Public Employees Occupational Safety and Health

Eric Weren
Research Scientist II
General Telephone:
609-984-1863
Direct Dial Telephone
609-984-6556
Inspections FFY 09 - 12

- 67 FDs inspected
- 34 cited (~1/2)
- 197 violations (<6/FD)
Firefighting Related

- 35% Respiratory Protection
- 31% Bloodborne Pathogens
- 10% Hazwoper
Firehouse Related

- 10 % Asbestos & Lead
- 7 % Recordkeeping
- 6 % Indoor Air Quality
- 2 % Sanitation
- 1 % HazCom Training
FF Respiratory Protection

29 CFR 1910.134
Revised standard
November 22, 2006
Respiratory Protection

Citations (66):

- 29 %  Inspection of Respirator
- 23 %  Medical Evaluation
- 21 %  Fit Testing
- 20 %  Written Program
-  8 %  Training
Whenever:

- Respirators are necessary for Health & Safety
- Required by the employer.
- Parts are required for voluntary use.
Program Elements
29 CFR 1910.134(c)(1)

- Hazard Evaluation
- Medical evaluation
- Training
  - Worksite hazards
  - Respiratory protection
- Respirator(s) selection
- Fit testing

* Evaluate program annually
Respiratory Protection

Program Administrator

- Arrange for medical clearance
- Coordinate fit-testing
- Coordinate respirator training
- Monitor respirator use, maintenance, storage and disposal
- Maintain records
Identify Hazards

- Define response roles/activities
- Identify hazards for each
- Select the appropriate respirator(s)
Required for fire fighting
Not allowed for fire fighting **including overhaul**
May be used in low hazard non-fire operations
RPP must identify when appropriate
Medical Evaluation

29 CFR 1910.134(e)

- Employee must be medically cleared
- No cost to employee
- Convenient Time and Place
- Confidential
- before fit testing
Medical Evaluation

- Performed by a Physician or Licensed Healthcare Professional (PLHCP)
- Questionnaire in Appendix A
- PLHCP knows respirator & conditions
- Has copy of the standard
Medical Evaluation

Additional Medical Evaluations based on:

- Employee reports medical problems or changes
- Significant physical changes
- PLHCP, supervisor, or program administrator determination
- Program requirements/policy
- Change in worksite conditions
Quantitative Fit Test (QNFT)

An assessment of the respirator fit by numerically measuring the amount of leakage into the respirator.
Qualitative Fit Test (QLFT)

- Pass/fail fit test
- The individual must respond to test agent.
Facepiece Seal Protection

- NO Facial hair
- Other conditions
- Corrective glasses
- Other PPE
**Maintenance and Care**

- Clean, sanitary and in good working order
- Inspect condition
  - Before and after each use
  - Monthly for emergency respirators
- Appendix B-2 or manufacturer’s Procedures
- Clean and disinfect:
  - After each use
  - Manufacturer instructions
Training and Information

Employers must provide **effective** training **ANNUALLY**.
Training and Information

Employees will demonstrate knowledge of:

- Why the respirator is necessary
- How improper fit, use, or maintenance can compromise protection
- Limitations and capabilities of the respirator
- General requirements of this standard
Training and Information

Employees will demonstrate knowledge of:

- Use in emergency situations
- Inspection of the respirator
- Don, doff, seal check, and use
- Maintenance and storage
- Medical signs and symptoms
Recordkeeping

- Current written program
- Medical evaluation (@PLHCP)
- Medical clearance determination form
- Current fit tests
- Inspection, maintenance and repair
- Training records
- Available to employees and PEOSH
Voluntary Respirator Use

29 CFR 1910.134(c)(2)

Employer may allow respirator use if:

- Respiratory protection is NOT required
- Use will not create a hazard
- Employer provides information contained in Appendix D.
Questions?
Call PEOSH
609-984-1863
Citations (58):

- 34% Exposure Control Plan
- 41% Hep B Vaccination
- 17% Training
- 7% Access to hand cleanser
Written Exposure Control Plan

- Exposure determination
- Job classifications at risk
- Risks by tasks
- Methods of compliance
  - How employees will be protected
  - How employees will be trained
  - Procedure if an exposure occurs
- REVIEW & UPDATE ANNUALLY
Exposure Determination

The employer must:

- Identify worker exposures
- Review all processes and procedures
- Re-evaluate when new processes or procedures are implemented
Methods of Compliance

- Universal Precautions
- Engineering Controls
- Work Practice Controls
- Personal protective equipment
- Housekeeping
Work Practice Controls

Hepatitis B Vaccine

- Employers are required to offer the vaccine
- Vaccine must be offered after training
- Within 10 working days of initial assignment
- Employee can refuse vaccine (Letter)
- Document
Post-exposure Evaluation & Follow-up

What to do after an exposure incident

- Wash hands or affected area
- Notify designated contact person who documents the exposure incident
- Baseline blood-testing-source (with their permission) and employee
Post-exposure Evaluation & Follow-up

Medical evaluation and treatment

✓ Post-exposure prophylaxis

✓ Counseling and evaluation

✓ Employer must provide all pertinent information
Post-exposure Evaluation & Follow-up

- Health care professional provides written opinion
- Employee must be informed of the results
- Employer and employee must receive a copy of the opinion within 15 working days
- Specific recordkeeping requirements
Labels & Signs

Likely would be taken care of by EMS.
Training & Information

- 29CFR1910.1030
- Main diseases
- ECP
  - Recognition of activities with risk
  - Exposure Controls
  - Vaccination
  - Post-exposure Eval. & follow up
Recordkeeping:

Medical records-
- Vaccination status
- Exposure incidents
- Related medical exams, tests & follow up

Training records
- Attendance
- Content & trainer
Questions?
Call PEOSH
609-984-1863
Level of training depends on response

Need to have copy & understand local EOP

May need to know Emergency Operation Plan (EOP) of Treatment Storage Disposal (TSD) company or site if expected to respond in emergency
Hazwoper - Operations

- Part of initial response
- Protect persons, property & environment
- Keep a safe distance
- Respond defensively to contain the release
- Mitigate spreading & Prevent exposures
- 24 hours of training
Hazwoper - Technician

- Respond to releases or potential releases
- Approach the point of release
- Plug, patch or stop the release
- 24 hours of training w/additional competencies
Hazwoper - Specialist

- Support hazardous materials technicians
- Duties parallel those of technician
- More directed or specific knowledge of the hazards
Hazwoper - Training

annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency at least yearly.
Hazwoper

Members of a HAZMAT team shall:

✓ Receive a baseline physical examination

✓ Be provided with medical surveillance as required in 29 CFR 1910.120 (f)*

*(“made available”, member can decline)
ASBESTOS Regulations

Eric Weren, MSIH
Research Scientist II
DOH - PEOSH
609-984-6556
ASBESTOS

- Common in many building materials
- Banned in 1980
- Not required to remove Asbestos
- Prepare an Asbestos Management Plan (AMP)
Asbestos Containing Materials (ACM) are not harmful unless releasing fibers. Breathing ACM fibers is the main hazard. Fibers get in the deep lungs, or digestive tract.
Asbestos is most hazardous when it is **friable**.

Sprayed on ACM insulation is friable.

**Intact** ACM floor tile is **not** friable.
Management Plan

- ACM Inventory
- Include location & condition (fri or non)
- Update as needed
- Re-inspect every 5 yr.
- Signs @ all mechanical rooms Id material, location & safe work practices
- Signs at all regulated areas (renovation)
Management Plan

Identify person who is responsible for:

- Risk communication, training & abatement
- Coordination, approval, scheduling & inspection of ACM removal activities
- Administration of the Asbestos Management Plan and coordination of all asbestos activities
- Oversight of asbestos abatement contractors
Asbestos Standards


• Emergency repairs involving disturbance or removal may be Class 3
  • Trained/licensed person to perform
  • “Competent person” to oversee
  • May require monitoring, etc.
Housekeeping

Do not sand or dry buff. Use wet stripping methods.
Use low abrasion pads at speeds below 300 rpm.
Burnish or dry buff only if finish remains.
ASBESTOS
CANCER AND LUNG
DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY

CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
Asbestos Spills

Staff should report damaged ACM to Management Plan Administrator immediately.

Do not attempt to clean up spills Unless trained and certified!
Abatement or Removal Activities

- If lead present assume overexposure
- Identify tasks and prescribe protection
- Sample to determine exposure
- Engineering controls & PPE as appropriate
- Establish a written program for each job
Lead

1 Citation accumulation on surfaces

- Clean up chips, dust, etc.
- Do not attempt to remove
Asbestos & Lead

Questions?

Call PEOSH

609-984-1863

NJ Health
New Jersey Department of Health
Recordkeeping
29 CFR 1904

- Maintain the PEOSH 300 Accident Logs
- Post the PEOSH 300A Summary
  - February 1- April 30
  - PEOSH CSHO will request copies
PEOSH Indoor Air Quality Standard
N.J.A.C. 12:100-13

- Adopted in 1998 First IAQ Standard in U.S.
- Revised May 21, 2007 by PEOSH Advisory Board, IAQ Subcommittee

1. Designated Person
2. Written IAQ Program
3. 48 hrs to remove damp materials
Most common IAQ complaint: Mold (3)

- Roof leaks
- Seepage / dampness from ground water
- Plumbing leaks
- Air Conditioner duct condensation
Indoor Air Quality Standard

Other complaints: Renovations

- Chemical exposure
- Construction zone not isolated
- Occupants not given 24 hour notice
Indoor Air Quality Standard

Most common citations: documentation

- Preventive Maintenance Plan
- Maintenance Log
- Written IAQ program updated annually
IAQ Basics

• Problems occur in many types of buildings
• Problems reflect both comfort and health
• Primary sources of IAQ problems include:
  – Ventilation
  – Contaminants generated indoors
  – Infiltration of outdoor contaminants
  – Unidentified sources
PEOSH IAQ Standard
N.J.A.C. 12:100-13.3

Compliance Program

Employer shall identify and train a Designated Person: person given responsibility [and authority] by the employer to take measures to assure compliance” (4 citations)

- Prepare written plan (4 citations)
- Review and update written plan annually
Establish a preventative maintenance schedule

Ensure inoperable components are replaced or repaired promptly

Ensure no microbial growth

Implement general or local exhaust ventilation
PEOSH IAQ Standard
N.J.A.C. 12:100-13.3

- Check the HVAC system when:
  - Carbon Dioxide (CO2) levels >1,000 ppm
  - Temperature is <68°F->79°F

- Prevent contamination of fresh air supply

- Check natural ventilation portals are maintained

- Promptly investigate all employee IAQ complaints
Controls of Specific Contaminant Sources

- If General Ventilation inadequate, implement other control measures
- Microbial Contaminants

  • Promptly repair water intrusion
  • Remediate damp/wet material by drying or removal within 48hrs of discovery
  • Remove visible microbial contamination
PEOSH IAQ Standard
N.J.A.C. 12:100-13.5

Renovation and Remodeling

- Evaluate chemical hazards prior to selection or use.
- Isolate construction areas (scheduling, physical barriers, pressure differentials)
- Utilize local exhaust ventilation
- Notify employees 24 hours prior to any construction
- Construction areas must be cleaned and aired out prior to re-occupancy
PEOSH IAQ Standard
N.J.A.C. 12:100-13.6

Recordkeeping

- Written IAQ Program
- Documentation of Designated Person Training
- Written Preventive Maintenance Program
- Maintenance Log (Date, What, Who)
IAQ Employee Complaints

• Follow Up on Employees Complaints
  – Go to the location(s) of the complaint
  – Conduct interviews
  – Review building operations and maintenance
  – Complete PEOSH IAQ Inspection Checklist
  – Involve employees through L/MH&SC*
  – Communicate outcome and corrective action
  – Report all complaints to one person

*Labor-Management Health & Safety Committee
Employer’s Response to Complaint

1. PEOSH will send a letter for response:

2. Employer required to post the letter.

3. Employer must respond to complaint:
   1. What is the situation?
   2. What are they doing to fix the problem?

4. Complainant copied on letter & response

5. If complainant not satisfied, we inspect.
Hazard Communication

Past

Present & Predictions
RTK

- Central File
  - Hazardous Substance List
  - Survey of products & Ingredients
  - MSDS & HSFS
- Universal Label
- Training (superceded)

HazCom

- HazCom File
  - Hazard Determination
  - Inventory of hazardous products
  - MSDSs
- Labeling - OSHA
- Training
PEOSH HCS TRAINING

INITIAL TRAINING:
• Prior to assignment or reassignment
• Prior to introduction of new hazard

REFRESHER TRAINING:
• Every two years

Trainer must be “Technically Qualified”
At no cost to employee & during work hours
RTK

- Central File
  - Hazardous Substance List
  - Survey of products & Ingredients
  - SDS & HSFS

- Universal Label
- Training (superceded)

HazCom-GHS

- HazCom File
  - GHS Hazard Determination
  - Inventory of hazardous products
  - SDSs

- Labeling - GHS
- Training
The
Globally Harmonized System of
Classification and Labeling
Chemicals
Globally Harmonized System

- SDS - 16 section ANSI version
- Label - GHS pictograms, signal words and standardized hazard warnings
- Minor classification changes to many health & physical hazards

http://www.osha.gov/dsg/hazcom/index2.html
GHS Requirements

Defined criteria to assign a hazard classification

- Physical Hazards - 16 categories
- Health Hazards - 10 categories
- Environmental Hazards

Classification guidance for mixtures of chemicals
GHS Physical Hazards

- Explosives
- Flammable Gases
- Flammable Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Heating Substances
- Self- Reactive Substances

- Pyrophoric Liquids
- Pyrophoric Solids
- Substances which react with water and emit flammable gases
- Oxidizing Liquids
- Oxidizing Solids
- Organics Peroxides
- Corrosive to Metals
GHS Health Hazards

- Acute Toxicity
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Respiratory or Skin Sensitization

- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive Toxicology
- Target Organ Toxicity
  - Single Exposure
  - Repeated Exposure
- Aspiration Toxicity
GHS Environmental Hazards

Hazardous to Aquatic Environments

- Acute aquatic toxicity
- Chronic aquatic toxicity
  - Bioaccumulation potential
  - Rapid degradability
GHS Safety Data Sheet

Identity

1. Product and Company Identification
2. Hazard Identification
3. Composition / Information On Ingredients
GHS Safety Data Sheet

Emergency Information

4. First Aid Measures
5. Fire Fighting Measures
6. Accidental Release Measures
GHS Safety Data Sheet

Safe Use & Physical Properties

7. Handling and Storage
8. Exposure Control / Personal Protection
9. Physical and Chemical Properties
10. Stability and Reactivity
GHS Safety Data Sheet

Information for Professionals

11. Toxicological Information
12. Ecological Information
13. Disposal Considerations
14. Transport Information
15. Regulatory Information
16. Other Information
OSHA vs GHS Labels

- HCS - performance-oriented
- GHS – specific requirements for use of:
  - pictograms,
  - signal words (Danger, Warning)
  - standardized hazard statements
- GHS also has suggested precautionary statements (in process)
GHS Pictograms & Hazard Classes

- Explosives
  - Self-reactives
  - Organic peroxides

- Flammables
  - Self-reactives
  - Pyrophorics
  - Self-heating
  - Emits flammable gas

- Gases under pressure

- Oxidizers
  - Organic peroxides

- Acute toxicity

- Carcinogens
  - Respiratory sensitizers
  - Reproductive toxicity
  - Target organ toxicity
  - Germ cell mutagens

- Eye corrosion
  - Skin corrosion
  - Corrosive to metal

- Skin irritation
  - Eye irritation
  - Skin sensitizers

- Corrosive to metal

- Aquatic toxicity
# GHS Hazard Communication

## GHS Label Elements for Flammable Liquids

<table>
<thead>
<tr>
<th>Table 3: GHS Label Elements for Flammable (and Combustible) Liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td><strong>Symbol</strong></td>
</tr>
<tr>
<td><strong>Signal Word</strong></td>
</tr>
<tr>
<td><strong>Hazard Statement</strong></td>
</tr>
</tbody>
</table>
My Product

Warning!
Cause Skin And Eye Irritation
Suspected of causing cancer by inhalation
Contains: XYZ

Do not breathe vapors or mist. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling

FIRST AID
EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
SKIN: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists.

Company name, Address, Phone number
HazCom Administrators

- Become familiar with new classifications
- Modify training program
- Train on incoming GHS labels and SDS
- Collect new SDSs
- Adjust internal workplace labeling
The following are not affected:

- written Hazard Communication Program,
- inventories of hazardous products
- training
- Permissible Exposure Limits (PELs)
• PEOSH must adopt OSHA HazCom

• May modify NJAC 12-100-7.8 to keep:
  – Technically Qualified trainer
  – Refresher every 2 years
Guidance to the GHS

OSHA’s web page.

A guide to the GHS
http://www.osha.gov/dsg/hazcom/ghs.html

Compares GHS and HCS in detail
http://www.osha.gov/dsg/hazcom/ghoshacomparsion.html

FAQs
Training: Dec. 1 2013
SDS & Label: June 1, 2015*
Workplace Labeling: June 1, 2016
Additional training: June 1, 2016

* All shipments must have GHS Label
Questions?
Call PEOSH
609-984-1863