

Construction self inspection guide

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Construction Self-Inspection Guide

- This presentation covers some of the most frequently cited safety and health violations which cause a majority of fatalities and injuries in construction.



Most commonly cited hazards

- Written programs
 - Accident prevention
 - Fall protection work plan
 - Hazardous chemical communication
 - Respirators
 - Lockout/tagout
- Direct hazards
 - Fall protection
 - Personal protective equipment
 - Excavation and shoring
 - Eye/body wash
 - Live electrical parts
 - Noise exposure
 - Machine guarding



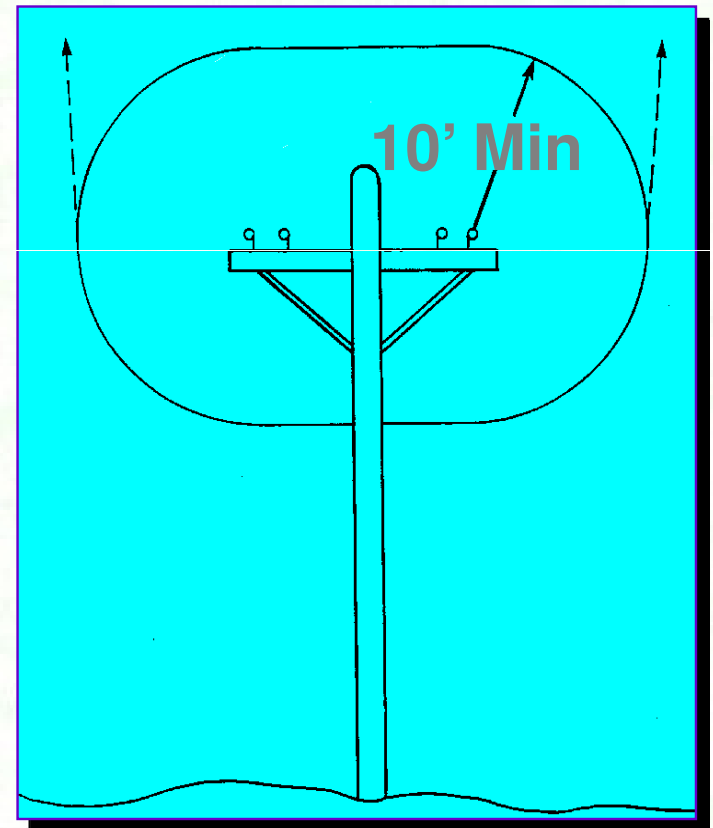
Power Lines

Minimum 10 foot clearance

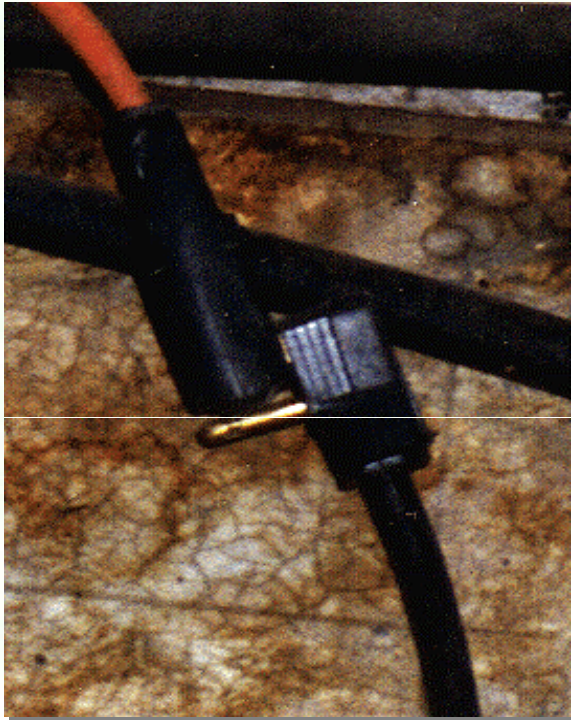


Electric power lines

- Equipment & persons
 - Under 50 kv
 - 10' distance
 - Over 50 kv
 - 0.4" per kv above 50 kv
- Access by qualified electrical utility workers only



Electrical Hazards



Improper Grounding



No cage around bulb



Exposed live circuits

Electrical Hazards

- All temporary power must be GFCI-protected
- All electrical circuits and connections must be approved

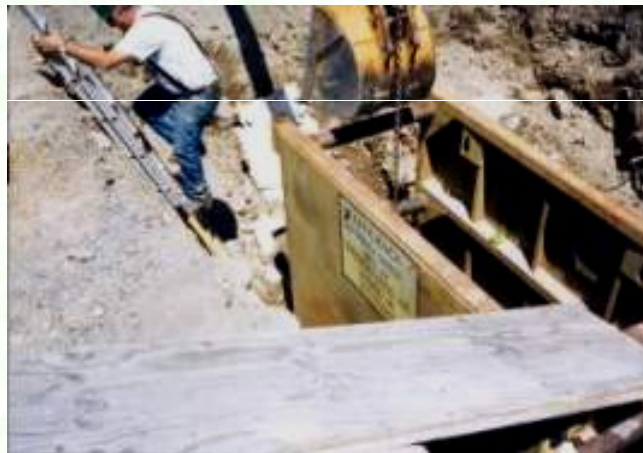


Trenching/Excavation

Any trench four feet deep or more must be protected.



Example of shoring and a trench box



Needs a trench box

Guardrails

Openings with a drop of four feet or more must be guarded



Standard Guardrail Specification

- Top rail 39–45 inches with mid-rail
- 200 pound load requirement



No mid-rail and very risky behavior

Scaffolding

Fully planked and with guardrails



Stairways

Four or more risers must have handrails



No handrails or guardrails

Fall Protection

Fall protection must be provided at elevations of ten feet or greater.

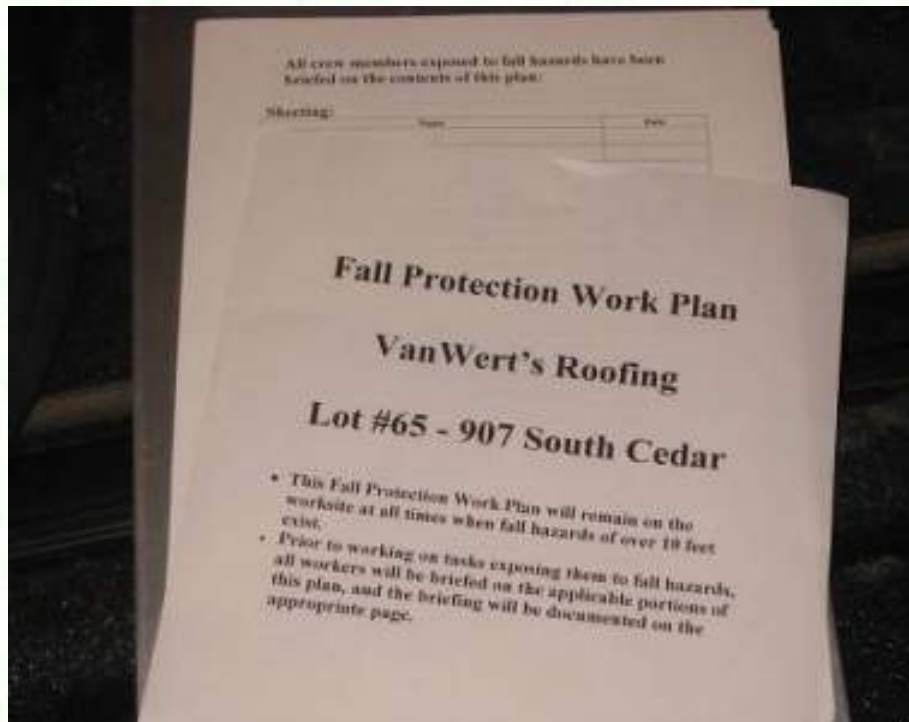


Fall Restraint prevents you from leaving the roof. Includes either a belt, harness or guardrails.

Belt or harness anchorage point must be rated for 4 times intended load.

Fall Arrest catches you in a fall and means a full body harness. A maximum 6' fall is allowed. Includes a 5000 pound lanyard, lifeline and anchorage strength, or 3000 pound strength when deceleration devices are used and fall distance is limited to 2 feet.

Fall Protection Workplan



A complete work plan

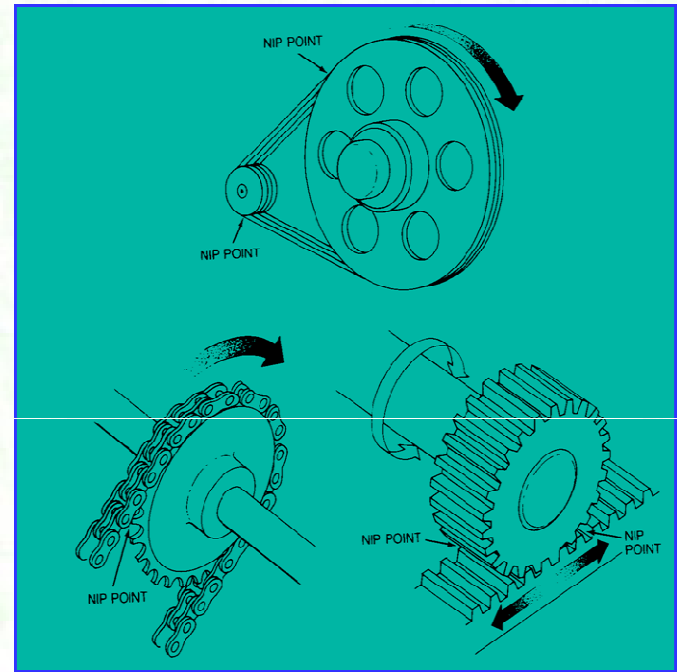


This work plan is too sketchy

Augers, Pulleys, Chains & Sprockets



properly guarded cement mixer auger



Unguarded nip points

The most common offenders on a construction site are:

- Table saw - Belt and pulley on the motor.
- Air compressor - Belt and pulley on the motor.
- Cement mixer - Chain and sprocket and auger.

All Power Saws Must be Guarded



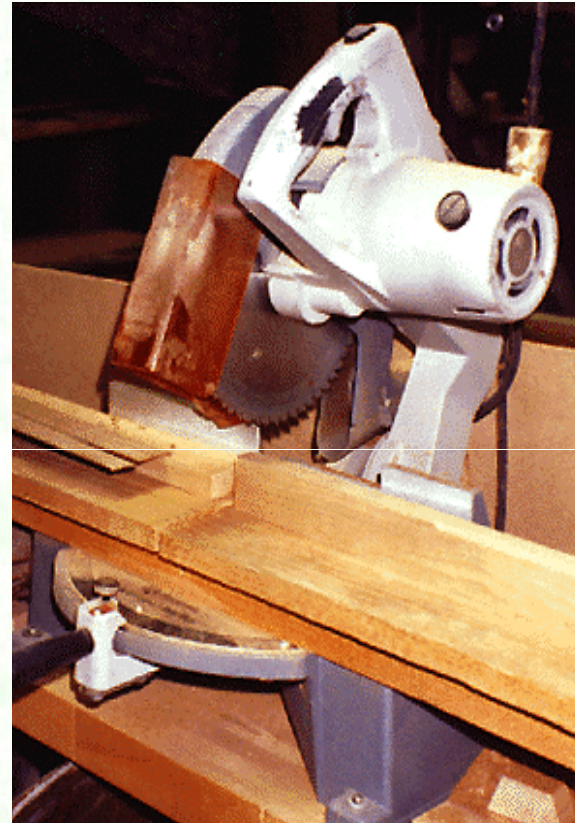
Properly guarded



Needs a blade guard

Incomplete guard

- Front
- Blade periphery
 - Right side
 - Left side



The standard requires the point of operation be guarded against contact from all directions. This guard has a missing component.

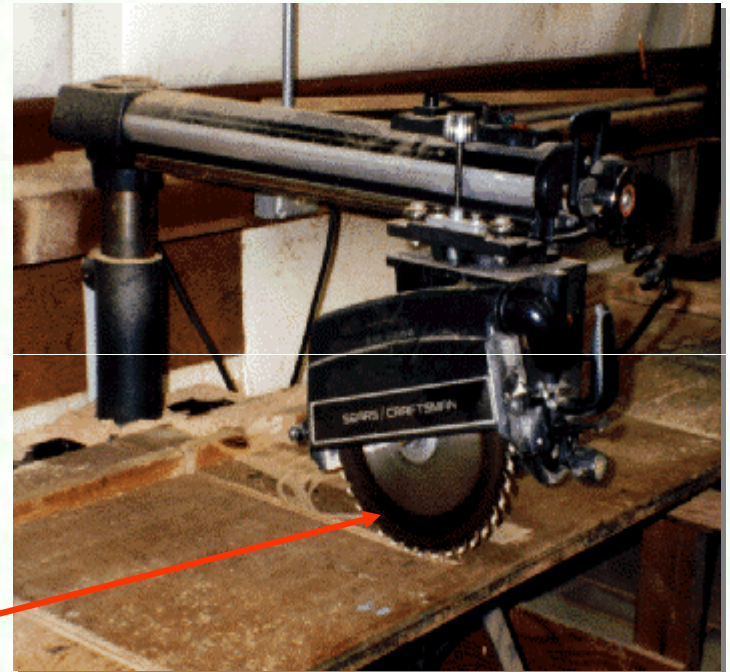
Incomplete Guard

Radial arm saw Requirements

Upper and lower blade guard

Gentle return upon release

Blade cannot extend beyond edge of table



Lower guard is missing

Remember that **BOTH** side of the blade **MUST** be guarded.
Blade guards must be checked regularly to ensure that they are operating as designed and NOT pinned up.

Standard guard is not always convenient for production use.

Note: Non-skid surface must be on floor in front of dangerous power tools.

Angle Grinders - 180° Guard Required



Ladders

- Must extend 36 inches above landing
- Secure to prevent displacement



Yes



No!!

Articulating Boomlift

Full body harness required at all times

MOBILE WORK PLATFORMS



Floor & roof holes/openings

Covered and secured with no tripping hazards.



A fatality occurred here!!

Minimum Clothing

At least a short-sleeve shirt, long pants and substantial footwear required



Yes



No!!

Hard Hats

- Readily accessible
- Must be worn whenever overhead hazards exist



Compressed Gas Cylinders

Must be stored properly



Chained, but can't store acetylene next to oxygen



No chains

Vehicular Traffic Hazards

Employees must wear high-visibility apparel on road projects



Housekeeping

During construction, continuous cleanup is required to eliminate tripping hazards



This needs cleanup!

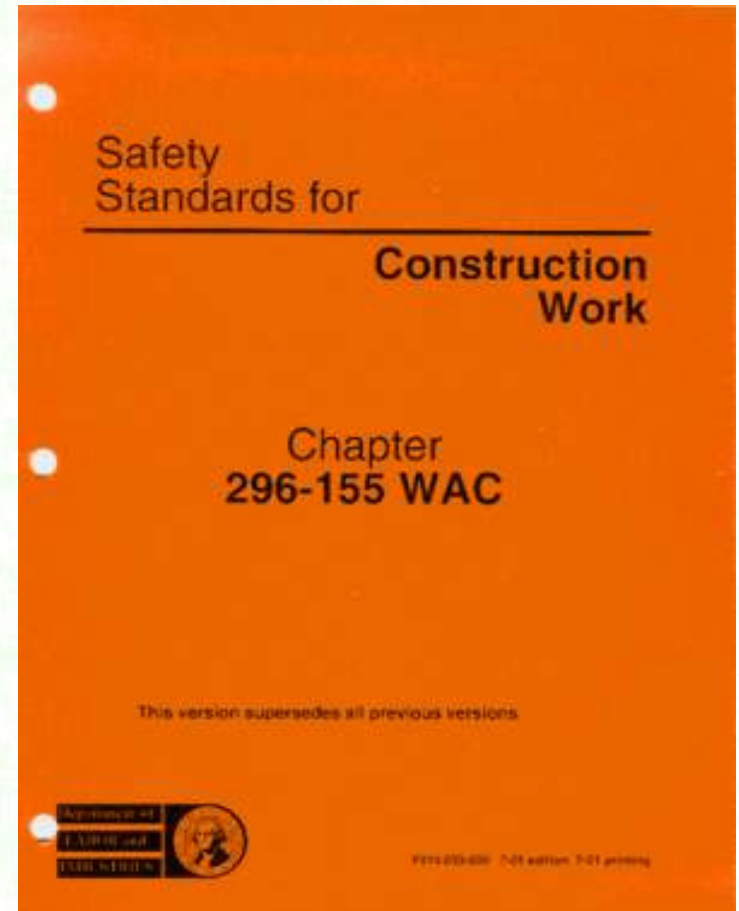
First Aid Kits & Training

First-aid supplies must be readily available



Accident Prevention Program

- Written in outline format
- Tailored to the particular operation
- Weekly leader/crew safety meetings
- Weekly walk-around safety inspections



Crew-leader Meetings

Document meetings and attendance



Personal Protective Equipment

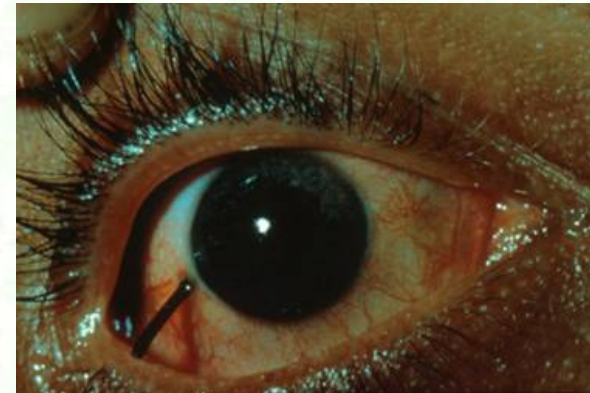
Deficiencies in PPE include:

Failure to use

Improper use

Lack of maintenance

Not replaced when worn out



Out of date hardhat weakened by UV rays

Noise and Hearing Loss Prevention

Construction is a noisy activity and many construction workers suffer mild to severe hearing loss.

There is really no such thing as “tough ears” or “getting used to it”.

The best protection is earmuffs or earplugs worn at all times when working with or around noisy equipment.



Chemical Hazard Communication

For chemicals used at the worksite, be sure to have:

- Container labels
- Material safety data sheets (MSDS)
- Employee training



MATERIAL SAFETY DATA SHEET	
Trade Name: ACETONE	
Chemical Family: Acetone	
Formula: C ₃ H ₆ O	
Manufacturer:	Supplier:
Emergency Phone #'s	
Transportation EMG. Phone #'s CANUTEC	
HAZARDOUS INGREDIENTS	
ACETONE: 99% CAS # 67-64-1	
<u>Exposure limits</u> , PPM : OSHA-PEL 750 , ACGIH - TLV 750	
LD50 Orla rat 9750 MG/KG , Skin rabbit 20 G/KG, LC50 rat 16000 PPM	
PHYSICAL DATA	
<u>Appearance & Odor</u> : Clear colorless liquid, sweet odor	
<u>Vapor pressure</u> : MM HG/20 DEG. c :184	

Use emergency washing equipment for:



Corrosives -

- ✓ that destroy tissue and eyes
- ✓ include acids and caustics
- ✓ includes chemicals with pH less than 2.5 or more than 11



Strong Irritants -

- ✓ that cause an inflammatory effect at point of contact



Toxic Chemicals -

- ✓ that are absorbed through the skin and cause ill health effects



WISHA Consultation Services

Safety & health program review and worksite evaluation is available:

- By employer invitation only
- Free and confidential
- No citations or penalties
- Letter explains findings
- Follow-up all serious hazards

For additional assistance, you can call one of our consultants. Click below for local L & I office locations:

http://www.lni.wa.gov/wisha/consultation/regional_consultants.htm