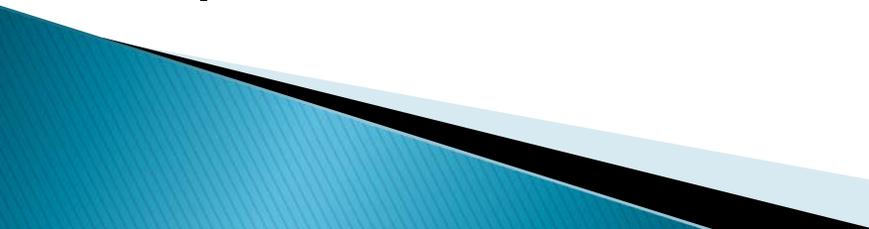
# Health and Safety Background Information

- ▶ Who is in charge of health and safety?
  - ▶ Is there a health and safety staff?
  - ▶ Was there a health and safety committee prior to the EO?
  - ▶ Is there a general health and safety policy?
  - ▶ Are there policies relative to any specific hazards? If yes, why were these developed?
  - ▶ How are health and safety procedures enforced?
  - ▶ Is there a procedure for reporting health and safety concerns? To whom?
- 

# Top Known Serious Hazards

- ▶ Workzone Safety
  - ▶ Falls
  - ▶ Electrical
  - ▶ Lockout/Tagout
  - ▶ Confined Space Entry
  - ▶ Trench Safety
  - ▶ Chemical Hazards
  - ▶ Driving Safety
  - ▶ Life Safety (Fire)
  - ▶ Emergency Action Planning
  - ▶ Workplace Violence
- 

# Hazard Assessment Tool – Overview

- ▶ A separate tool/questionnaire will be completed for each of the top hazards.
  - ▶ Be honest. We need to understand where state employee health and safety actually stands to prioritize and create next steps.
  - ▶ Be as descriptive and thorough as you can, but don't worry if you cannot track down every detail. Get a good gut sense of the big picture, think about holes in the “full circle.”
- 

# Hazard Assessment Tool – Relevance

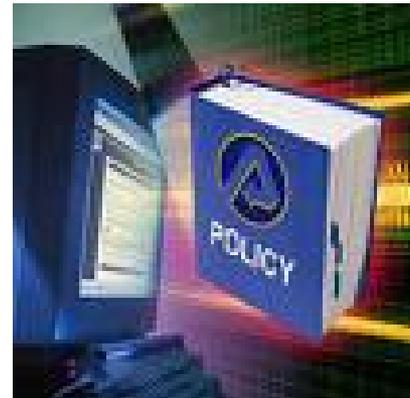
- ▶ What is the hazard?
- ▶ Do you have employees exposed to this hazard?

# Hazard Assessment Tool – Relevance

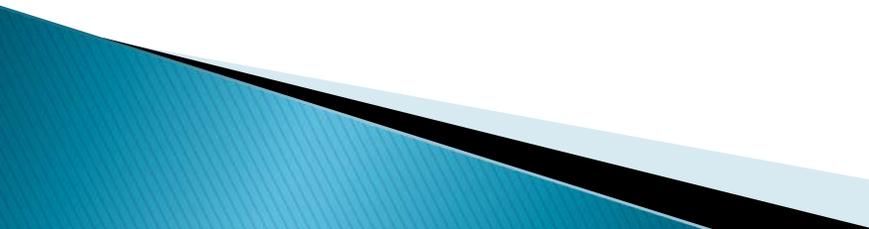
- ▶ How frequently are employees exposed to this hazard?
  - ▶ List the tasks that expose your employees to this hazard.
  - ▶ Estimate the number of employees conducting each task, and the estimated frequency that each task is conducted
    - Per employee
    - For the agency overall
- 

# Hazard Assessment Tool – Standard / Guideline / Policy

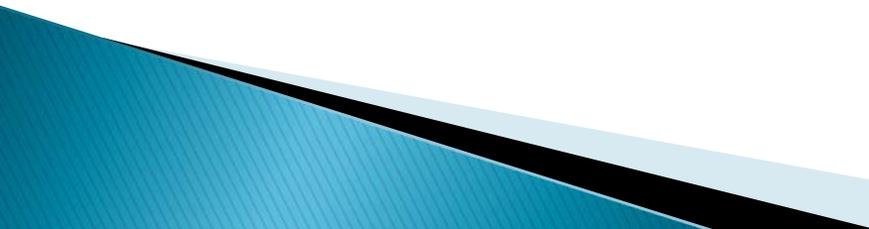
- ▶ What regulation or standard do you follow to protect employees from this hazard, if any?
- ▶ Is there a written policy on this hazard?



# Hazard Assessment Tool – Accountability

- ▶ Who is in charge of ensuring that employees are kept safe from this hazard?
    - A) At the senior management level.
    - B) During day-to-day operations.
  - ▶ How does the agency ensure that the regulation or policy relative to this hazard is followed?
- 

# Hazard Assessment Tool – Training

- ▶ What training have employees received relative to this hazard?
  - ▶ Is this a one-time training?
  - ▶ If no, how often does re-training occur?
  - ▶ When are new employees trained?
  - ▶ Please provide general information on training content.
  - ▶ Did a qualified trainer conduct the training?
- 

# Hazard Assessment Tool – Licensing / Qualifications

- ▶ Is there any special license, qualification or amount of training required before an employee can conduct the tasks you listed that expose employees to this hazard?



# Hazard Assessment Tool – Controls – Engineering

- ▶ What engineering controls are in place for this hazard?
- ▶ Are they functioning properly?
- ▶ How and how frequently are they tested?



# Hazard Assessment Tool – Controls – Safety Equipment

- ▶ What safety equipment do you have for this hazard?
- ▶ What condition is it in?
- ▶ How often is it inspected?
- ▶ Were employees trained in its use and maintenance?
- ▶ Is it labeled with any “approval” designation?
- ▶ How was this equipment selected?
- ▶ Are there manufacturer’s instruction for use?
- ▶ Do you still have these instructions?
- ▶ Are they followed?



# Hazard Assessment Tool – Controls – Safety Equipment

- ▶ How is it determined when this safety equipment should be used?
- ▶ By regulation or standard?
- ▶ By your written policy?
- ▶ By specific criteria?
- ▶ Always use for certain tasks?
- ▶ Case-by-case or field determination?
- ▶ There is no method for determining when safety equipment is used.



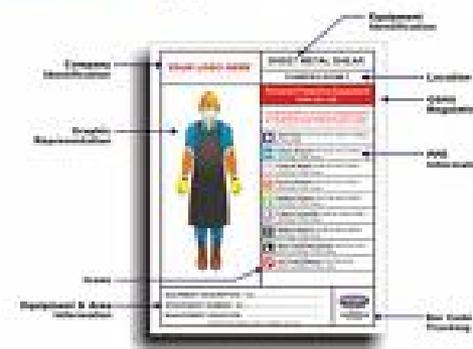
# Hazard Assessment Tool – Controls – Safety Equipment

- ▶ When safety equipment is supposed to be used, how frequently is it actually used?
  - Always    mostly    sometimes    never
- ▶ Do you have the all the correct types of (hazard name) safety equipment you need to cover all the types of worksites you have?
- ▶ Do you have enough of this equipment to cover all active worksites, given that there may be multiple jobs going at the same time?

# Hazard Assessment Tool – Controls – Personal Protective Equipment

- ▶ What personal protective equipment do you have for this hazard?
- ▶ What condition is it in?
- ▶ How often is it inspected?
- ▶ How often is it replaced?
- ▶ Is it shared or individually assigned to employees?
- ▶ Were employees trained in its use and maintenance?
- ▶ Is it labeled with an ANSI number or Class or other “approval” designation?
- ▶ How was this equipment selected?

2009-10-13  
Personal Protective Equipment



# Hazard Assessment Tool – Controls – Personal Protective Equipment

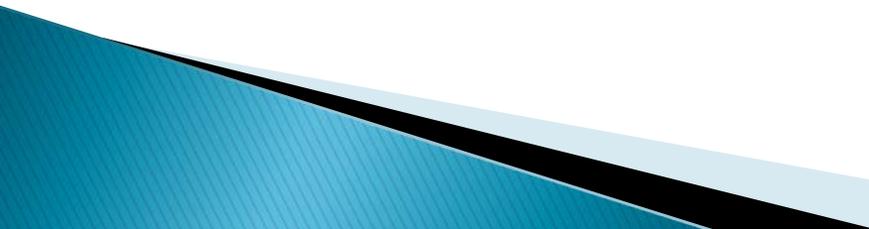
- ▶ How is it determined when personal protective equipment should be used?
- ▶ By regulation or standard?
- ▶ By your written policy?
- ▶ By specific criteria?
- ▶ Always use for certain tasks?
- ▶ Case-by-case or field determination?
- ▶ There is no method for determining when personal protective equipment is used.



# Hazard Assessment Tool – Controls – Personal Protective Equipment

- ▶ When personal protective equipment is supposed to be used, how frequently is it actually used?
  - Always      mostly      sometimes      never
- ▶ For (hazard name), do you have the all the correct types of personal protective equipment you need to cover all the types of work sites or work tasks you have?
- ▶ Do you have enough of this personal protective equipment for all of the employees who need to use it at the same time?

# Hazard Assessment Tool – PPE – Respiratory Protection

- ▶ How was it determined that respirators were needed?
  - ▶ Was medical screening conducted?
  - ▶ Was respirator fit testing conducted?
  - ▶ Who selected the type of respiratory protection to be used? Did they get any technical assistance?
- 

# Hazard Assessment Tool – Controls – Administrative

- ▶ What administrative controls are in place relative to this hazard?



# Hazard Assessment Tool – Emergency Planning

- ▶ Is there a plan in place to respond to an accident or emergency with this hazard? Are you relying on outside responders or do you have an internal response team?
  - ▶ If you are relying on outside responders, have they been made aware of the (type) hazards at your facility?
  - ▶ Do you know if they are trained and equipped to respond to this type of emergency?
  - ▶ If you plan to use internal responders, what type of training did internal responders receive?
  - ▶ Has the emergency response plan for this hazard been tested with a drill?
- 

# Prevention

- ▶ Can you identify any ways to reduce or eliminate employee exposure to this hazard?
  - Eliminate the task?
  - Substitute different materials?
  - Change the SOP?
  - Eliminate the need for the employee to enter the hazardous area?
    - Do the task remotely?
    - Use cameras?
    - Use a tool?

# Hazard Assessment Tool – Other

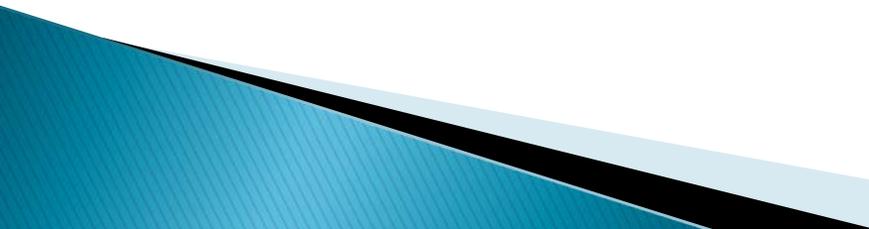
- ▶ Are there any other specific controls to protect employees from this hazard?
- ▶ Any other general comments, thoughts, ideas, suggestions, etc.



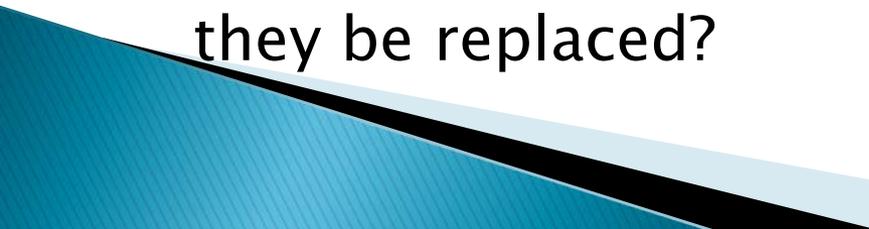
# Why not a “snapshot”?

- ▶ What % of employees have been trained on chemical hazards? 90%
  - ▶ How many hard hats do you have? 100
  - ▶ Do you have a security plan for all of your employees in a domestic abuse situation?  
YES
  - ▶ Looks pretty good, right?
- 

# What Don't I Know?

- ▶ What % of employees have been trained on chemical hazards? 90%
  - ▶ What are the jobs of the 10% who weren't trained?
  - ▶ Were employees trained on specific chemical hazards?
  - ▶ How long ago were they trained?
  - ▶ When will this 90% be retrained?
  - ▶ When will new employees be trained?
  - ▶ Was the instructor qualified?
- 

# What Don't I Know?

- ▶ How many hard hats do you have? 100
  - ▶ Do employees actually wear the hard hats?
  - ▶ Do employees know when they are required to wear a hard hat? Is that enforced?
  - ▶ Are they assigned out, or in a general supply closet?
  - ▶ Do these hard hats meet current technical requirements for hard hats?
  - ▶ Is 100 enough for all employees who need a hard hat?
  - ▶ Are these hard hats in good condition?
  - ▶ Will this still be true one year from now? If not, will they be replaced?
- 

# What Don't I Know?

- ▶ Do you have a security plan for all of your employees in a domestic abuse situation? YES
  - ▶ Have all employees been trained to come forward and report their situation?
  - ▶ Is there a policy relative to confidentiality, reprisals or other barriers to coming forward?
  - ▶ How comprehensive is your plan?
  - ▶ Have necessary employees been trained on the plan?
- 

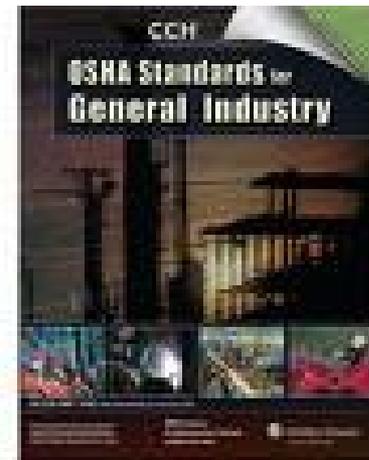
# Next Steps

- ▶ Committees will spend the next 4 to 6 months completing the hazard assessment tools in preparation for a second training.
- ▶ The second training for the health and safety committee chairs will occur in the fall.

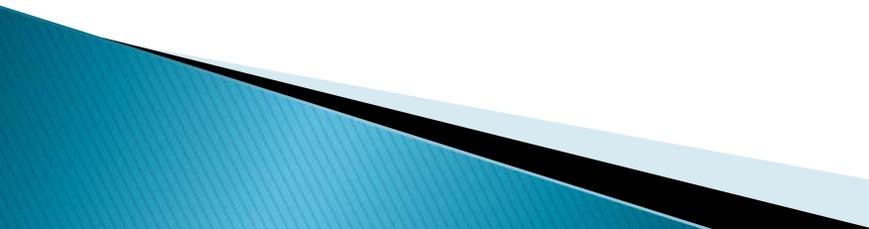


# Next Steps

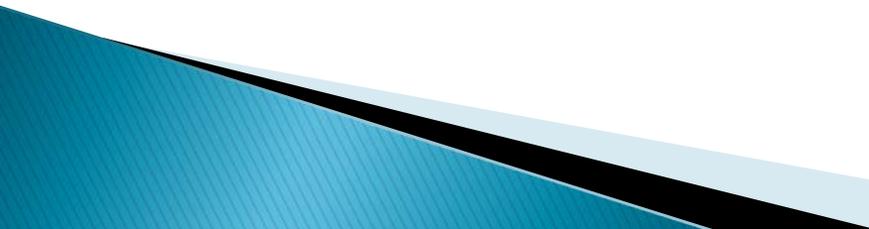
- ▶ At the second training, the “answers” or actual requirements for each of the hazards will be provided.
  - What is the relevant standard or guideline?
  - What are the training requirements?
  - What are the required procedures?
  - What are the required controls?



# Gap Analysis

- ▶ Health and safety committees will conduct a “gap analysis.” That is a comparison of what is current in place versus what is required by the relevant health and safety standard. This will be done separately for each hazard.
  - ▶ A concise summary of the gap analysis will be provided in each of the health and safety system areas, and the reason if known.
- 

# Health and Safety Committee Deliverables

- ▶ Committee Information Sheet
  - ▶ Hazards List – Yes/No for applicability
  - ▶ Completed Hazard Assessment Questionnaires for all applicable hazards
  - ▶ Completed “Gap Analysis” Summary Sheet
- 

# Next Steps

- ▶ The health and safety committee results will be forwarded to:
  - each cabinet level Secretary for their agencies,
  - the Employee Safety and Health Advisory Committee (established under the executive order).



# Next Steps

- ▶ Following cycles: committees can be provided with assessment tools for additional hazards, or can employ another risk assessment method.



# Assistance

- ▶ DOS will:
  - Provide telephone or e-mail assistance at any time.
- ▶ Based on staff availability, DOS will:
  - Sit in on health and safety committee meetings.
  - Assist with on-site assessments.
- ▶ Contact:
  - Hilary Hackbart
  - [hilary.hackbart@state.ma.us](mailto:hilary.hackbart@state.ma.us),
  - 617-969-7177, ext. 333.

# Web Resources

Massachusetts Division of Occupational Safety

- ▶ [www.mass.gov/dos](http://www.mass.gov/dos)

U.S. Occupational Safety and Health Administration

- ▶ [www.osha.gov](http://www.osha.gov)

National Institutes of Occupational Safety & Health

- ▶ [www.cdc.gov/niosh](http://www.cdc.gov/niosh)

Manual on Uniform Traffic Control Devices

- ▶ <http://mutcd.fhwa.dot.gov/>