



Fire Service PEOSH Update



Public Employees Occupational Safety and Health



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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

Written Respiratory Protection Program



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
 - Proper use
 - Clean, maintain, repair & store

* 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

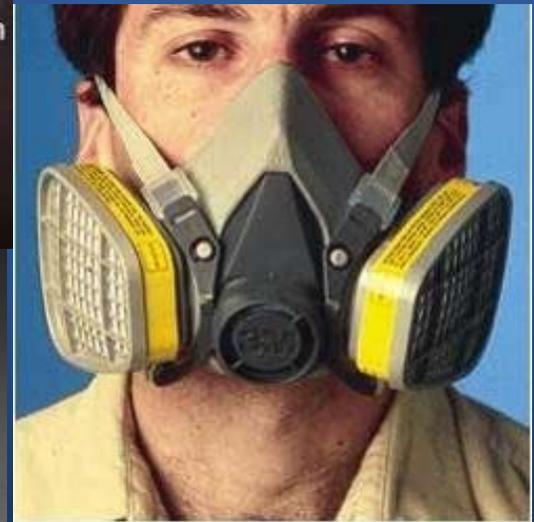


- Define response roles/activities
- Identify hazards for each
- Select the appropriate respirator(s)

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:

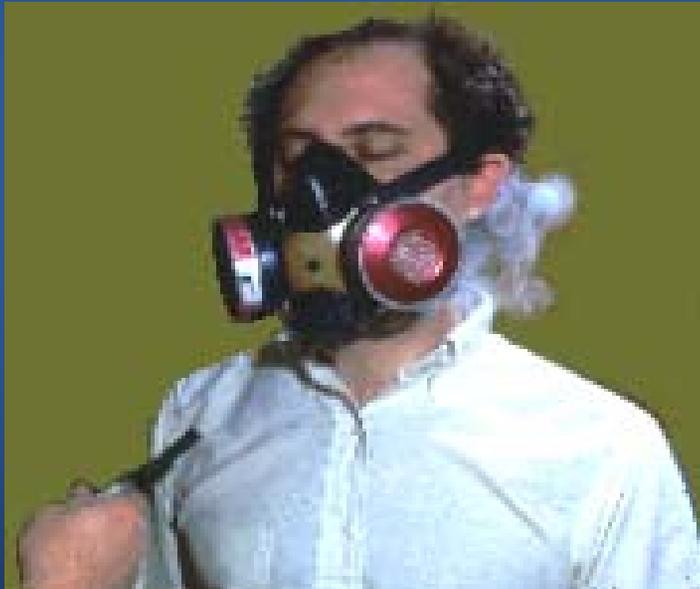
- Employee reports medical problems or changes
- Significant physical changes
- PLHCP, supervisor, or program administrator determination
- Program requirements/policy
- Change in worksite conditions

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.

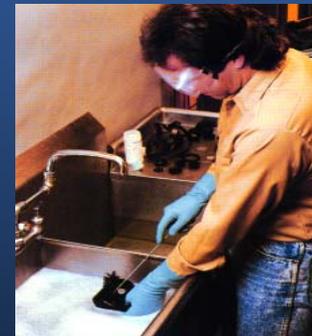
Facepiece Seal Protection



- * 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 to demonstrate knowledge of:

- Use in emergency situations
- Inspection of then 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



Bloodborne Pathogens

Citations (58):

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

BloodBorne Pathogens

29 CFR1910.1030

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



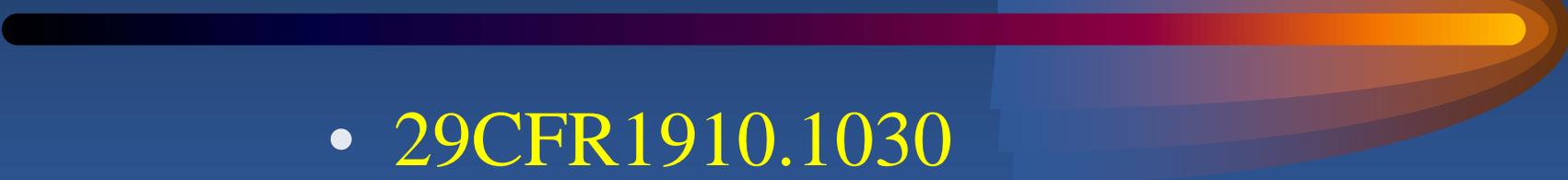
- ✓ Health care professional provides written opinion
- ✓ Employee must be informed of the results
- ✓ Employer and employee must receive a copy of the opinion within 15 working days
- ✓ Specific recordkeeping requirements

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:

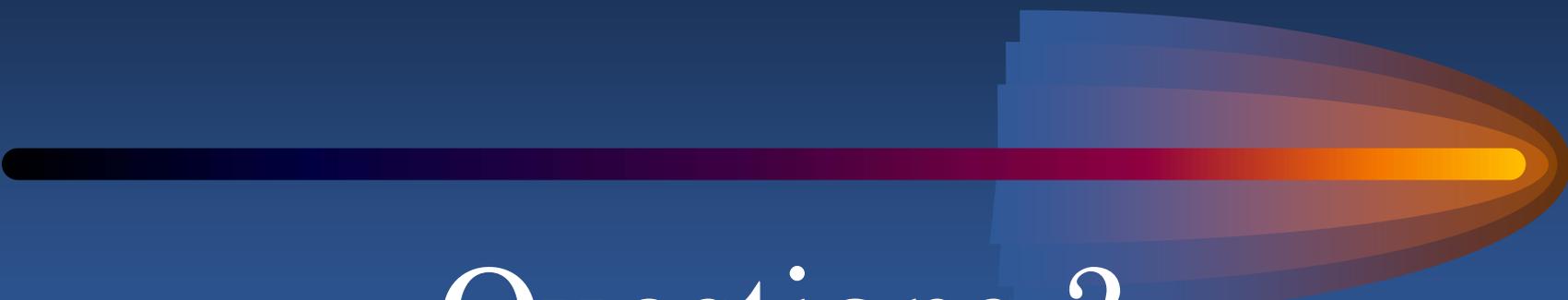


Medical records-

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

Training records

- Attendance
- Content & trainer



Questions ?
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HAZWOPER

29CFR1910.120

- 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



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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

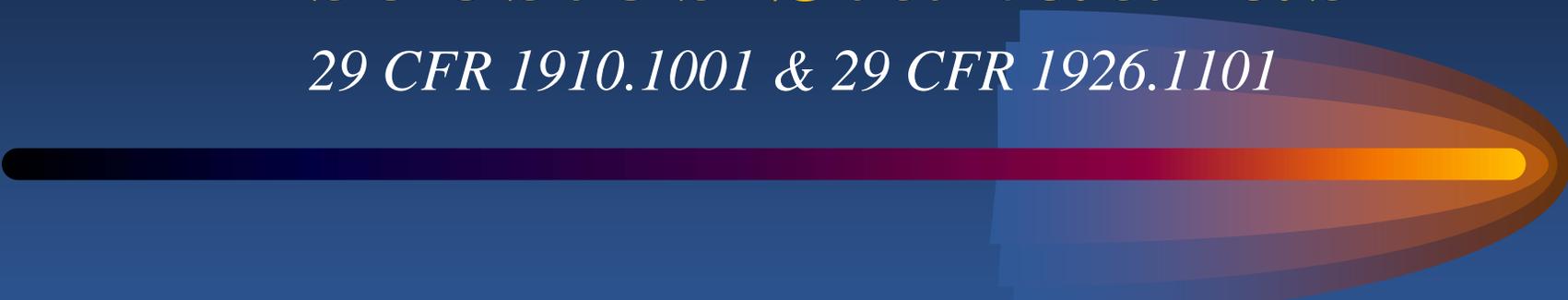


Identify person who is responsible for:

- 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

29 CFR 1910.1001 & 29 CFR 1926.1101



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

Housekeeping

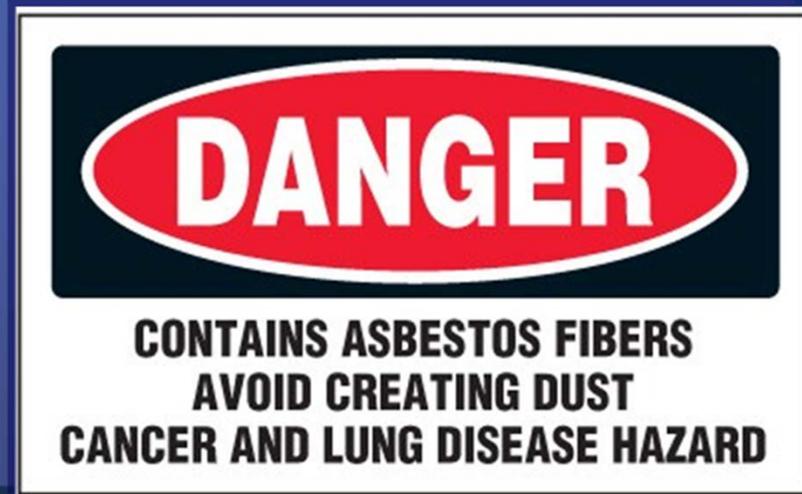
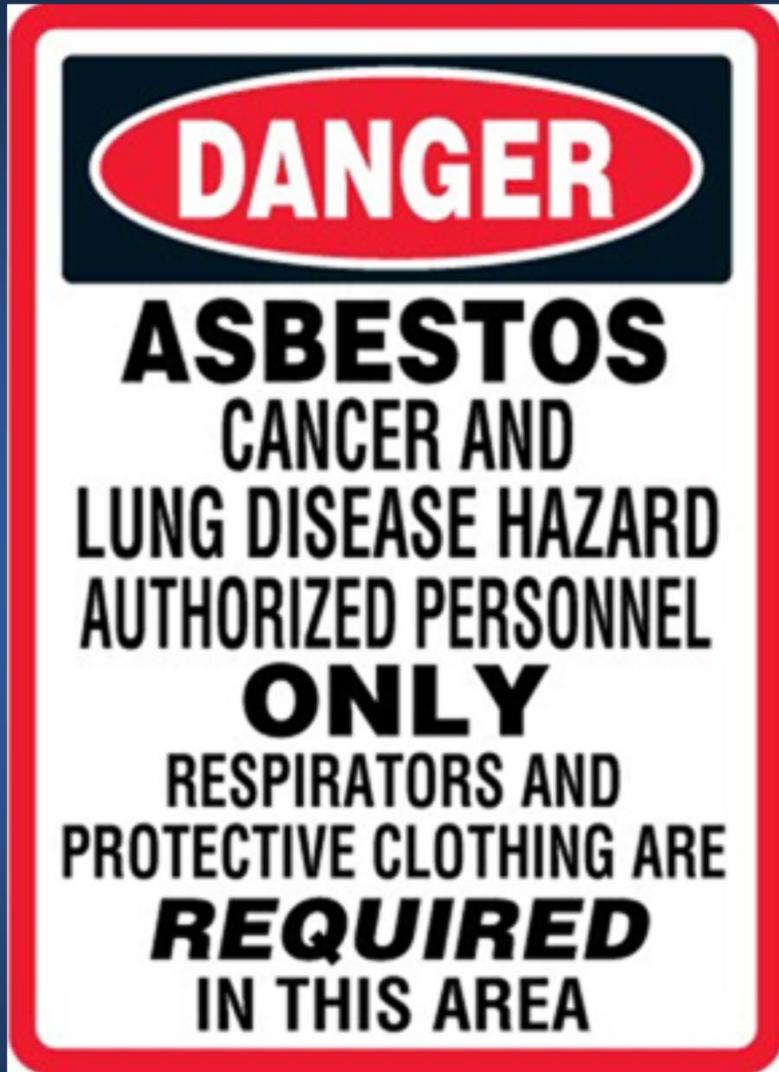


Do not sand or dry buff

Use wet stripping methods.

Use low abrasion pads at speeds below 300 rpm.

Burnish or dry buff only if finish remains.



Asbestos Spills



Staff should report damaged ACM to
Management Plan Administrator
immediately.

Do not attempt to clean up spills
Unless trained and certified!

Lead Standard

29 CFR 1910.1025 & 29 CFR 1926.62

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 ?

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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



Indoor Air Quality Standard



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

PEOSH IAQ Standard

N.J.A.C. 12:100-13.3

- 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

PEOSH IAQ Standard

N.J.A.C. 12:100-13.4

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

PEOSH IAQ Standard

N.J.A.C. 12:100-13.7

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

HazCom

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

- **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

HazCom-GHS

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

- **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



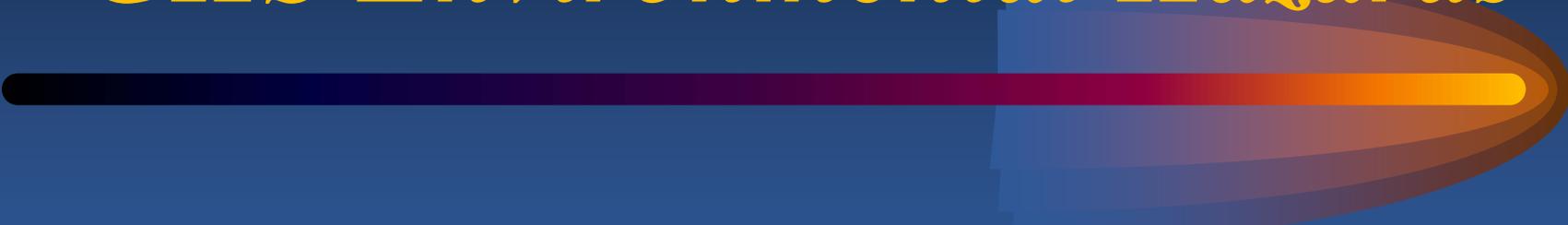
- Explosives
- Flammable Gases
- Flammable Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Heating Substances
- Self-Reactive Substances
- Pyrophoric Liquids
- Pyrophoric Solids
- Substances which react with water and emit flammable gases
- Oxidizing Liquids
- Oxidizing Solids
- Organic 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



- Oxidizers
- Organic peroxides



- Gases under pressure



- Acute toxicity



- Acute toxicity
- Skin irritation
- Eye irritation
- Skin sensitizers



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



- Eye corrosion
- Skin corrosion
- Corrosive to metal



- Aquatic toxicity

GHS Hazard Communication

GHS Label Elements for Flammable Liquids

Table 3: GHS Label Elements for Flammable (and Combustible) Liquids

	Category 1	Category 2	Category 3	Category 4
Symbol				No symbol
Signal Word	Danger	Danger	Warning	Warning
Hazard Statement	Extremely flammable liquid and vapor	Highly flammable liquid and vapor	Flammable liquid and vapor	Combustible liquid

GHS Label

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

OSHA's HazCom



The following are not affected:

- written Hazard Communication Program,
- inventories of hazardous products
- training
- Permissible Exposure Limits (PELs)

PEOSH - RTK



- 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/ghoshacomparison.html>

FAQs

<http://www.osha.gov/as/opa/facts-hcs-ghs.html>

Timeline



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 PEOOSH

609-984-1863