



WELCOME!



New Hire Orientation

Safety Overview

Your Safety is Our Priority

No job is more important than you.

- NAC is a Drug & Alcohol FREE workplace
- NAC is an Equal Opportunity Employer
- See something? Say something!
 - Notify: Supervisor or Safety Coordinator
 - Disciplinary actions for failure to follow NAC policies
 - Verbal or written warnings
 - Suspension
 - Termination

Questions?

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Employee Expectations

- ◆ Participate in Safety Tasks
 - Weekly Toolbox Talks – emailed weekly
 - Targeted training - as needed
 - Safety Inspections
- ◆ Follow all safety rules
 - ◆ Wear PPE
 - ◆ Call out unsafe behavior
 - ◆ Report injuries and incidents
- ◆ Plan for Safe Work
 - Fall Protection and Elevated Work
 - Crane Picks
 - Trenches + Excavation
 - Electrical Work
 - Unique tasks

Injured?

Emergency

- ◆ Call 911
- ◆ Emergency Room

Minor Clinic Visit

- ◆ Urgent Care
- ◆ Occupational Clinics – UCWCP

First Aid

- ◆ Bloodborne Pathogens
- ◆ Precautionary Principal



Union Construction Workers
Compensation Program

Complete Forms

- ◆ First Report of Injury (FROI)
- ◆ Incident Investigation Form

Jobsite Safety

◆ Wear your PPE

- Hard hat, safety glasses, cut resistant gloves, hearing protection
- Hi-Vis vest
- Heavy duty work boots with safety toe

◆ Prepare for Emergencies

- First Aid Kits
- Fire Extinguishers
- Emergency Alerts & Evacuation protocol
- Know exit routes, meeting places

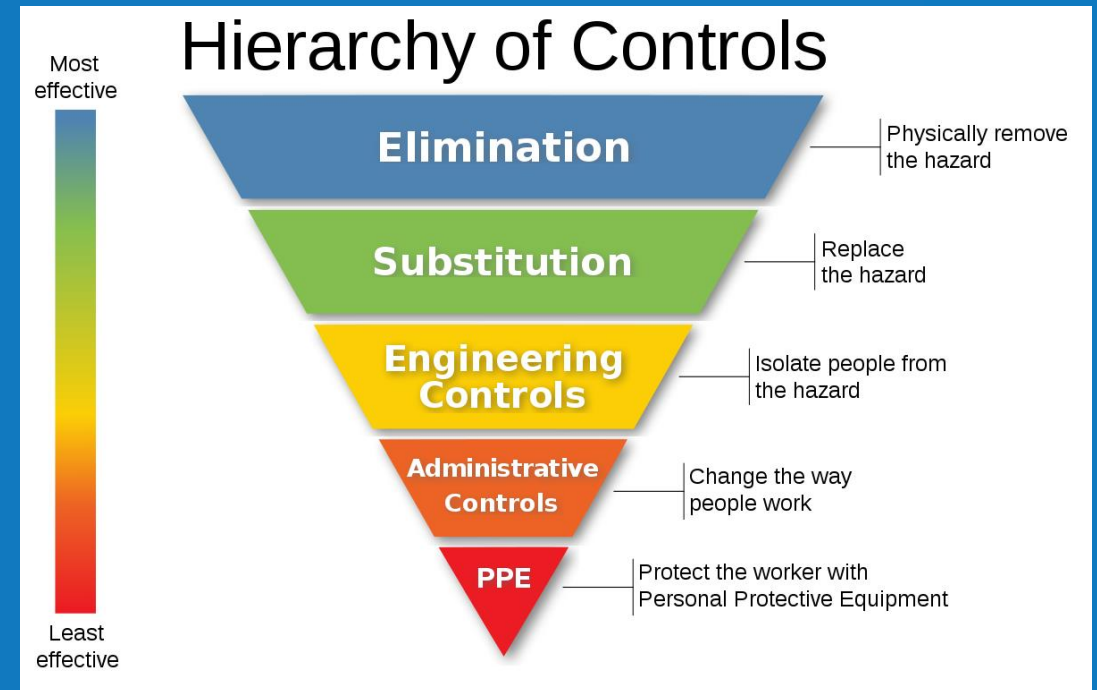
◆ Safety AWAIR Program

- Review NAC's safety program

◆ Safety Data Sheets (SDS) & MN

Right to Know:

- Follow Product Labels
- View SDS on NAC website
- 16 standardized sections
- Pictograms to visualize hazard





- Housekeeping
 - Keep aisles clear
 - Clean as you go, Don't dry sweep
 - Store materials properly
 - Cylinders can't roll
 - Flammables
 - Sharp edges protected
- Power Tools
 - Guards in place – grinders must have guards
 - Use tools properly
 - Get training from foreman when needed
- Drive Safe
 - Hands free phone use only
 - Defensive driving
 - Actively anticipate risk: Don't be aggressive
 - Keep your distance
 - Keep vehicles locked + secure

Fall Protection – Required at 6 ft

TIE OFF - Personal fall arrest system (PFAS)

Inspect your equipment and verify your system will work

- Harness: Wear properly
- Connection Device: Lanyard or SRL
 - Shock absorber
 - Consider fall clearance
- Anchorage Device
 - Designed for fall protection
 - Rated for 5000 lbs. force
 - Overhead tie-off is best.
- Restraint lanyards
 - Can't reach edge, rated 3000 lbs. force

HOLE COVERS

- Cover all 2" + holes
- USE ¾" plywood, secure & label



GUARDRAILS

- 39"-45" with midrail + toeboard
- Sturdy, withstand 200 lbs

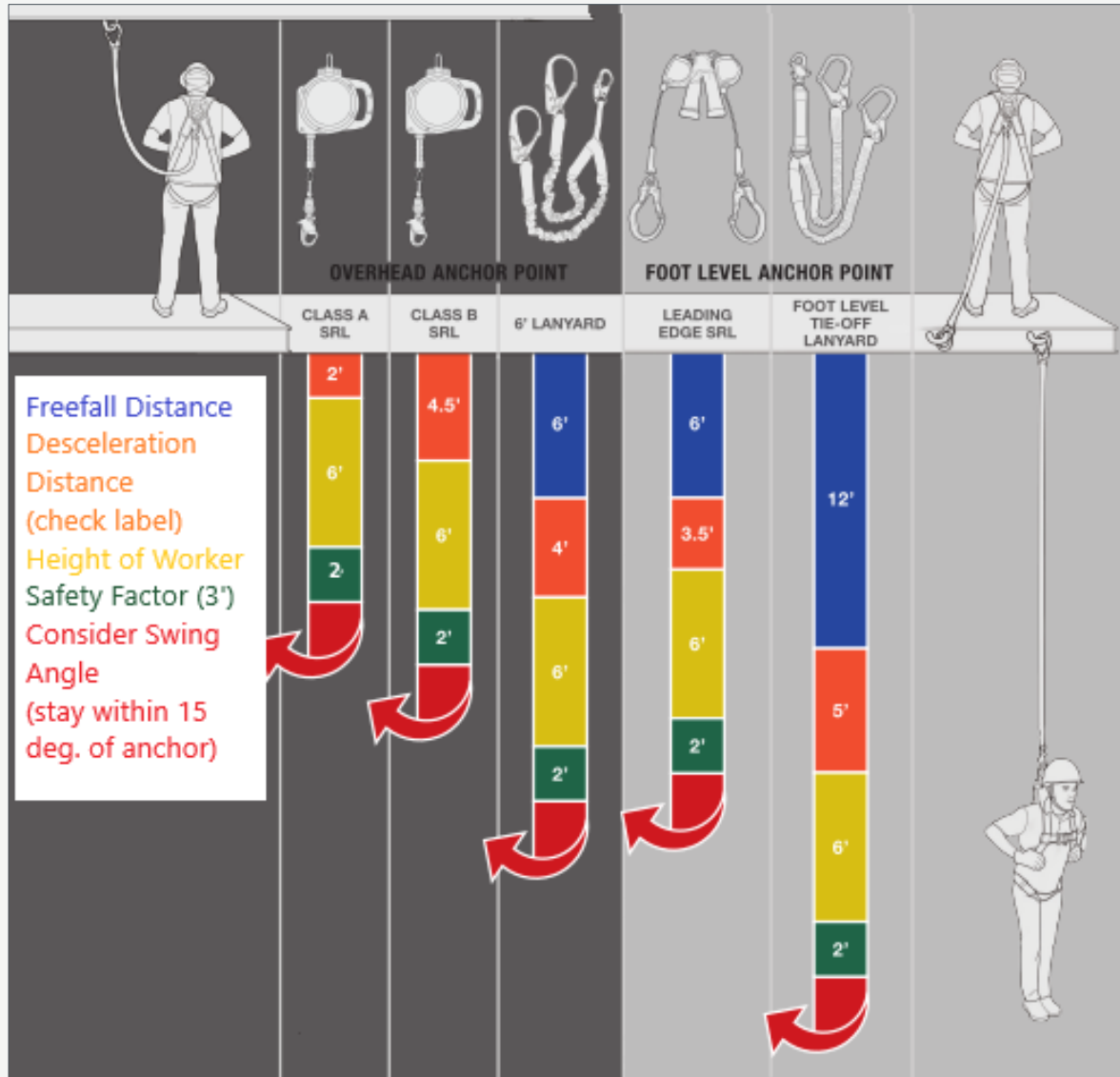
WARNING LINES: Flag off fall hazards and do not go beyond flags

- **15ft** from edge/fall hazard
- Sturdy and upright (34"–39" tall)
- Use PFAS if you go beyond flags.



Personal Fall Arrest Systems

Will your system work?



Calculate Fall Clearance

- Freefall distance
- Deceleration distance
- Height of worker
- Safety factor 2 ft

Inspect before use

- Ensure proper fit
- Check safety indicators
- Check hardware + webbing

Fall Protection

On Some Service Jobs

Some *service jobs* may fall under OSHA's General Industry OSHA standards: 1910.28(b)(13)

Fall protection for *Temporary & Infrequent Service Tasks* on low-slope roofs:

15+ ft from the roof edge

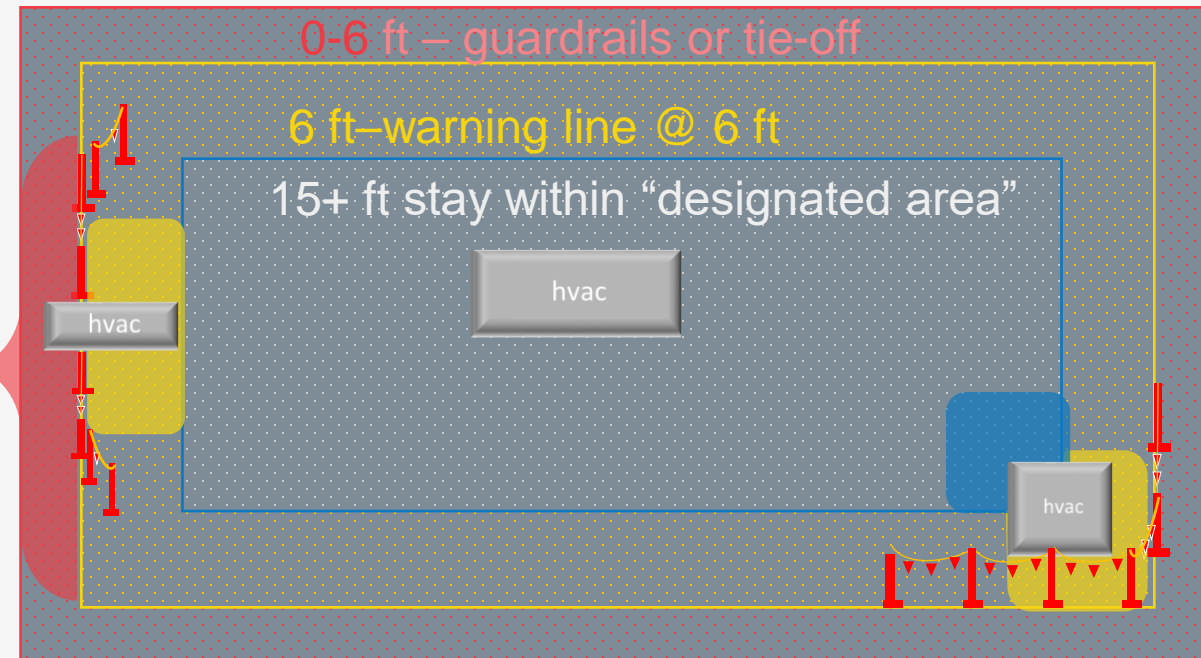
- No fall protection system required **if** you can maintain at least 15 ft distance from edge.
 - Enforce Work Rule: Stay 15 feet or more away from edge.
 - If can't maintain 15+ ft from edge, setup warning line at 6 ft or use tie-off.

6+ ft from the roof edge

- Use Warning Line at 6ft

0-6 feet or less from the roof edge (or any construction job)

- Use conventional fall protection (guardrails or tie-off)



Elevated Work

Ladders

- Check for defects
- Use 3 points of contact
- Stable footing
- Safe access
- Step ladders:
 - Use only when open and spreaders are locked.
 - Don't step on top 2 steps
 - Do not straddle
- Extension ladders:
 - 3 ft overlap in center
 - 3 ft extension over edge
 - Secured
 - 1:4 slope

Scaffold

- Use red/green tags to indicate use daily
- Inspect before use
- Fall protection tie-off required above 10ft without guardrails
- If 4h:1w, must be secured
- Only use ladder to access
- Do not use if not properly trained



Mobile Elevated Work Platforms

Scissor Lifts

- Inspect for defects + test run before use
- Check for work area hazards, slope, power lines
- Keep Feet on Platform
 - Never stand on rails, or use ladders in lifts
 - Latch chain/gate
 - Don't lean too far
 - Tie-off when needed
- Prevent tipping



Aerial Lifts

- 100% tie-off required
- Use SRL or restraint lanyards

Must be trained to operate Lifts

Prevent falling objects

- Tool tethers
- Barricades

Heavy Equipment

Review hazards

- Always wear your hi-vis vests around heavy equipment
- Operators: inform others of blind-spots and specific equipment hazards
- Give updates about route and activity changes
- Never assume operator sees you.
- Give them right of way.

Forklifts + Lulls

- Must be trained & authorized

Cranes, Rigging, Hoists

- Inspect slings + chains
- Use Certified Riggers
- Balance loads
- Use Tag-line
- Never stand under elevated loads





On March 8, an OSHA inspector ordered a worker out of a trench at a construction site in Mercerville, OH, (above, left) minutes before a portion collapsed (above, right).

Trench + Excavations

◆ Prevent Cave-ins

- Competent Person – inspect daily
- Standing water = evacuate + eliminate
- Excavated soil must be 2ft away from edge
- 4 feet deep
 - Exit ladder/ramp within 25 ft
 - Test air if potential for atmospheric hazard
- 5 feet deep –Protect
 - slope, bench, or trench box
- Barricades (6ft needs fall protection)

Welding/Hot Work

◆ Prevent Fires

- Wear welding hood + PPE
- Fire extinguishers -have on lifts during hot work
- Remove all flammables, use screens + fire blankets
- Use Hot Work Permit (site specific)
 - Fire watch 30min + after work complete



- Hot Work Permit

Electrical + Arc Flash/Blast

Electrical

- Trace sources & verify de-energized
- No exposed live parts
 - All temp. electrical + lighting must be above 8ft or in junction box:
- Use GFCI's, keep test log
- Extension cords:
 - Construction Grade
 - Protected
 - Keep off Ground
 - Don't "fix" cord ends
 - No damage

Arc Flash/Blast

- Do Not Work on live electrical over 50V.
 - Shut down, lockout, verify
- Energized work must complete the *Energized Elect. Work Permit*
 - Electrical Hazard Assessment
 - Arc Flash Hazard Assessment
 - Determine PPE
 - Arc Flash Suit, Rubber gloves (tested 6 months) + leather gloves



- Energized Electrical Work Permit



Remember:

- Don't' overload the cord
- Test GFCI's Daily
- 3rd Prong in place
- Check Cord Conditions

Lockout/Tagout The Control of Hazardous Energy

Required when:

- Removing/bypassing guards, interlock or safety
- Putting part of body in harm's way
- Performing any major service or maintenance work

De-energize

1. Notify workers
2. Shut down equip.
3. Isolate energy source
4. Lock/Tag
5. Release stored energy
6. Test to confirm shut down (return controls to neutral)



When in doubt, Lock it out!



Re-energize

1. Check that its safe:
equipment + employees
clear
2. Verify controls in
neutral/off
3. Remove locks + re-
energize
4. Notify work is done

Remember:

- Need LOTO equipment? Just ask!
- Follow site LOTO procedures.
- Locks should be standardized + contain your name
- Tag-out only if no lock is possible
- Never remove someone else's lock

Confined Space Entry

A CS is large enough to enter, not meant for continuous occupancy, and limited entry/exit.

IDLH Hazards = permit required CS



- Confined Space Entry Permit

Permit Required CS: If hazards are present or anticipated that could seriously harm or kill entrants.

Use Confined Space (CS) Permit

◆ Train Workers

- Entrant – goes in + works
- Attendant – stays out and monitors, performs non-entry rescue
- Supervisor – ensures hazard elimination + signs off
- Rescuers – trained for rescue

◆ Make Safe to Enter

- Purge + ventilate, test for toxic air
- Lockout Tagout
- Nearby hazards
- Chemical hazards

◆ Enter Safely

- Continuous Mechanical Ventilation
- Non-Entry Rescue setup
- Monitor Air



Rescue Plan

- ID Emergency Contacts
- All employees trained on procedures
- Rescue equipment on site + set up
 - Self Rescue
 - Non-entry rescue
 - Vertical
 - Horizontal
 - Entry rescue: SCBA respirators (911)

Remember: NEVER enter a confined space in an attempt to rescue a victim unless you are trained and have the appropriate equipment.

For every person who dies in a confined space, 2 more will die attempting to rescue.

Find a Hazard?

Stop work and notify supervisor.



• Hazard Concern Form

Health Hazards

Hazards:

Inhalation or exposure through dust or work practices can harm your health over time.

Control:

Use engineering controls (wet cutting + integrated vacuum systems), safe work practices, PPE, and good hygiene to prevent exposure. Vacuums should have HEPA filters, filter bags, and be emptied frequently.

Lead — safe work practices

- ◆ Inhale lead dust or fumes
- ◆ Chipping paint, welding, contaminated drinking water
- ◆ Causes developmental, neurological, and reproductive harm

Silica — exposure control plan

- ◆ Inhale dust containing silica
- ◆ May cause silicosis of the lungs over time

Asbestos: Do not work on or near disturbed asbestos material

- ◆ Inhale or ingest fibers
- ◆ Friable/crumbling fiber-like material
- ◆ Physically disrupts cell function in lungs, causing cancer or diseases

Examples of Asbestos

Suspect Asbestos?
Stop! Tell your supervisor.
Do not disturb material.



SEAM TAPE ON
FURNACE DUCT
(BOAT WORKS,
HOPKINS MARINE
STATION)

ASBESTOS CLOTH
AT EXHAUST DUCT &
FAN CONNECTION
(HERRIN LAB)



Canvas Duct



Ceiling tile pucks and
wall adhesive containing
asbestos



Asbestos enters the body when broken apart and friable, when it can be inhaled or ingested. It gets trapped in the lungs and disrupts cell function, and may lead to asbestosis, lung disease or cancer.

WHAT IS ASBESTOS?

Asbestos is type of mineral classified by the way it breaks apart into thread-like structures. Because it resembles thread, it can be made into fabrics that are flame resistant. It is also very strong. You will often find it in hot areas that need fire resistant fabrics, or very durable materials like adhesives.

Prevent Exposure:

- Heed all warning signs and do not damage.
- Containment: Ensure area is thoroughly blocked with plastic with negative pressure. Area or sections should be encased and area wetted down to prevent airborne particles.
- Wear Tyvek Suit. Wash your hands and face before eating, drinking or smoking, and never smoke in an area with potential contamination.
- Change your clothes before going home, you don't want to bring it home to your family.



Grease duct gasket, pipe
"lagging" and insulation
containing asbestos



Congratulations!

You have completed
NAC's Safety Orientation!

Make sure you have PPE for your jobsite:

- Safety glasses
- Hard hat
- Hi-Vis Vest (What size?)
- 2 pairs cut resistant gloves (What size?)
- Ear plugs (also on-site)

Fall Protection (Service Employees)

- Harness
- 6 ft retractable or shock absorbent lanyard
- D-ring Anchor Strap or other Anchorage device

nac-hvac.com/employee-login/

- Sign up for weekly Toolbox Talks
- Access links for paystubs, safety, and other info.

Contact the Safety Coordinator with Questions



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