

---

# Safety in Solid Waste and Recycling Facilities

---

Sue Gau

Sr. Environmental Manager

Chief Liquid Waste, Inc.

[sue@chiefindustrialservices.com](mailto:sue@chiefindustrialservices.com)

(920)582-7596

---

# Safety in Solid Waste and Recycling Facilities

- Personal Protective Equipment
  - First Aid-Eye Wash
  - Fire Extinguishers
  - HAZWOPER
  - Combustible Dust – Latest Developments
  - Other OSHA issues to watch
-

---

# Personal Protective Equipment

## 29 CFR 1910.132

- Employer must
    - Assess the workplace to determine if hazards are present which necessitate the use of personal protective equipment (PPE).
    - Select and have employees use the proper PPE.
    - Train employees about PPE requirements - verify training through a written certification that contains name of employee, date of training and the subject of the training.
-

---

# Personal Protective Equipment

## 29 CFR 1910.132

- Payment for PPE
    - Employer must provide all required PPE at no cost to the employee.
    - Employer not required to pay for:
      - Safety toe protective footwear or non-specialty prescription safety eyewear, if the employer permits them to be worn off the job-site.
      - Logging boots
      - Everyday clothing
      - Products used solely for protection from weather
-

# Personal Protective Equipment

## 29 CFR 1910.132

- Employer must pay for replacement PPE except when the employee has lost or intentionally damaged the PPE
- If an employee chooses to provide own PPE, the employer does not have to reimburse the employee. However, the employer is responsible to assure it is adequate.



I knew hearing protection would come  
in handy some day.

---

# Personal Protective Equipment

- Specific regulations
    - 1910.132 - PPE General Requirements
    - 1910.133 - Eye and Face Protection
    - 1910.134 – Respiratory Protection
    - 1910.135 – Head Protection
    - 1910.136 – Foot Protection
    - 1910.137 – Electrical Protection
    - 1910.138 – Hand Protection
    - Appendix A – Reference for Further Information
    - Appendix B – Non-mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection
-

---

# First Aid

## 29 CFR 1910.151

- Ensure the ready availability of medical personnel
  - If there is no infirmary, clinic, or hospital in near proximity to the workplace, an employee or employees shall be trained to perform first aid. First aid supplies shall be available.
  - Where the eyes or body of any person may be exposed to corrosive materials, facilities suitable for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
-

---

# First Aid

## 29 CFR 1910.151

It is the employers responsibility to determine their requirements for medical and first aid services. However, OSHA can inspect the employer's plan to determine if it is adequate.



---

# First Aid

## 29 CFR 1910.151

- Factors to consider when evaluating the workplace for medical and first aid requirements
    - ❑ Location of medical and emergency services
    - ❑ Estimated response time for emergency services
    - ❑ Types of accidents that may occur
    - ❑ Number of employees and locations of employees
    - ❑ Types of materials used
    - ❑ Are there any industry specific requirements?
    - ❑ Types of first aid supplies needed
-

---

# First Aid

## 29 CFR 1910.151

First aid trained employees are also covered by the Bloodborne Pathogen standard (29 CFR 1910.1030).

---

---

# First Aid

## 29 CFR 1910.151

- Emergency eye wash/shower station requirements
    - Where the body or eyes may be exposed to corrosive materials
    - Specifically required in other regulations
      - Dipping/coating operations
      - Pulp, paper and paperboard mills
      - Formaldehyde
      - Carcinogens
-

---

# First Aid

## 29 CFR 1910.151

- Should be installed and maintained in accordance with manufacturer's recommendations.
  - Eyewashes should be located as close as possible to the hazard and on the same level
  - ANSI – eyewash and shower should be no more than 10 second travel time from hazard
  - Where possible there should be large quantities of clean water available (minimum of 15 minutes)
  - Portable eye wash – contain a minimum of 1 gallon of water
-

---

# Portable Fire Extinguishers

## 29 CFR 1910.157

- Apply to the placement, use, maintenance and testing of portable fire extinguishers.
  - Certain exemptions may apply:
    - Written fire safety policy requires total evacuation of employees and fire extinguishers are not provided
    - Emergency action plan designated only certain employees to use portable fire extinguishers, and all other employees evacuate.
-

# Portable Fire Extinguishers

## 29 CFR 1910.157

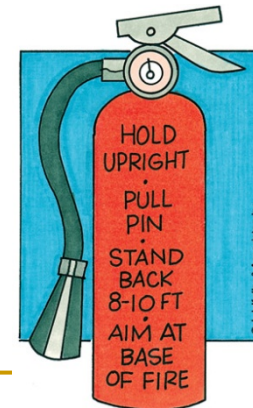
- Fire extinguishers need to be mounted and identified so they are readily accessible to employees
- Must be fully charged and operable and kept in designated places
- Fire extinguishers shall be selected based on the classes, sizes and degree of potential fires
- Annual maintenance - recorded



# Portable Fire Extinguishers

## 29 CFR 1910.157

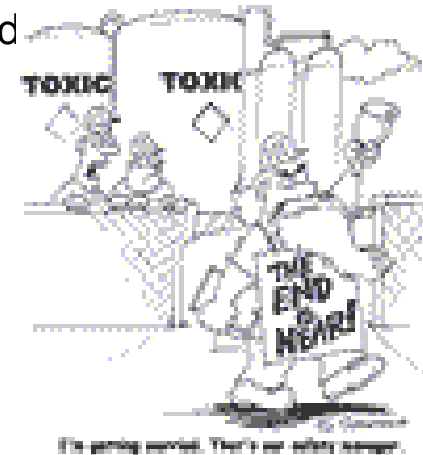
- Training Requirements
  - If an employer provides portable fire extinguishers for employee use, the employer shall provide an educational program to include general principles of extinguisher use and the hazards involved
  - Provide training upon initial employment and annually thereafter.



# HAZWOPER

## 40 CFR 1910.120

- **Hazardous Waste Operations and Emergency Response**
- Five groups covered under the HAZWOPER Standard
  - Clean up operations involving hazardous substances that are conducted at uncontrolled hazardous waste sites
  - Corrective actions involving clean up operations at sites covered by RCRA
  - Voluntary clean up operations at sites recognized as uncontrolled hazardous waste sites
  - Operations involving hazardous wastes that are conducted and disposal facilities
  - Emergency response operations



---

# HAZWOPER

## 40 CFR 1910.120

- The standard does not apply if the employer can demonstrate that the operation doesn't involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards
-

---

# HAZWOPER

## 40 CFR 1910.120

### ■ Types of Releases

#### □ Incidental

- Can be absorbed, neutralized or controlled
- Does not pose a significant health or safety hazard
- Will not become an emergency

#### □ Emergency

- Cannot be controlled, neutralized or controlled
  - Poses a health or safety hazard
  - Can become an emergency
-

---

# HAZWOPER

## 40 CFR 1910.120

- Levels of Training – Based upon the employee’s job function and responsibilities
    - General site workers - 40 hours, 3 days field experience
    - Workers on site only occasionally and are unlikely to be exposed - 24 hours, 1 day field experience
    - Workers on a site who work in areas where there are no health hazards or the possibility of an emergency developing - 24 hours, 1 day field experience
    - Management and Supervisors- 40 hours, 3 days field experience and 8 additional hours of training
    - 8 hours of annual refresher training also required to maintain certification
-

# HAZWOPER

## 40 CFR 1910.120

- Written program – requires employer to develop and implement a written program that identifies, evaluates, and controls safety and health hazards and provides emergency response procedures for each hazardous waste site or treatment, storage, and disposal facility.
- Written program needs to include
  - Organizational workplan
  - Site evaluation and control
  - Site-specific program
  - Information and training program
  - Personal protective equipment program
  - Monitoring
  - Medical surveillance program (if required)
  - Decontamination procedures
  - Emergency response program

---

# HAZWOPER

## 40 CFR 1910.120

- Medical Surveillance required for:
    - ❑ Employees exposed or potentially exposed to hazardous substances above the permissible exposure limits for more than 30 days per year, or exposed above the published exposure levels for more than 30 days per year, if there is no permissible exposure limits for the substance.
    - ❑ Workers who wear respirators for 30 or more days per year
    - ❑ Workers who are injured, become ill or develop signs or symptoms due to possible overexposure
    - ❑ Members of hazardous materials (HAZMAT) teams
-

---

# Combustible Dust

March 11, 2008 - Combustible Dust National Emphasis Program

After catastrophic accident involving a combustible dust explosion at a sugar plant, OSHA decided to intensify its focus on this hazard.

---

---

# Combustible Dust

- U.S. Chemical Safety Board 2006 Combustible Dust Study identified 281 dust fires and explosions in the U.S. between 1980 and 2005, killing 119 and injuring 178 workers.
  - Since the study was released, there have been approximately 82 additional dust fires and explosions
-

---

# Combustible Dust

- February 3, 2009
    - WE Energies plant in Oak Creek, Wisconsin
    - Coal dust collection silo
    - Six contract workers were burned
      - Setting up scaffolding in preparation for repairs by another firm on the fire sprinkler system.
      - Four were inside the silo
      - Two were outside the silo
    - OSHA investigating
-

---

# Combustible Dust

- February 6, 2009 – Federal legislation reintroduced to prevent workplace explosions
  - Direct OSHA to issue interim rules on combustible dust within 90 days.
  - Direct OSHA to issue final rules within eighteen months
  - Direct OSHA to revise the Hazard Communication Standard, which warns employees of potential on the job hazards, to include combustible dusts.

<http://edlabor.house.gov/newsroom/2009/02/rep-miller-and-barrow-reintro.shtml>

---

---

# Combustible Dust Types

- Metal dust, such as aluminum or magnesium
  - Wood dust
  - Plastic dust
  - Biosolids
  - Organic dust, such as sugar, paper, soap and dried blood
  - Dust from certain textiles
-

---

# Industries that Handle Combustible Dusts

- Agriculture
  - Food Products
  - Chemicals
  - Textiles
  - Forest and furniture products
  - Metal processing
  - Tire and rubber manufacturing plants
  - Wastewater treatment
  - Metal processing
  - Paper products
  - Pharmaceuticals
  - Coal handling and processing facilities
  - **Recycling Operations (metal, paper, and plastic)**
-

---

# Other OSHA issues to watch

- Possible legislation to expand and simplify the Whistleblower regulations
  - Safety and Health Information Bulletin – Hazards associated with operating skid steer loaders with bypassed and/or improperly maintained safety devices.
  - Changes under President Obama's Administration?
-

---

# Resources

- OSHA - [www.osha.gov](http://www.osha.gov)
  - Wisconsin Safety Council - [www.wisafetycouncil.org](http://www.wisafetycouncil.org)
  - Wisconsin Department of Commerce Public Sector Safety Program - <http://commerce.wi.gov/SB/SB-PublicSectorSafetyProgram.html>
  - NIOSH – National Institute for Occupational Safety and Health - <http://www.cdc.gov/niosh/>
-

---

**QUESTIONS?**

---