Hazard Recognition in Scrap Recycling

Shipping/Receiving and Loading Dock Areas

Susan Harwood Training Grant

SH-05114-SH9

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Learning Objectives

- To be able to identify the potential hazards that may be in your workplace.
- To understand the importance of safe mobile equipment operations.
- To recognize the importance for OSHA in the workplace.
- To understand why good housekeeping in the workplace is important.
- To identify the different types and the need for personal protective equipment (PPE).
- To describe solutions to the various “real-world” hazard recognition scenarios presented to them in a group style project at the end of the class.

Hazard Recognition Quiz

Choose the BEST Answer

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Quiz – Hazard Recognition

Tool box talk and safety meetings are an opportunity for people to learn and share safe practices.

True or False

Quiz – Hazard Recognition

Which of the following is NOT a sign of carbon monoxide poisoning?

A. Headache
B. Nausea
C. Shortness of breath
D. Hunger

Quiz – Hazard Recognition

Doing a 360 degree walk-around of your mobile equipment will help you recognize:

A. If other people are in your operating or working zone
B. If other scrap material is in your way
C. If there is visible damage to the machinery
D. All of the above

Quiz – Hazard Recognition

Fall protection must be in place if a person is working in an area higher than 36 inches.

True or False

Quiz – Hazard Recognition

Good housekeeping practices are a sign of a good safety culture.

True or False

Quiz – Hazard Recognition

A forklift operator should always use their horn when passing through open doorways or around blind corners.

True or False

Quiz – Hazard Recognition

Operating the forklift at safe speeds is necessary because?

A. Pedestrians may be in the area
B. The ground conditions are smooth
C. The brakes may not work
D. Your supervisor makes you

Quiz – Hazard Recognition

Prior to removing a machine guard or safeguarding device, it is important to follow proper lock-out, tag-out, try-out and testing procedures.

True or False

Quiz – Hazard Recognition

When talking about lock out tag out, an "affected" employee is…

A. One who services and maintains the machinery
B. One who creates the lock out tag out procedures
C. One who may work around the machinery
D. One who purchases the locks and tags

Quiz – Hazard Recognition

Recognizing and reporting hazards to the company's management team is an important part of the safety culture?

True or False

Quiz – Hazard Recognition

A job hazard assessment is a step-by-step procedure that helps people recognize which of the following:

A. What tools are needed to complete the job the fastest
B. What the environmental conditions look like at the job site
C. The hazards that may be present during the job task
D. How to do the job within the time frame given

Quiz – Hazard Recognition

It is everyone's job at the workplace to recognize, discuss, and report hazards that may be present?

True or False

OSHA and your rights

OSHA's Whistleblower Protection Program enforces the whistleblower provisions of more than 20 whistleblower statutes protecting employees from retaliation for reporting violations of various workplace safety and health concerns.

https://www.whistleblowers.gov/

OSHA and your rights

In the event of:

- Firing or laying off
- Blacklisting
- Demoting
- Denying overtime or promotion
- Disciplining
- Denial of benefits
- Failure to hire or rehire
- Intimidation/harassment
- Making threats
- Reassignment affecting prospects for promotion
- Reducing pay/hours

You Have Protection

OSHA's Mission

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

Your Rights

The complaint should be filed as soon as possible after noticing the hazard or lack of compliance because OSHA citations may only be issued for violations that currently exist or existed in the past 6 months.

Complaints from workers or their representatives are taken seriously by OSHA. **OSHA will keep your information confidential.**

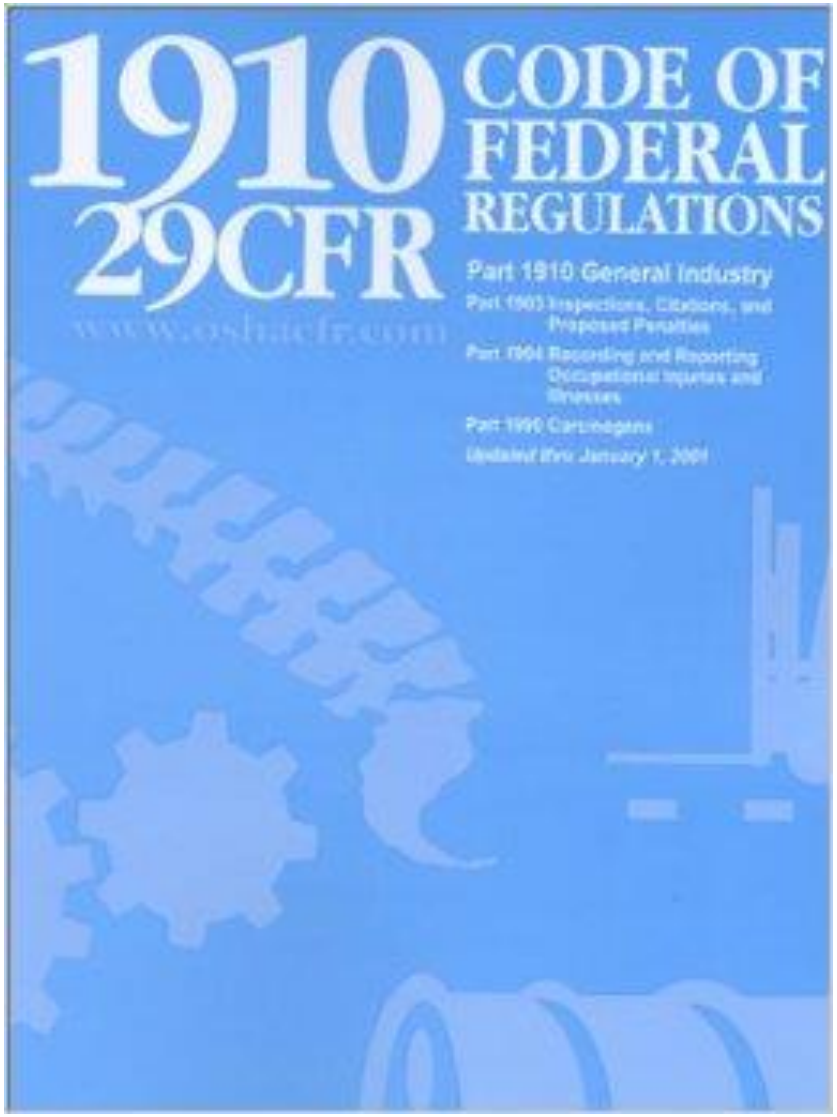
How to file a complaint:

- By phone
- By fax
- Online
- In writing
- In person

<u>It is illegal for your employer to fire you for contacting OSHA</u>

OSHA code of federal regulations

http://www.osha.gov



Inbound Material Inspection and Flow

- Load inspector should be experienced and know the types of hazards possible.
- Always be aware of potential fire hazards.
- Have a communication protocol in place for working with truck drivers, customers, and co-workers.

Do you see any hazards here?

Look for non-conforming loads

Non-conforming loads

CL Incident

- Chlorine tank passes through the inspection process because it was hidden in a load.
- Load gets set off in an area in the yard.
- Material handler operator reaches into load with grapple and punctures a tank releasing CL gas.


CWDOL


WATER


240 VOLTS
120 VOLTS
DANGER


1997


DO NO
USE ON
MAG FIRES

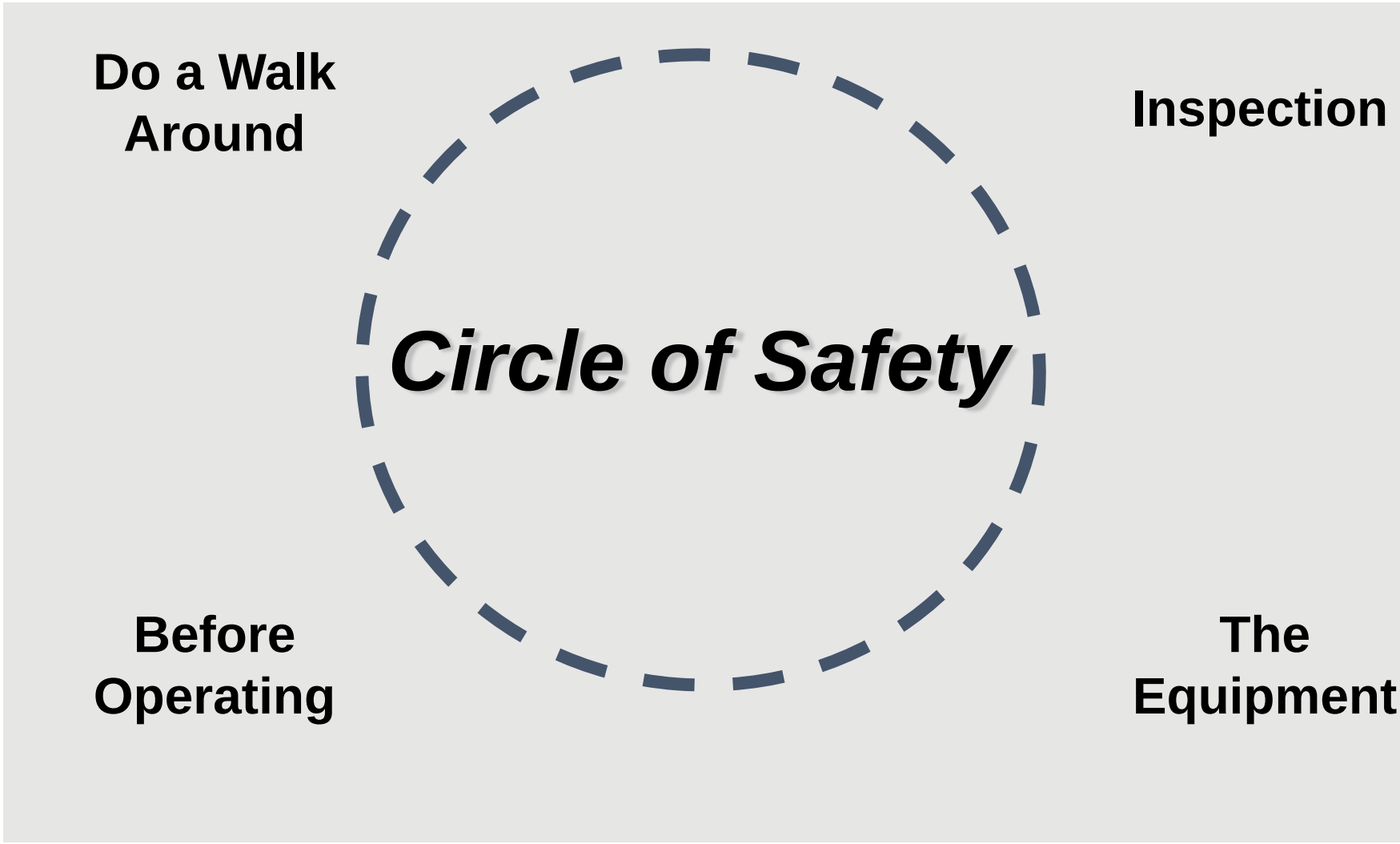

EXIT
3M


FLAM
KEEP

Mobile Equipment Safety

Hazard Recognition

Know your surroundings



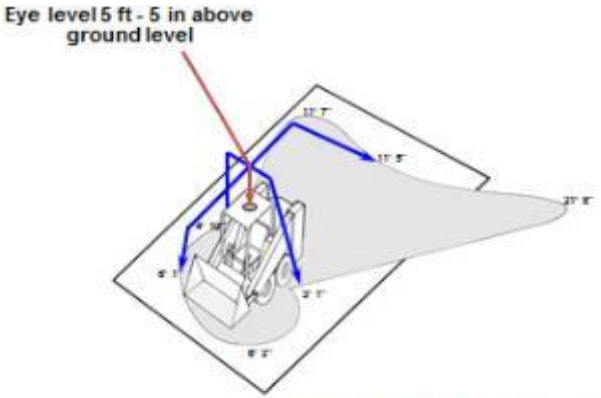
Safety around Mobile Equipment

How do you communicate with the mobile equipment operators in your facility?

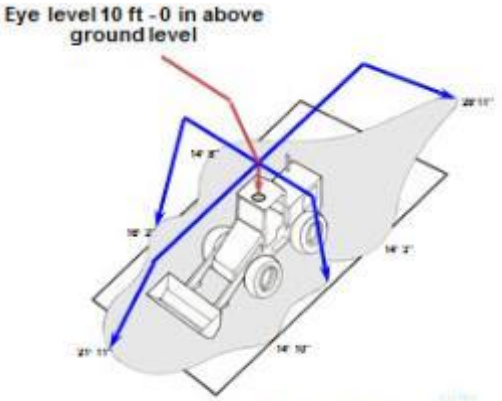
Safety around Mobile Equipment

What is the safe distance to work or walk around mobile equipment at your facility?

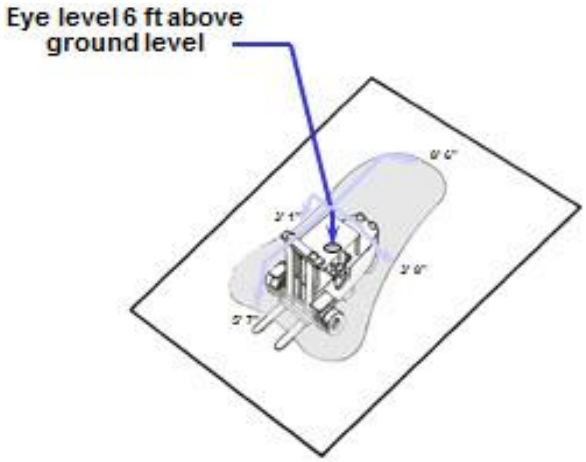
Blind spots



Bobcat/Skid Steer



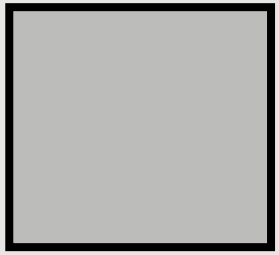
Front End Loader



3 Ton Forklift

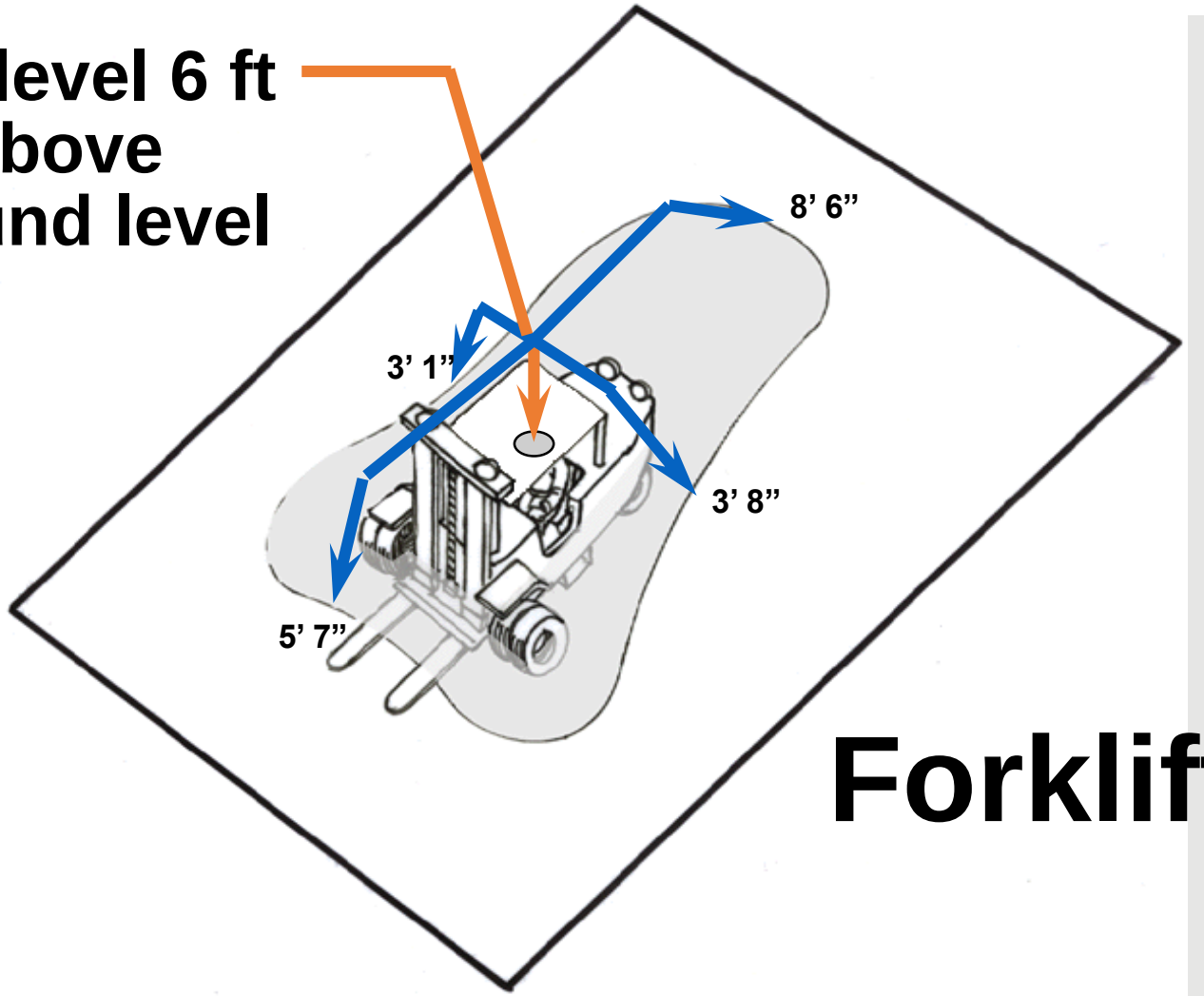
Learn To Know…

The NO-ZONE



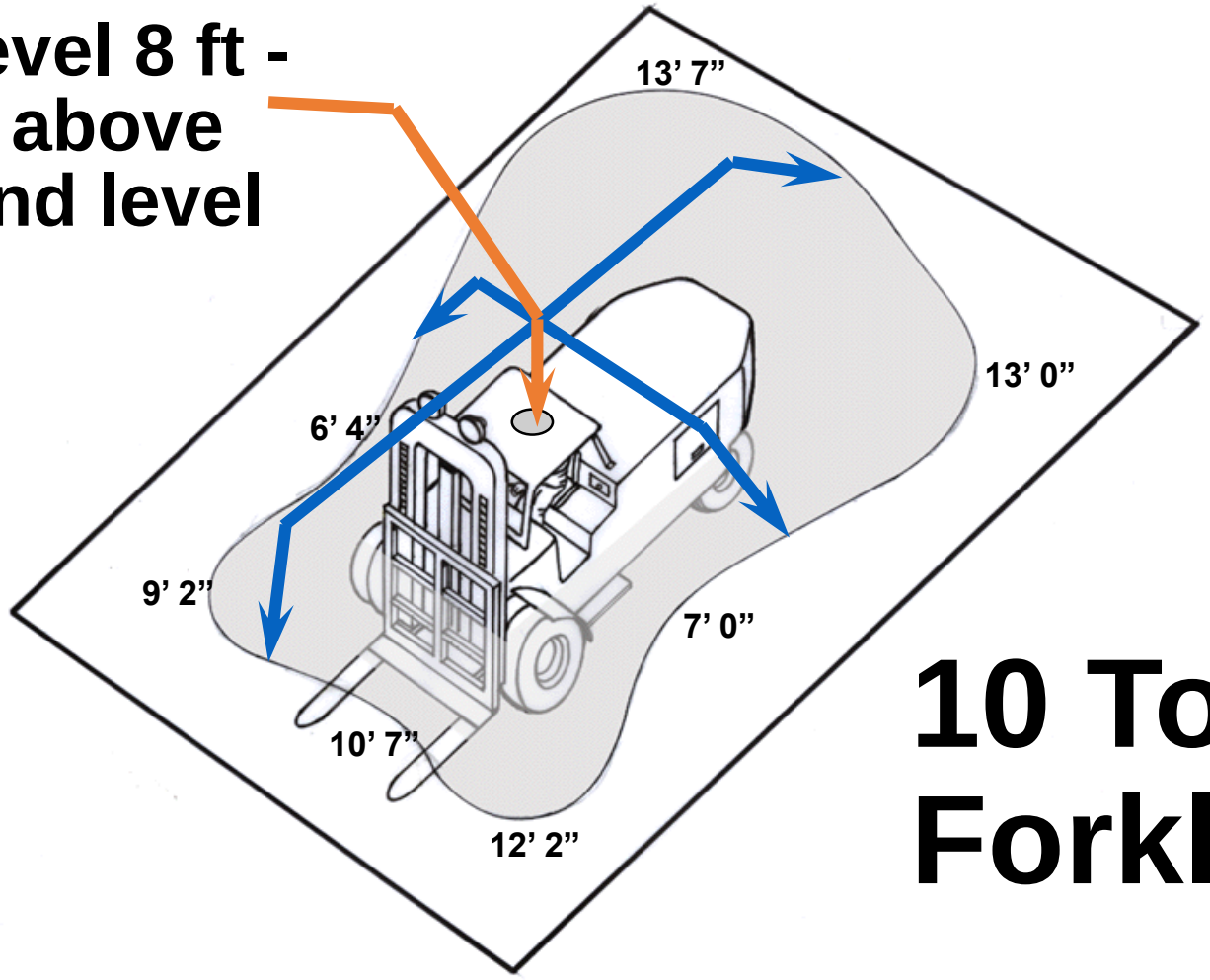
THE SHADED AREA SURROUNDING EACH VEHICLE REPRESENTS THE DANGER ZONE or "NO-ZONE" IN WHICH THE VEHICLE OPERATOR'S VIEW OF PEDESTRAN TRAFFIC IS GREATLY REDUCED OR OBSCURRED ALTOGETHER.

Eye level 6 ft above ground level



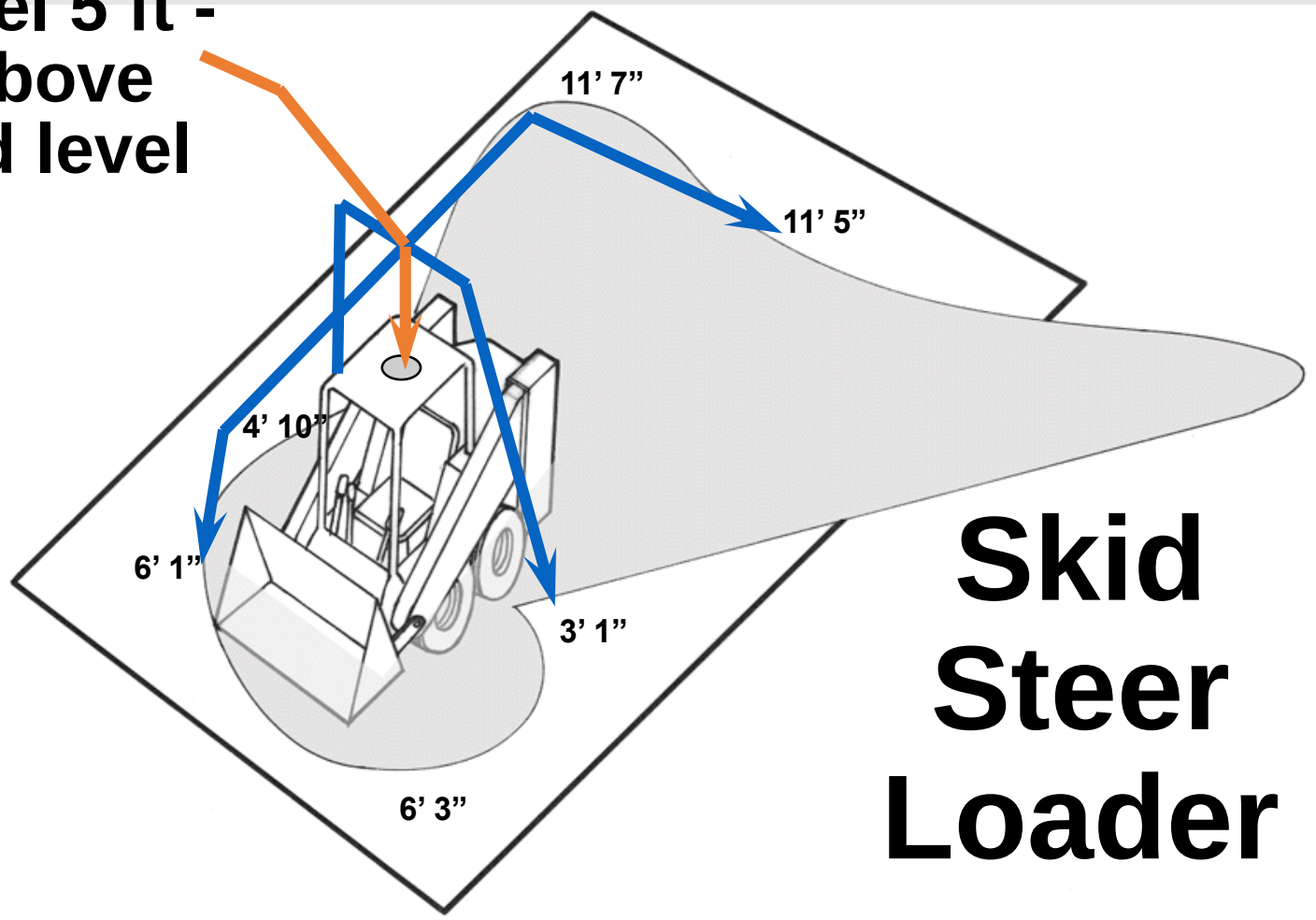
Forklift

Eye level 8 ft - 8 in above ground level



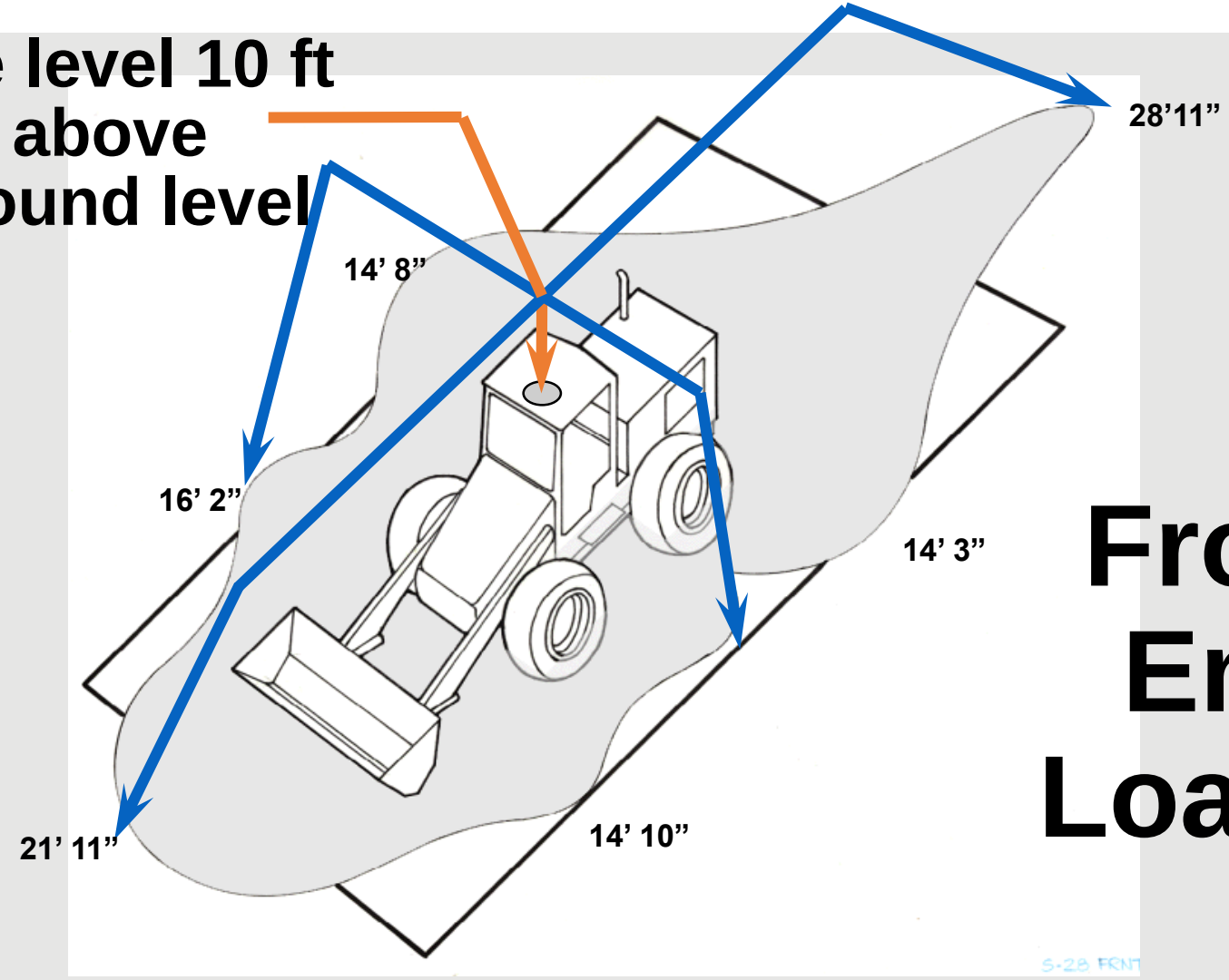
10 Ton Forklift

Eye level 5 ft - 5 in above ground level

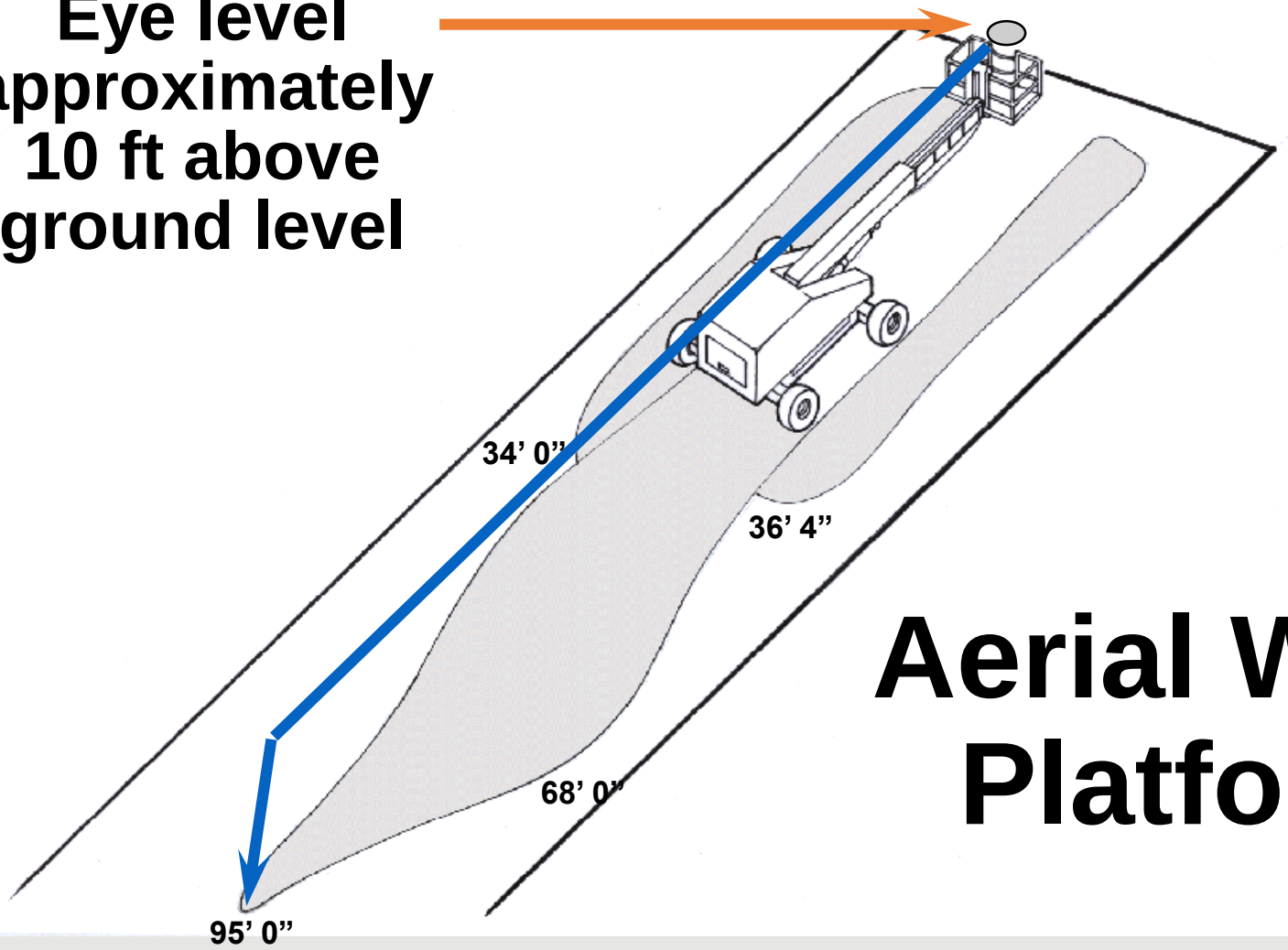


Skid Steer Loader

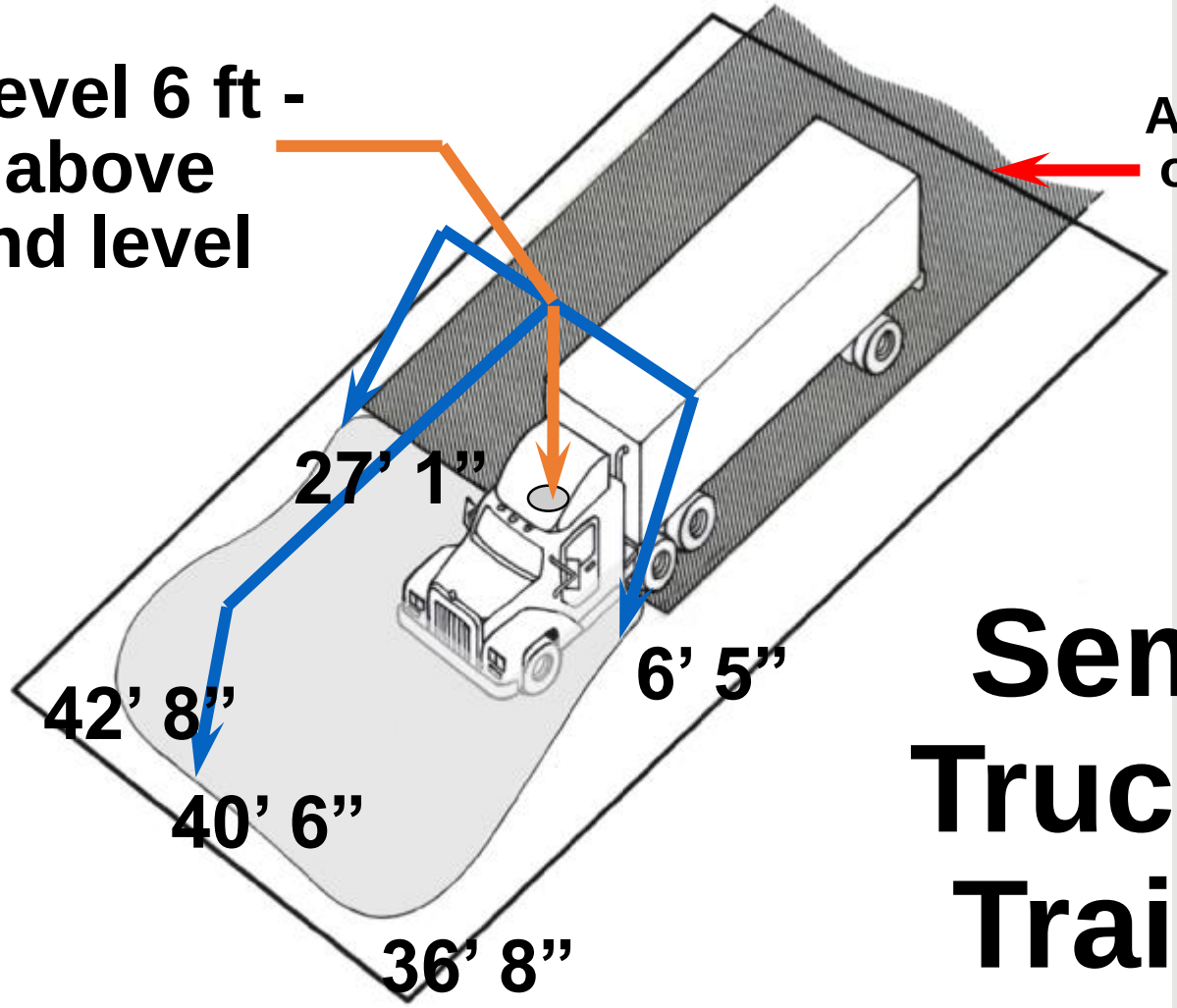
Front End Loader



Eye level approximately 10 ft above ground level



Aerial Work Platform



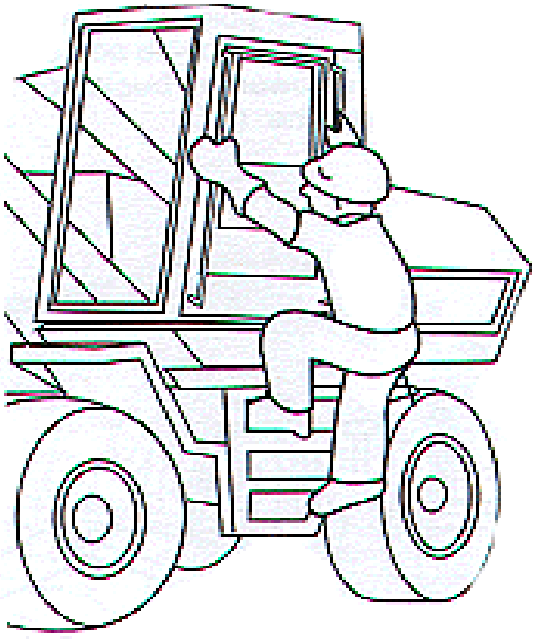
Semi-Truck & Trailer

Wear that seatbelt . . . Always!

When do you use your seatbelt?

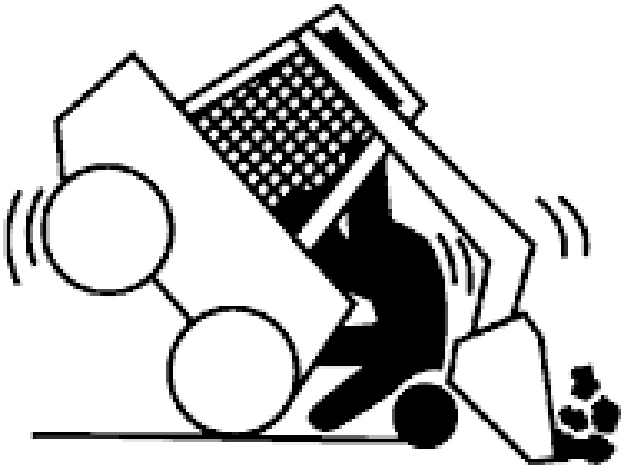
The 3-Point Rule

- Climbing into and out of the operator's seat:
  - Enter and exit the operator's seat from the side opposite of the controls.
  - When climbing in and out of the operator's seat you must be facing the equipment (as seen in this picture)
  - Use the 3-Point Rule when climbing into and out of the operator's seat.
  - Get on and off of the machine slowly. And do not jump off.



This picture shows the equipment operator using the 3-point rule when climbing on and off of the machine. BE SAFE and USE IT AT ALL TIMES!!!

Center of Gravity

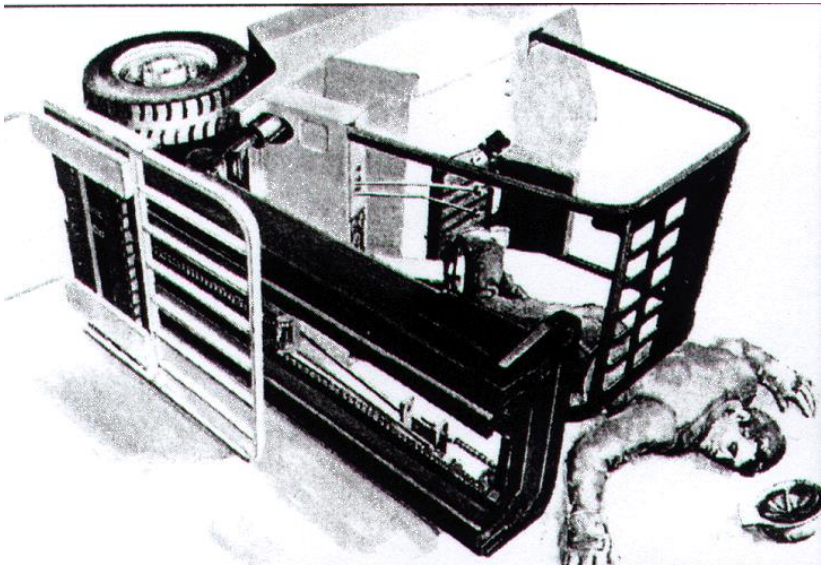


Understanding your equipment

- SIDE TIP-OVERS:
  - Never turn on a ramp
  - Slow down for turns
  - Wear your seatbelt at all times

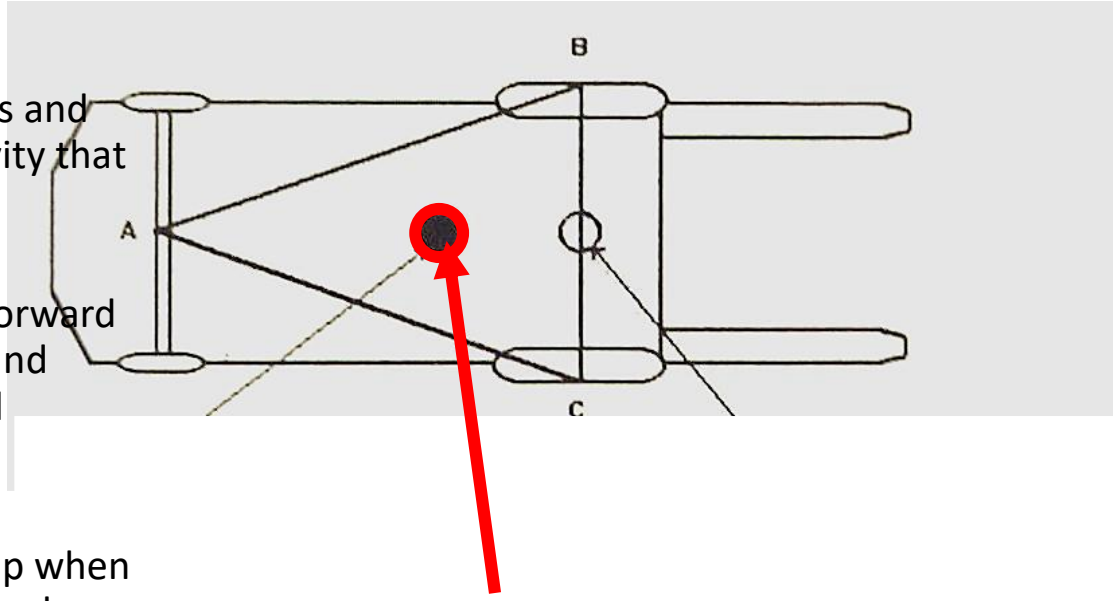
- Never try to jump out. There is not enough time for you to clear the truck.

- If your truck begins to tip sideways, whatever you do, stay in the truck. Hold on tight. Brace your feet. Lean away from the direction of the tip.



Understanding your equipment

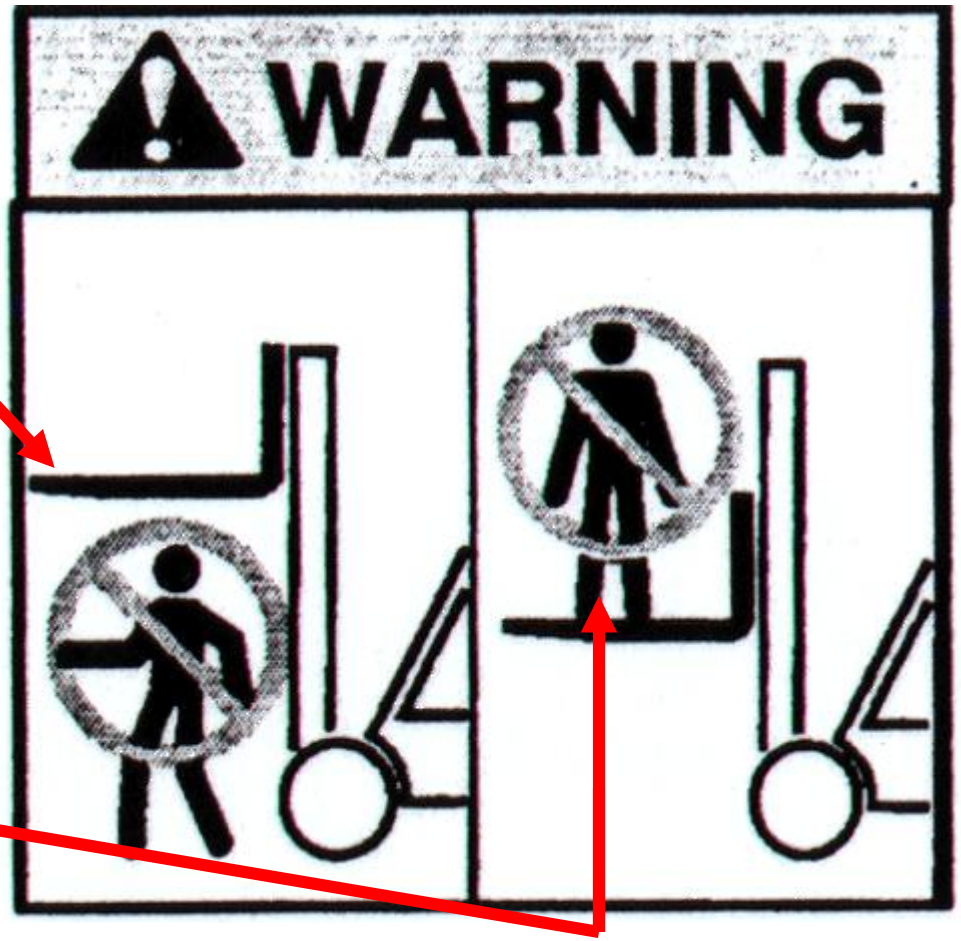
- LIFT TRUCK CENTER OF GRAVITY:
  - The stability of your lift truck is determined by the location of its center of gravity.
  - The lift truck has moving parts and therefore has a center of gravity that moves.
  - The center of gravity moves forward as the mast is tilted forward and backward as the mast is tilted backward.
  - The center of gravity moves up when the mast moves up and down when the mast moves down.



P.I.T. Center of Gravity

Understanding your equipment

- HAZARD AREAS:
- No person shall ever stand under elevated forks or buckets at any time.
- Never elevate a person, using the forks or bucket as a platform.



Loading/Unloading Trailers

- Make sure truck brakes are set.
- Make sure wheels of trailer have been chocked.
- Make sure a jack stand is in place if the semi truck is not present.
- Check the trailer floor, making sure it will support the weight of the lift truck and the load.
- Make sure the dock board is secured, in good condition and of proper capacity.
- It is the lift truck operators responsibility to ensure that the wheels are chocked.

What about this?

A 47-year-old man was operating a forklift in the bed of a semi-trailer. As the truck driver was pulling away from the dock, the forklift fell from the trailer bed to the ground...The forklift operator was able to get himself off the ground and enter the facility, where he was treated by medical personnel. Approximately 16 hours later he died as a result of the injuries he suffered.

Always Chock Your Wheels

Glad Hand Locks

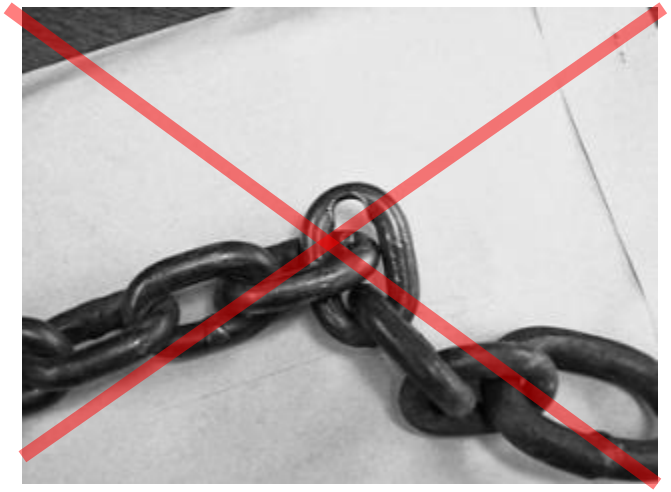
Make it Foolproof

Pulling with chain

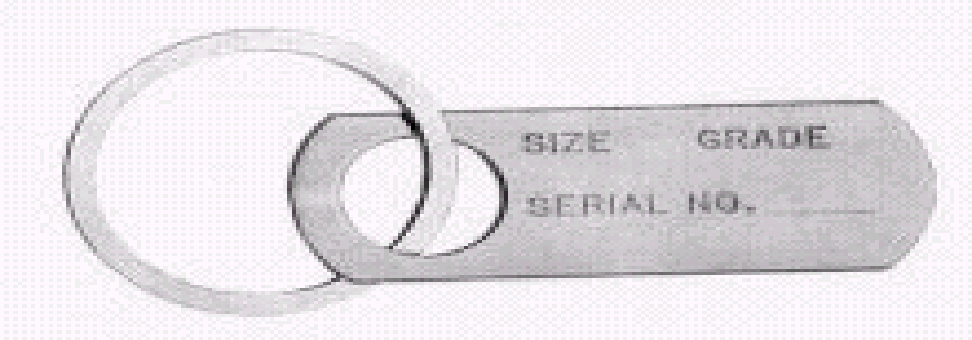
Inspect the chain before each use. Look for:

- Stretched, bent, or twisted links
- Nicks, gouges
- Discoloration (from excessive heat)

THINK: If the chain or other pulling device were to break while being used for pulling where or who will it fly towards?



Lifting with chain



All Chain used for Lifting MUST have a tag stating <u>Size</u>, <u>Grade</u>, and <u>Serial Number</u> of the Chain Sling

Be aware of Carbon Monoxide

HUNTERSVILLE, NC (WBTV) - Three people were taken to the hospital and nine others were evaluated after officials detected high levels of carbon monoxide inside a Huntersville building Monday afternoon.

The source of the carbon monoxide was a forklift, the Huntersville Fire Department determined.

The incident happened just before 12:30 p.m. a building in the 11500 block of Vanstory Drive, where fire officials worked to ventilate the structure.

Medic took three people to Novant Huntersville with minor injuries and evaluated nine others.

By 1:40 p.m., Huntersville fire officials said the building was clear and safe.

http://www.wbtv.com/story/30586558/forklift-to-blame-for-co-detection-in-huntersville-building-hospitalizing-3

Signs & Symptoms of CO

Carbon monoxide, also known as CO, is a deadly gas. It's colorless, odorless and tasteless, making it impossible to detect by human senses. When CO is breathed in, it quickly replaces the oxygen in the bloodstream. Various stages of illness can easily lead up to unconsciousness and death.

Some possible sources of Carbon Monoxide may come from:

- Gas space heaters
- Furnaces
- Generators or other gas powered equipment
- Automobile exhaust

Cell Phone Use And Texting

What is your policy?

Summary

Knowing the hazards around your Powered Industrial Vehicles

- **Operation** – Trained and Certified Operator, Travels at safe speeds, Wears seatbelt at all times, people nearby the equipment
- **Load handling** – Center of Gravity, Capacity of equipment, Clear vision
- **Equipment condition** – Brakes, lights, horn, tires, back-up alarm, hoses, battery, fuel system
- **Shipping/Receiving area** – Dock plate condition, Wheels chocked, Trailer condition, communication

Mobile equipment checklist

- Operators trained to operate safely
- Equipment inspections are getting done
- Back-up alarms, lights, horn function properly
- Data plates are legible
- Three point RULE is being used when climbing on/off of machinery
- Pedestrians are at a safe distance from operating machinery
- Operators are wearing seatbelts
- Equipment is being operated safely and within its limits
- Forks lowered to the ground when machine is parked

Accident Scenario

Details: Loose undersized bales of insulated wire improperly stacked with heavy bales above fell across another row and struck parked forklift.

What happened

- Bales came in from a customer not uniform in size.
- Weather conditions allowed for snow/ice in material which later melted when inside.
- Bale stack slowly settled over the next two days.
- Forklift Op was parked in row next to another stopped PIT Operator discussing workload.
- Stack fell into ROPS of forklift nearly missing operator.

Corrective Actions

- Ensure lightest materials are always placed on top.
- Create a Safe Materials Stacking Guidance document with employee training.
- Implemented a daily safe stacking inspection requirement for all warehousing operations.

Corrective Actions

- Identify and segregate customer materials from materials we package ourselves.
- Raise awareness how weather conditions can have effects on materials coming in (Note – water on floor from melted snow/ice can affect safe operations).
- Implemented a ‘Safe Zone’ for ANY foot traffic away from stacked materials.
- Implemented a safety policy for PIT’s not to stop or converse in aisles of stacked materials (for multiple reasons).
- Review incident and corrective actions with all.

How do we fix this so it doesn't happen again?

Job Procedures

WORK INSTRUCTION -71
Material Stacking

Performed By: Operations

Effective Date: 5/2/2016 | **Revision Date:**

SCOPE:

This work instruction covers all requirements for material that needs to be stacked and stored at Sadoff facilities.

PREREQUISITES/ADMINISTRATIVE:

-

EXCEPTIONS/CONSIDERATIONS:

- This work instruction does not apply to "piles" of bulk material.

INSTRUCTIONS:

1) **GENERAL**
   a) All material must be stacked in a stable and secure condition (OSHA Reg. 1910.176)
   b) If items fall outside these parameters action should be taken immediately by managers/supervisors to re-stack materials to conform:
      (1) Leaning stacks, stacks struck by machinery, or those falling outside the provided guidelines should be re-stacked to meet safety standards.
   c) If inventory levels prevent stacking to remain within expressed limits the responsible manager or area supervisor sends an email notification to the NF VP of trading, the VP of operations, and ownership for upper level decision making on inventory level correction:
      i) The VP of trading, VP of operations, and ownership direct the corrective measures to adequately solve the safe stacking issue.
2) **GAYLORD BOX STACKING:**
   a) Should be limited to heights fitting specific criteria.
   b) Normal box stacking should be max of two high (provided they meet 'general' requirements).
   c) Boxes must be full and evenly distributed to support the gaylord above.
   d) The heaviest and densest gaylords shall be placed at the bottom of stacks.
   e) Boxes containing heavy, dense, or protruding materials shall be strapped with banding to keep boxes from splitting open.
   f) Unfilled boxes may not be used as bottom boxes for stacks:
      i) Unfilled boxes should be stacked on the second level or as single stacks only.
   g) Boxes with excessive weight should be limited to single stacking:
      i) Excessive weight is considered 4000 lbs. or more.
   h) Boxes containing lightweight material may be stacked 3 high in rare instances provided the boxes are full enough to support the stack and stacked uniformly:
      i) Lightweight is considered 2500 lbs. or less.
3) **BALE STACKING:**
   a) The heaviest and densest packages should be placed at the bottom of stacks.
   b) Bales with the most potential for load shift are baled insulated and wire type materials:
      i) These materials require a limit of 3 bales high.
      ii) Insulated wire may be stacked 4 high only in locations that stacking can occur against poured concrete reinforced walls
   c) Daily checks should focus on shifting concerns and leaning bales.
   d) Bales may be further secured using banding if wire ties or material compression appear compromised or damaged
   e) Use the best available positions to stack material for greatest support (walls, posts, corners):
      i) Solid Walls – offer back stack support,
      ii) Posts – offer back stack support,
      iii) Corners – offer two sided support.
   f) Bale stack height should be adjusted to the lowest possible heights with respect to:
      i) Material package type,
      ii) Material type to be stacked,
      iii) Available space,
      iv) Traffic flow in the stacking area.
4) **Sow Stacking:**
   a) Larger sows should be kept to the bottom of stacks and undersized placed on the top.
   b) Sows should be stacked to a maximum approximate height of 6'.
   c) Sows should be stacked outside of primary production area.
   d) Sows stacks should be stable and secure.
   e) Sows stacks should remain relatively level throughout the stack:
      i) Alternating low angled sows is acceptable if this permits relatively level stacking.

OBJECTIVES / MEASUREMENTS:

-

INSTRUCTIONS BRANCHES:

1) Each branch has their own "Daily Inspection Form" specific to areas of operation. Inspection for safe stacking is incorporated on these daily forms. This single check is a bare minimum and general inspections should occur periodically over the course of the day.

DEFINITION:

- "Full" means material is even with the top of the box

RESPONSIBILITY:

- Stacking safety issues can be called out and corrected by all, but responsibility for safe stacking compliance is that of the branch or department manager.

REFERENCES:

- OSHA Reg. 1910.176 – Materials must be secured and employees must ensure that stacked materials be kept from falling over or collapsing

SAFETY:

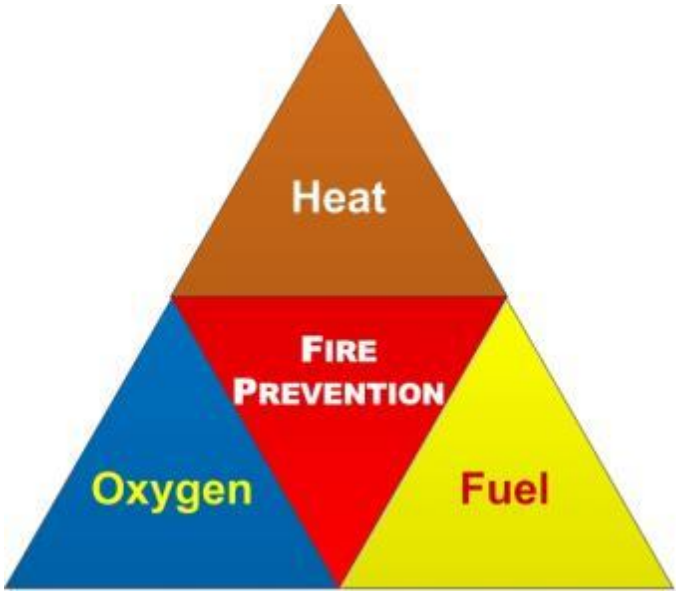
- Stacking always carries an inherent risk, stacking outside of the designated stacking instructions increases risks beyond an acceptable level.

Loading Dock Hazard Recognition

https://www.youtube.com/watch?v=JPfaL0fUu5s

Loading Dock Safety and Hazard Recognition

Fire Prevention and Housekeeping



Class A fire

- "Class A fire" means a fire involving ordinary combustible materials such as paper, wood, cloth, and some rubber and plastic materials

Class B fire

- "Class B fire" means a fire involving flammable or combustible liquids, flammable gases, greases and similar materials, and some rubber and plastic materials

A Flammable Liquid is one that has a flashpoint below 100 degrees F. While a Combustible Liquid is one that has a flashpoint above 100 degrees F.

Class C fire

- "Class C fire" means a fire involving energized electrical equipment where safety to the employee requires the use of electrically nonconductive extinguishing media

Class D fire

- "Class D fire" means a fire involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium

Incipient stage fire

- "Incipient stage fire" means a fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, or small hose systems without the need for protective clothing or breathing apparatus

Fire extinguishers

- Portable fire extinguishers should be mounted and located so that they are readily accessible to employees without subjecting them to possible injury

Fire extinguishers

- Be sure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use

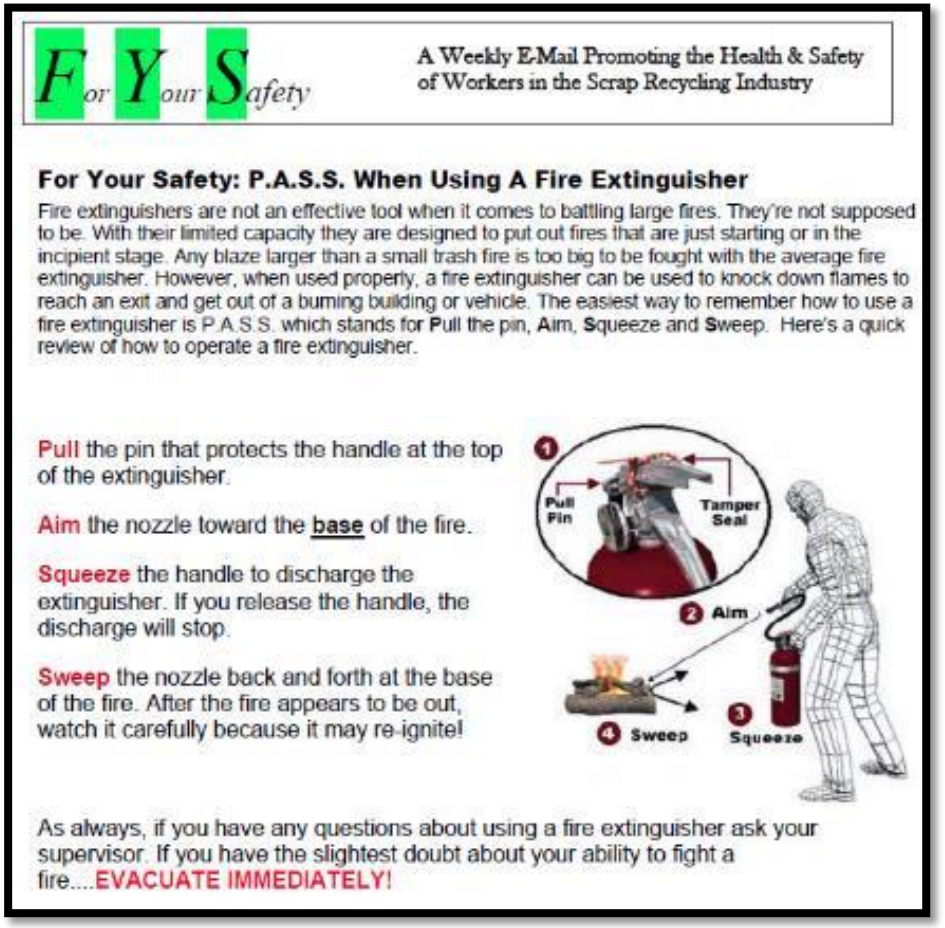
Fire extinguishers

P – Pull the pin

A – Aim the nozzle toward the base of the fire

S – Squeeze the handle

S – Sweep the nozzle back and forth at the base of the fire



For Your Safety

A Weekly E-Mail Promoting the Health & Safety of Workers in the Scrap Recycling Industry

For Your Safety: P.A.S.S. When Using A Fire Extinguisher

Fire extinguishers are not an effective tool when it comes to battling large fires. They're not supposed to be. With their limited capacity they are designed to put out fires that are just starting or in the incipient stage. Any blaze larger than a small trash fire is too big to be fought with the average fire extinguisher. However, when used properly, a fire extinguisher can be used to knock down flames to reach an exit and get out of a burning building or vehicle. The easiest way to remember how to use a fire extinguisher is P.A.S.S. which stands for **P**ull the pin, **A**im, **S**queeze and **S**weep. Here's a quick review of how to operate a fire extinguisher.

Pull the pin that protects the handle at the top of the extinguisher.

Aim the nozzle toward the **base** of the fire.

Squeeze the handle to discharge the extinguisher. If you release the handle, the discharge will stop.

Sweep the nozzle back and forth at the base of the fire. After the fire appears to be out, watch it carefully because it may re-ignite!

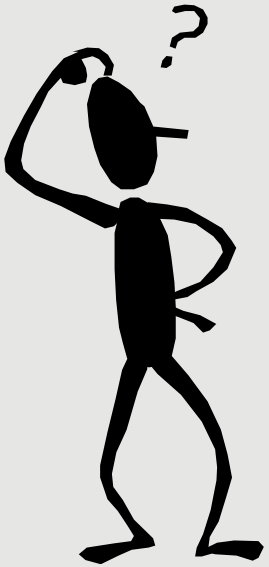
As always, if you have any questions about using a fire extinguisher ask your supervisor. If you have the slightest doubt about your ability to fight a fire....EVACUATE IMMEDIATELY!

Fire prevention checklist

- Fire extinguisher(s) accessible and their location's are marked properly
- Fire extinguishers are in place and charged
- No combustibles or flammables in hot work areas
- Trash/Rag cans covered or emptied on a daily basis
- Clear egress routes and exit signs
- Automatic sprinkler heads unobstructed
- Flammable liquids stored properly
- Combustible materials kept to a minimum in process areas
- Fire extinguisher are checked per code

Good Housekeeping

Identify the possible fire hazards in your workplace



Walking & Working Surfaces

- Always walk in designated pedestrian areas.
- Pedestrians must maintain a safe distance from all mobile equipment.
- Fall protection must be implemented in areas above 48 inches (adequate guardrails)
- Implement a safety policy for PIT's not to stop or converse in aisles of stacked materials (for multiple reasons).

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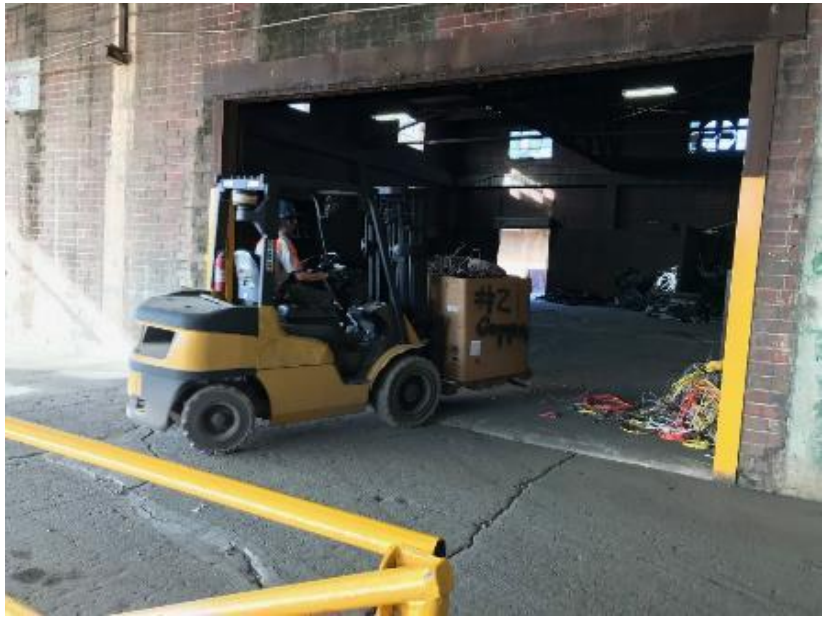


Housekeeping checklist

- Aisles/Stairs/Work stations clear of obstructions (slip/trip hazards)
- Entry/Exits clear and unlocked
- Work area clear of recognized hazards
- Disconnects accessible
- Compressed cylinders stored properly
- Material stacked properly (will it fall)
- Break room clean
- Overall general area clean
- Proper spill management tools available and used
- Scrap stored properly/orderly
- Mobile equipment cabs
- Condition of maintenance shop areas
- Restrooms clean and sanitary

Lockout/Tagout

Authorized Employee

- Maintains and/or uses the equipment
- Services equipment
- Is **properly** and **thoroughly** trained to use lockout/tagout procedures
- Operates equipment (sometimes)

Affected Employees

Employees who:

- Operate
- Work around
- Occasionally adjust equipment that is subject to lockout tagout

Where to Begin

- First, conduct a **HAZARD ASSESSMENT** by identifying each piece of equipment that is used, serviced, or maintained
  - Include broken or stored equipment
- Then, determine the requirements for lockout
  - If there is more than one primary energy source to the equipment, document each source

Where to Begin

- Document all energy sources
  - Hidden
  - Direct
- The hazard posed
- The magnitude or measurable degree of danger
- Special or unusual conditions
- Proper isolations and devices

Types of Lockout Devices

- Locks
- Blocks
- Chains
- Multilock hasps
- Wheel valve covers
- Ball valve covers
- Gladhand locks

Always Lock it Out!

- Durable
- Standardized
- Substantial
- Identifiable

Always Lock it Out!

- The OSHA standard for The Control of Hazardous Energy (Lockout/Tagout), Title 29 Code of Federal Regulations (CFR) Part 1910.147, addresses the practices and procedures necessary to disable machinery or equipment, thereby preventing the release of hazardous energy while employees perform servicing and maintenance activities.

- In addition, 29 CFR 1910.333 sets forth requirements to protect employees working on electric circuits and equipment. This section requires workers to use safe work practices, including lockout and tagging procedures.

Remember

- One Person
- One Lock
- One Key

Lock Out Tag Out Checklist

- Annual authorized person training complete
- Annual affected person training complete
- Disconnects labeled and accessible
- Authorized employees have access to locks
- All hazards are locked out
- Employees maintain key during LOTO
- Try (verify) out is done after LOTO is applied
- Locks and tags used to identify user
- LOTO devices are in good working order
- Written procedures accessible to all
- Periodic (annual) inspections are getting done

HAZARD COMMUNICATION

Hazardous Chemical

Any chemical which is classified as:

- Physical Hazard
- Health Hazard
- A simple asphyxiant
- Combustible dust
- Pyrophoric gas
- Hazard not otherwise classified

Physical Hazard

Physical hazards are chemicals that can cause

- Fire
- Explosion
- Violent reaction

Health Hazard

Health hazards are chemicals that are harmful to your health and can cause:

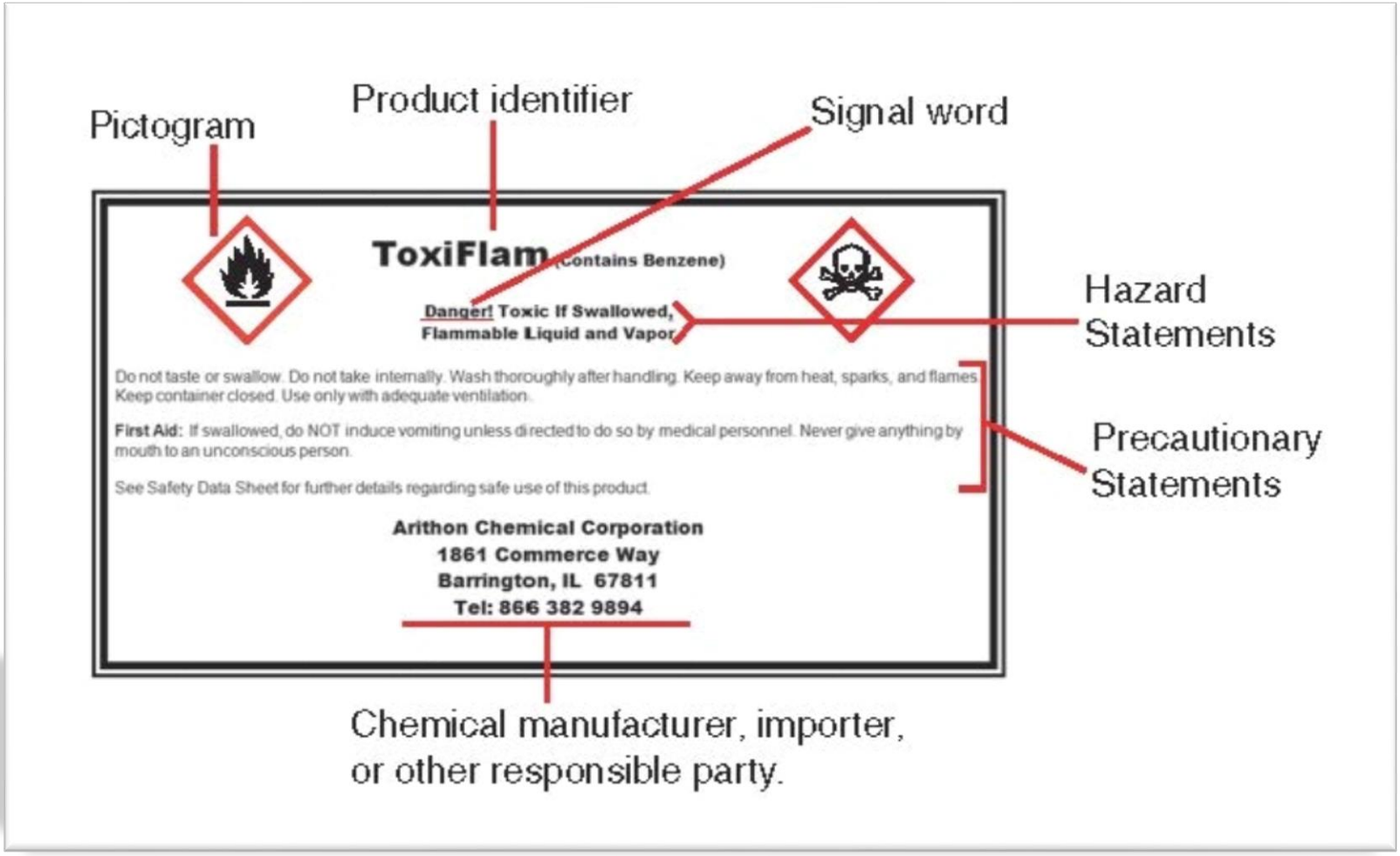
- Short-term (acute) health problems
- Long-term (chronic) health problems

Health Hazard

OSHA considers a health hazard to be any chemical which:

- Is toxic
- Is corrosive to the skin or eyes
- Is a respiratory sensitizer
- May cause cancer, birth defects or reproductive issues
- Attacks specific organs
- Is harmful or deadly when inhaled

Labeling


Pictogram
Product identifier
Signal word
ToxiFlam (Contains Benzene)
Danger! Toxic If Swallowed,
Flammable Liquid and Vapor
Hazard Statements
Do not taste or swallow. Do not take internally. Wash thoroughly after handling. Keep away from heat, sparks, and flames. Keep container closed. Use only with adequate ventilation.
First Aid: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
See Safety Data Sheet for further details regarding safe use of this product.
Precautionary Statements
Arithon Chemical Corporation
1861 Commerce Way
Barrington, IL 67811
Tel: 866 382 9894
Chemical manufacturer, importer, or other responsible party.

Pictograms

Health Hazard

Carcinogen

Mutagenicity

Reproductive Toxicity

Respiratory Sensitizer

Target Organ Toxicity

Aspiration Toxicity

Pictogramas

Exclamation Mark

Irritant (skin and eye)
Skin Sensitizer
Acute Toxicity
Narcotic Effects
Respiratory Tract Irritant
Hazardous to Ozone Layer
(Non-Mandatory)

Pictograms

Skull & Crossbones

Acute toxicity (fatal or toxic)

Pictograms

Gas Cylinder

Gases Under Pressure

Pictograms

Corrosion

Skin Corrosion/Burns

Eye Damage

Corrosive to Metals

Pictograms

Exploding Bomb

Explosives

Self-Reactive

Organic Peroxides

Pictograms

Flame

- Flammables
- Pyrophoric
- Self-Heating
- Emits Flammable Gas
- Self-Reactive
- Organic Peroxides

Personal Protective Equipment

Personal Protective Equipment

Hard Hat

- Offers protection from falling material, sparks, or other objects that may harm the skull
  - Could have a face shield attached to the hard hat
  - Could have ear muffs for hearing protection attached to hard hat

Prescription Eye Protection

Safety Glasses

- Offers protection for the eyes
  - ANSI Z87 will be stamped somewhere on the frame.
  - Must have side shields.
  - Prescription inserts are options for those who wear glasses to see better.

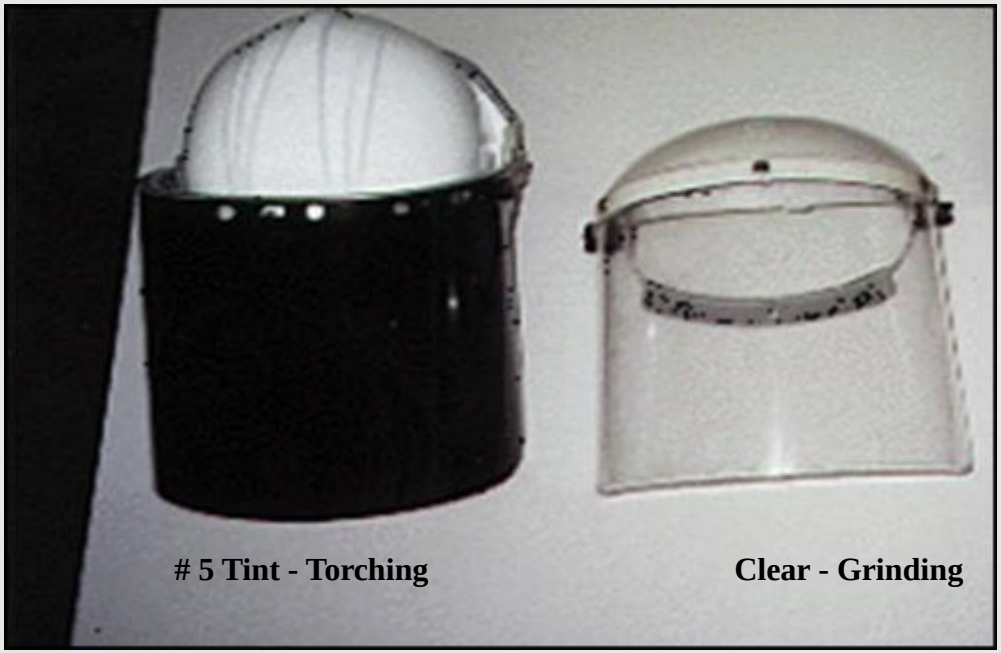
Eye and face protection

Face shields:

- Provides full-face protection

Wear when:

- Torching
- Grinding



Eyewash Stations

- Eyewash stations are required if certain eye hazards are present
  - batteries
  - corrosive chemicals
  - Acid
- Where are your eyewash stations?

Types of foot protection

Protective Footwear

- Protects feet and toes from punctures, heat, sparks, heavy objects
- Spats and/or metatarsal guards will add further protection to boots, feet and legs

Types of hand protection

Hand / Arm Protection

- Kevlar Arm Covers
  - burn/fire resistant
  - cut resistant
- Kevlar Glove Inserts
  - burn/fire resistant
  - cut resistant
- Leather Gloves
  - puncture resistance
  - welding/torching
  - burn/fire resistance
- **PPE must be sufficient enough to protect from recognized hazards**

Hazard Recognition

- **Know the hand hazards of your working area.**
- **They could be:**
  - Electrical
  - Chemical
  - Heat or Cold
  - Moving Equipment
  - Handling sharp edged materials
  - Using knives or box cutters
  - Amputation

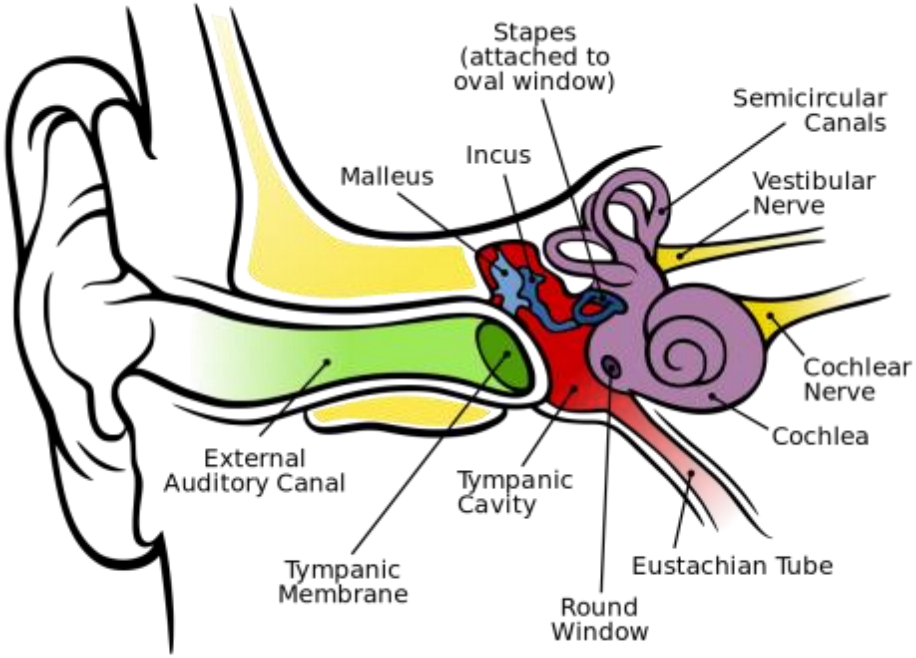
Hearing Protection

Hearing Protection

What do you use as Personal Protective Equipment in noisy areas of your plant?

Hearing Protection

Can you recover from hearing loss?



https://en.wikipedia.org/wiki/Auditory_system

PPE checklist

- PPE job hazard assessments are completed
- Safety glasses with sideshields
- Steel toe boots
- Hard hat
- Hearing protection
- Cotton clothing (when necessary)
- Reflective apparel
- Noise exposure documented
- Eyewash stations (if needed) are set up and properly maintained
- PPE is being used properly, is in good condition, and stored properly
- PPE is available and employees are trained to use it properly

Hazard Recognition

- **Determine the Proper PPE and Safe Work Practices**
  - Use proper tools to perform tasks; “no-touch” tool
  - Inspect and replace defective tools
  - Don’t wear rings, bracelets, or loose fitting clothing
  - Evaluate how chemicals are handled

Hazard Recognition

- **Implement a Training Program and Discuss:**
  - Types of hand hazards in the workplace
  - Types of injuries that can result
  - Safe work practices to minimize exposure to hazards
  - Know the proper types and fit of PPE to use

Hazard Recognition Quiz

Choose the BEST Answer

Susan Harwood Training Grant

SH-05114-SH9

Quiz – Hazard Recognition

Tool box talk and safety meetings are an opportunity for people to learn and share safe practices.

True or False

Quiz – Hazard Recognition

Which of the following is NOT a sign of carbon monoxide poisoning?

A. Headache
B. Nausea
C. Shortness of breath
D. Hunger

Quiz – Hazard Recognition

Doing a 360 degree walk-around of your mobile equipment will help you recognize:

A. If other people are in your operating or working zone
B. If other scrap material is in your way
C. If there is visible damage to the machinery
D. All of the above

Quiz – Hazard Recognition

Fall protection must be in place if a person is working in an area higher than 36 inches.

True or False

Quiz – Hazard Recognition

Good housekeeping practices are a sign of a good safety culture.

True or False

Quiz – Hazard Recognition

A forklift operator should always use their horn when passing through open doorways or around blind corners.

True or False

Quiz – Hazard Recognition

Traveling the fork lift at safe speeds is necessary because?

A. Pedestrians may be in the area
B. The ground conditions are smooth
C. The brakes may not work
D. Your supervisor makes you

Quiz – Hazard Recognition

Prior to removing a machine guard or safeguarding device, it is important to follow proper lock-out, tag-out, try-out, and testing procedures.

True or False

Quiz – Hazard Recognition

When talking about lock out tag out, an "affected" employee is…

A. One who services and maintains the machinery
B. One who creates the lock out tag out procedures
C. One who may work around the machinery
D. One who purchases the locks and tags

Quiz – Hazard Recognition

Recognizing and reporting hazards to the company's management team is an important part of the safety culture?

True or False

Quiz – Hazard Recognition

A job hazard assessment is a step-by-step procedure that helps people recognize which of the following:

A. What tools are needed to complete the job the fastest
B. What the environmental conditions look like at the job site
C. The hazards that may be present during the job task
D. How to do the job within the time frame given

Quiz – Hazard Recognition

It is everyone's job at the workplace to recognize, discuss, and report hazards that may be present?

True or False

Thank You,

Any questions or discussion?