WELCOME

Risk Management Workshop for Highway Supervisors

Presented by VLCT PACIF Field Services Team

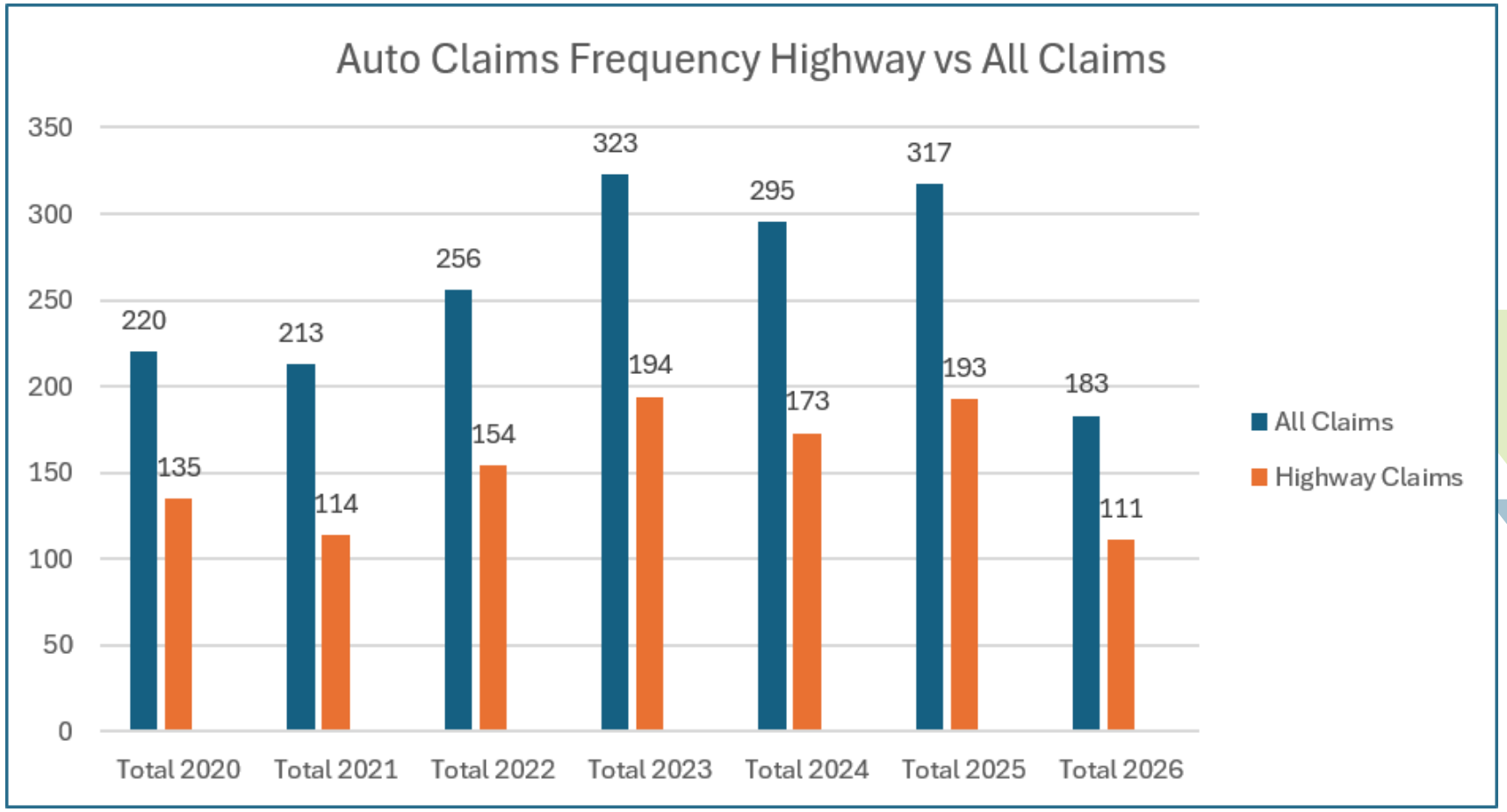
**Zander Yensan, Larry Smith,
Lia Adame, Christine Trombley Marsh
& Julie McKenzie**

Vermont League of Cities and Towns

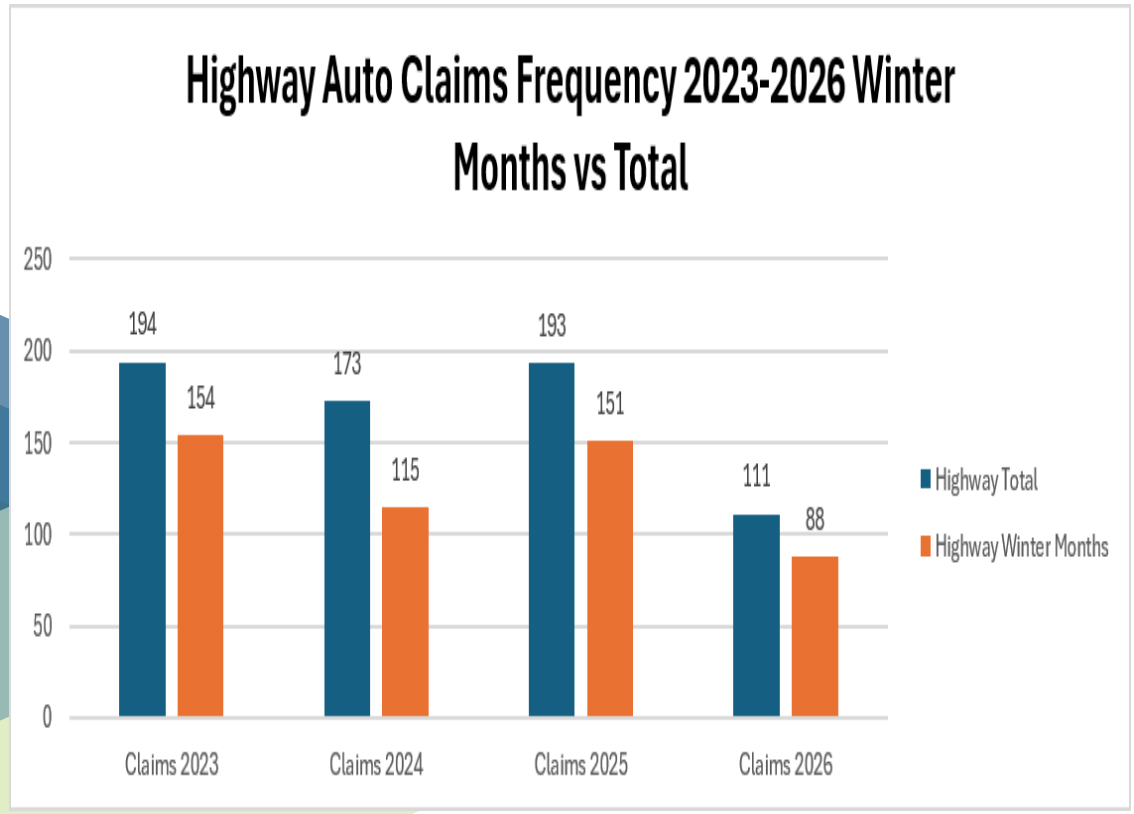
Agenda

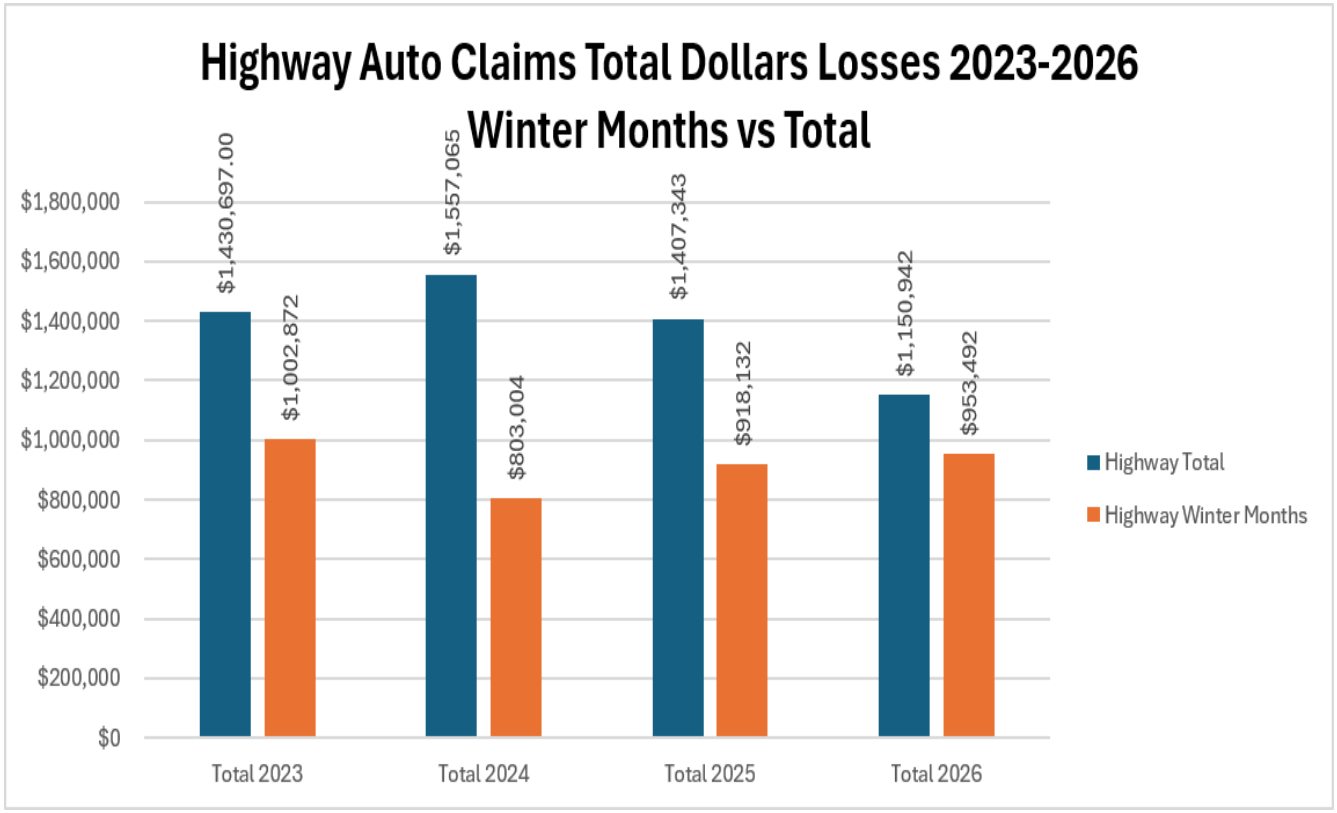
- Winter Claims History
- Driver/Plowing Safety
- VOSHA
- Managing Your Highway Team
- Questions/Answers

Highway Auto Claims vs All Departments 2020-2026

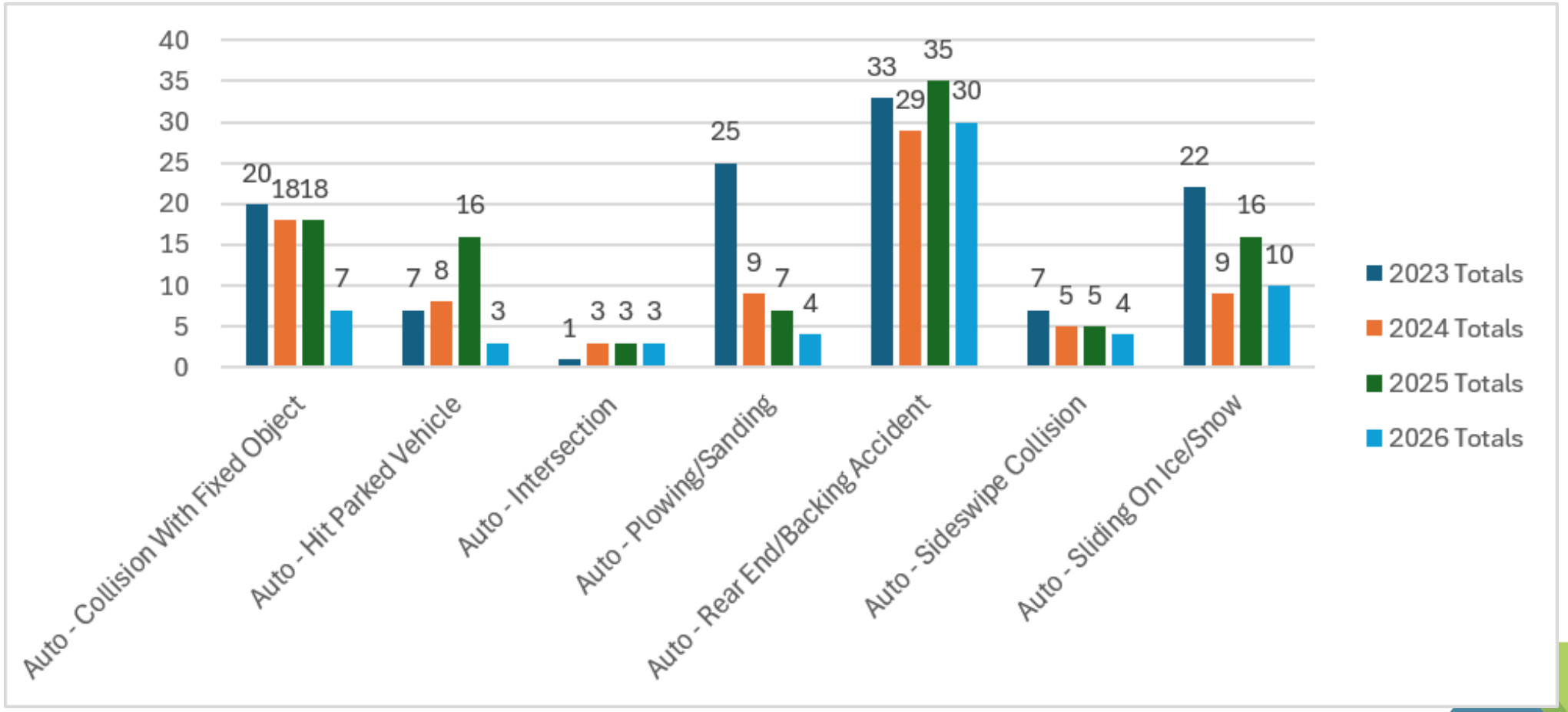


Highway Auto Claims Total Losses Winter Months 2023-2026

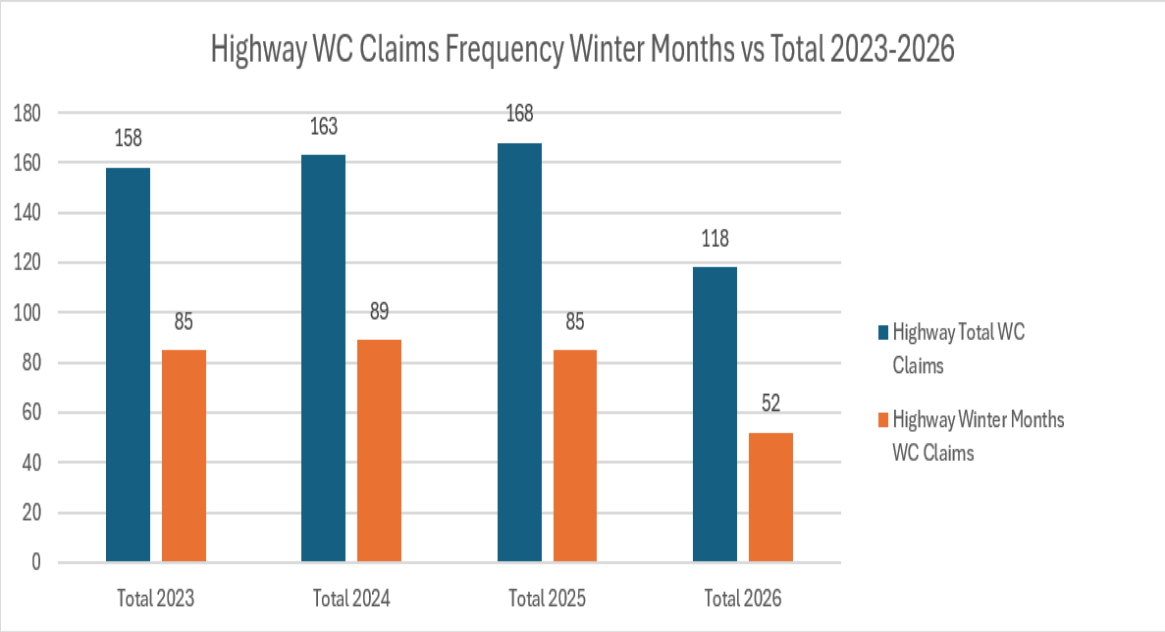


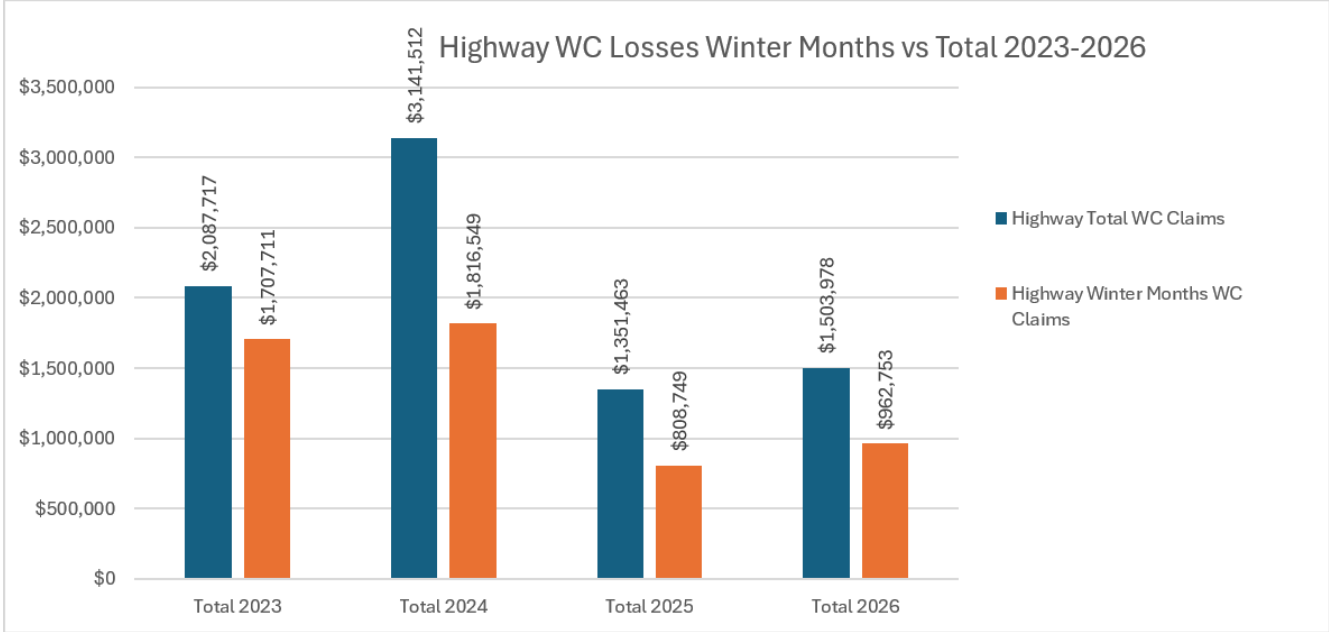


Highway Winter Auto Claims by Loss Agent



Highway WC Claims Total vs Winter Months





Introduction & Objectives



Our primary goal is keeping our community safe while ensuring you return home safely at the end of every shift.

Rural winter maintenance presents unique challenges, from unpredictable weather to long hours on remote roads.

Avoid backing whenever possible

Identify critical pre-season and pre-trip inspections.



Master defensive driving techniques specific to steep hills and rural roads.

Recognize the signs of operator fatigue during long 12-hour shifts.

Establish clear two-way radio communication protocols.

The Reality of Plowing in Vermont

- **Municipal operations differ significantly. Understanding these unique risks is the first step toward safety.**
- **Changing Road Layouts: Transitioning quickly from paved roads to narrow, unpaved gravel routes.**
- **Hidden Obstacles: Drifting snow masking ditches, mailboxes, culverts, and low-hanging branches.**
- **Limited Visibility: Whiteout conditions, blowing snow, and lack of ambient street lighting.**
- **Extreme Terrain: Navigating steep hills, sharp switchbacks, and blind crests with a heavy, shifting load.**



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Pre-Trip Inspection Checklist

- Safety begins before you turn the key. A breakdown on a remote rural road during a blizzard is a severe safety hazard.
- Fluids & Fuel: Top off fuel, DEF, windshield washer fluid, oil, and coolant.
- Visibility Elements: Clear all snow and ice from windows, mirrors, headlights, and strobe lights.
- Blade & Cutting Edges: Inspect the plow blade, shoes, wing plows, and bolts for severe wear or damage.
- Tires & Traction: Check tire pressure and tread depth; inspect tire chains to ensure they are ready for steep hill applications.
- Brake Systems: Perform a rigorous air/hydraulic brake check; verify the auxiliary brake functions perfectly.
- Bed down/Plow and Wing Up: Make sure the Dump Body is down, and the Plow and Wing are up before backing out of the garage



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Conquering Steep Hills & Challenging Terrain



- Gravity and ice are a dangerous combination. When handling steep rural grades, technique matters more than speed.
- Select the Right Gear Early: Always shift into a low gear before you start descending or ascending a steep hill. Never shift gears on the incline.
- Manage Auxiliary Brakes: Use engine/exhaust brakes with extreme caution on slick descents; if the drive wheels lock up, turn the auxiliary brake off immediately to regain steering.
- Plow Placement: When going downhill, keep the blade low to catch the road if you start to slide, but avoid catching dry pavement edges that could jerk the truck.
- Give Way on Inclines: Yield to oncoming traffic or loaded trucks climbing uphill—they cannot easily stop or regain momentum.

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Managing the 12-Hour Shift



A 12-hour shift pushes the limits of human endurance, especially under high-stress storm conditions.



The Cumulative Toll: Fatigue builds aggressively after the 8th hour of a shift. Your reaction time and decision-making skills naturally decline.



The 'Wall': The human body experiences natural energy dips between 2:00 AM and 6:00 AM. Extra caution is required during these hours.



Micro-Sleeps: Nodding off for even 2 seconds at 30 mph means traveling nearly 90 feet completely blind.

Recognizing and Fighting Fatigue

Knowing when you are at risk can save lives. Fatigue is a physical reality, not a mental weakness.



Signs of Danger:

- Frequent yawning, heavy eyelids, or rubbing your eyes.
- Drifting from your lane, missing turn-offs, or grazing the shoulder.
- Inability to remember driving the last few miles.

Prevention and Coping Strategies:

- The 12-Hour Reset: Prioritize strict rest during your 12 hours off—limit chores, screen time, and distractions.
- Hydration over Sugar: Avoid heavy, greasy meals and high-sugar energy drinks that cause a crash; opt for water, coffee in moderation, and protein-rich snacks.
- Tactical Breaks: If you feel a micro-sleep coming on, find a safe spot to pull over, step out into the ***cold air***, and walk around the truck for 2 minutes to reset your internal clock.
- In extreme situations, it is always safer to pull over in a safe location and rest. Communicate location and situation to Highway Team and seek assistance ASAP.

Working Together: Two-Way Radio Protocols

- Your two-way radio is your lifeline. In remote areas, structured communication prevents accidents and ensures help is always on the way.
- Rely on your two-way radio rather than cell phone. Cell phones are driving distractions!
- Mandatory Check-ins: Establish a strict, timed check-in rule (e.g., every 60 minutes) with dispatch or your shift partner, especially when entering dead zones or treacherous hill routes.
- Clear Hill Alerts: Broadcast your position on the radio before tackling known dangerous sections (e.g., 'Plow 4 entering Smith Hill route, descending northbound').
- Keep Channels Clear: Use brief, professional, and clear language. Leave airtime open for emergency calls.
- The 'No Contact' Protocol: If an operator misses a scheduled radio check-in, dispatch must immediately initiate a wellness check via backup channels or send a trailing unit.

Supervisor Responsibilities and Documentation

- Conduct and document safety meetings
- Verify driver qualifications and training
- Review vehicle inspections and deficiencies
- Investigate incidents and maintain records
- Enforce PPE and safe-driving requirements



Late and Mud Season Pitfalls



- Mentor new crew on historic soft spots and transition areas
- Explore use of Mud Plow/Blade equipment to prevent dig-ins
- Lower speed, remain vigilant on slopes
- Adjust skid shoes to float over loose gravel/soils
- Remain aware of additional stress on suspension or hydraulic systems
- “I’m sick of winter” factor



Backing and the Winter Problem, Pt. I

- Grit and snow rapidly affect rear-facing cameras which complicate backing
- There is no easy solution for standard cameras other than exiting vehicle to clean it off
  - Residual Risk Factors: Slips or other
- Potential future tech: Camera cleaners
  - RVS Brand system
  - Lintech Brand system
  - Lens Lizard (Vermont Inventor)



Backing and the Winter Problem, Pt. II

- Forgetting to lift wings when backing out of Highway Garages remains a costly mistake.
  - Develop Checklists – “Be a Pilot”
  - Use Spotters
- Driving too fast, skidding, or losing the 4 corners of the vehicle are common issues
  - When in doubt, straighten out or go around and try again. What would a pilot do?





Interactive:

Safety Committee Case Study

A municipal snowplow is clearing snow from a four-way intersection during a winter storm. A gas station and a town park parking lot are located adjacent to the intersection. Before backing up to make another pass, the driver noticed that the vehicle's rearview camera was obstructed by dirt and therefore could not be used to see behind the truck. The driver checked the truck's mirrors several times before beginning to back up. However, while backing through the intersection, the truck suddenly struck a vehicle that had entered the intersection.



Emergency Protocols

When things go wrong, a structured plan keeps a bad situation from becoming a disaster.

1. Stay with the Vehicle: If you get stuck on a hill side or break down in a severe storm, your truck is your primary shelter.

2. Radio for Help Immediately: State your exact location, the direction your truck is facing, and any immediate slide or traffic hazards.

3. Secure the Truck: Set the parking brake, drop all plow blades completely to the ground to anchor the vehicle, and turn on all hazard and strobe lights.

4. Keep Exhaust Clear: If keeping the engine running for heat, ensure the exhaust pipe is entirely clear of drifted snow to prevent carbon monoxide poisoning.



Summary & Discussion

Remember: Speak up if you are unsafe to drive. We all go home safe.



- **Preparation eliminates failures on the road.**
- **12 hours is a marathon: Pace yourself, monitor your fatigue, and use your two-way radio to stay connected.**
- **Safety always takes priority over speed of clearance.**

Part II: Common VOSHA Violations in Municipal Operations

Presented by VLCT PACIF Loss Control Consultants

Zander Yensan & Larry Smith

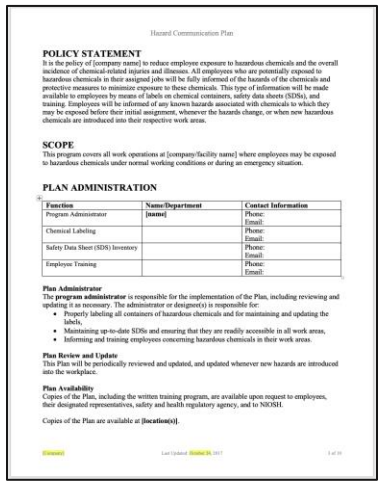
Vermont League of Cities and Towns



Common VOSHA Violations in Municipal Operations

- Hazard Communication (29 CFR 1910.1200) Hazard Communication Toolkit
- Lockout/Tagout (29 CFR 1910.147) Lockout Tagout Toolkit
- PPE (29 CFR 1910.132) PPE Assessment Toolkit
- Emergency Exits (29 1910 Subpart E)
- Fire Extinguisher Maintenance (29 CFR 1910.157)
- Eye Wash (29 CFR 1910.151)
- Recordkeeping (29 CFR 1904) VOSHA recordkeeping-reporting-requirements
- Machine Guarding (29 CFR 1910.212)

Hazard Communication (HazCom)



Hazard Communication Plan

POLICY STATEMENT

It is the policy of [company name] to reduce employee exposure to hazardous chemicals and the overall incidence of chemical-related injuries and illnesses. All employees who are potentially exposed to hazardous chemicals in their assigned jobs will be fully informed of the hazards of the chemicals and protective measures to minimize exposure to these chemicals. This type of information will be made available to employees by means of labels on chemical containers, safety data sheets (SDSs), and training. Employees will be informed of any known hazards associated with chemicals to which they may be exposed before their initial assignment, whenever the hazards change, or when new hazardous chemicals are introduced into their respective work areas.

SCOPE

This program covers all work operations at [company/facility name] where employees may be exposed to hazardous chemicals under normal working conditions or during an emergency situation.

PLAN ADMINISTRATION

Function	Name/Department	Contact Information
Program Administrator	[name]	Phone: Email:
Chemical Labeling		Phone: Email:
Safety Data Sheet (SDS) Inventory		Phone: Email:
Employee Training		Phone: Email:

Plan Administrator

The **program administrator** is responsible for the implementation of the Plan, including reviewing and updating it as necessary. The administrator or designee(s) is responsible for:

- Properly labeling all containers of hazardous chemicals and for maintaining and updating the labels,
- Maintaining up-to-date SDSs and ensuring that they are readily accessible in all work areas,
- Informing and training employees concerning hazardous chemicals in their work areas.

Plan Review and Update

This Plan will be periodically reviewed and updated, and updated whenever new hazards are introduced into the workplace.

Plan Availability

Copies of the Plan, including the written training program, are available upon request to employees, their designated representatives, safety and health regulatory agency, and to NIOSH.

Copies of the Plan are available at **[location(s)]**.









Written Program

- Roles and Responsibilities
- Accountability

Update SDS Book

- Table of Contents
- In order easy to access

Flammable Liquid Cabinet

- Contents listed
- Liquid/Gasses don't intermingle

Secondary Containers

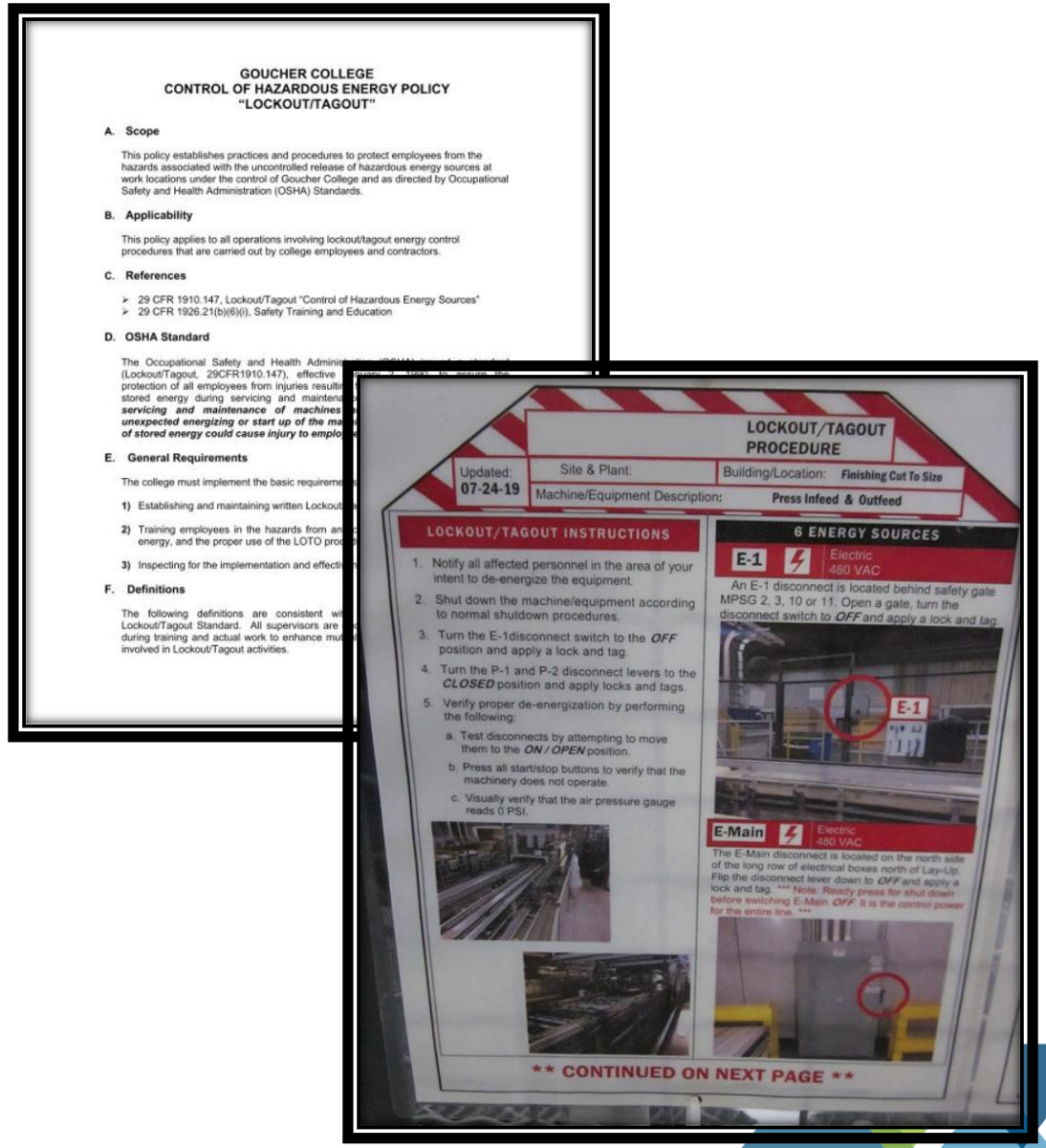
- Proper Labeling
- Applied to any container transfer

Lockout Tagout

Written Policy

Written Procedures

Employee Training
Annual Audit (Doc)



GOUCHER COLLEGE
CONTROL OF HAZARDOUS ENERGY POLICY
"LOCKOUT/TAGOUT"

A. Scope

This policy establishes practices and procedures to protect employees from the hazards associated with the uncontrolled release of hazardous energy sources at work locations under the control of Goucher College and as directed by Occupational Safety and Health Administration (OSHA) Standards.

B. Applicability

This policy applies to all operations involving lockout/tagout energy control procedures that are carried out by college employees and contractors.

C. References

- 29 CFR 1910.147, Lockout/Tagout "Control of Hazardous Energy Sources"
- 29 CFR 1926.21(b)(6)(i), Safety Training and Education

D. OSHA Standard

E. General Requirements

F. Definitions

LOCKOUT/TAGOUT PROCEDURE

Updated: 07-24-19 | Site & Plant: | Building/Location: Finishing Cut To Size | Machine/Equipment Description: Press Infeed & Outfeed

LOCKOUT/TAGOUT INSTRUCTIONS

1. Notify all affected personnel in the area of your intent to de-energize the equipment.
2. Shut down the machine/equipment according to normal shutdown procedures.
3. Turn the E-1disconnect switch to the *OFF* position and apply a lock and tag.
4. Turn the P-1 and P-2 disconnect levers to the *CLOSED* position and apply locks and tags.
5. Verify proper de-energization by performing the following:
   a. Test disconnects by attempting to move them to the *ON / OPEN* position.
   b. Press all start/stop buttons to verify that the machinery does not operate.
   c. Visually verify that the air pressure gauge reads 0 PSI.

6 ENERGY SOURCES

E-1 Electric 480 VAC

An E-1 disconnect is located behind safety gate MPSG 2, 3, 10 or 11. Open a gate, turn the disconnect switch to *OFF* and apply a lock and tag.

E-Main Electric 480 VAC

The E-Main disconnect is located on the north side of the long row of electrical boxes north of Lay-Up. Flip the disconnect lever down to *OFF* and apply a lock and tag. *** Note: Ready press for shut down before switching E-Main *OFF*. It is the control power for the entire line. ***

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Personal Protective Equipment Assessment (PPE)

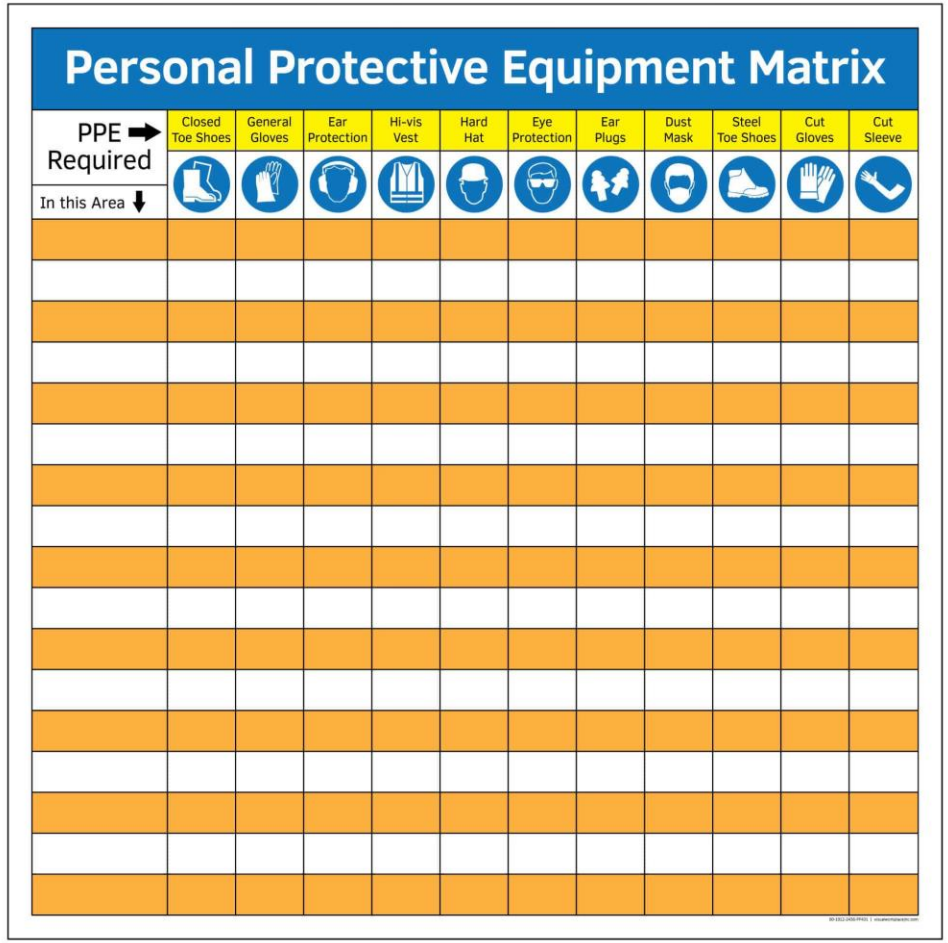
Assessment of Duties/Job Functions

Proper PPE for Job

Written PPE Assessment

Employee Training

Annual Verification



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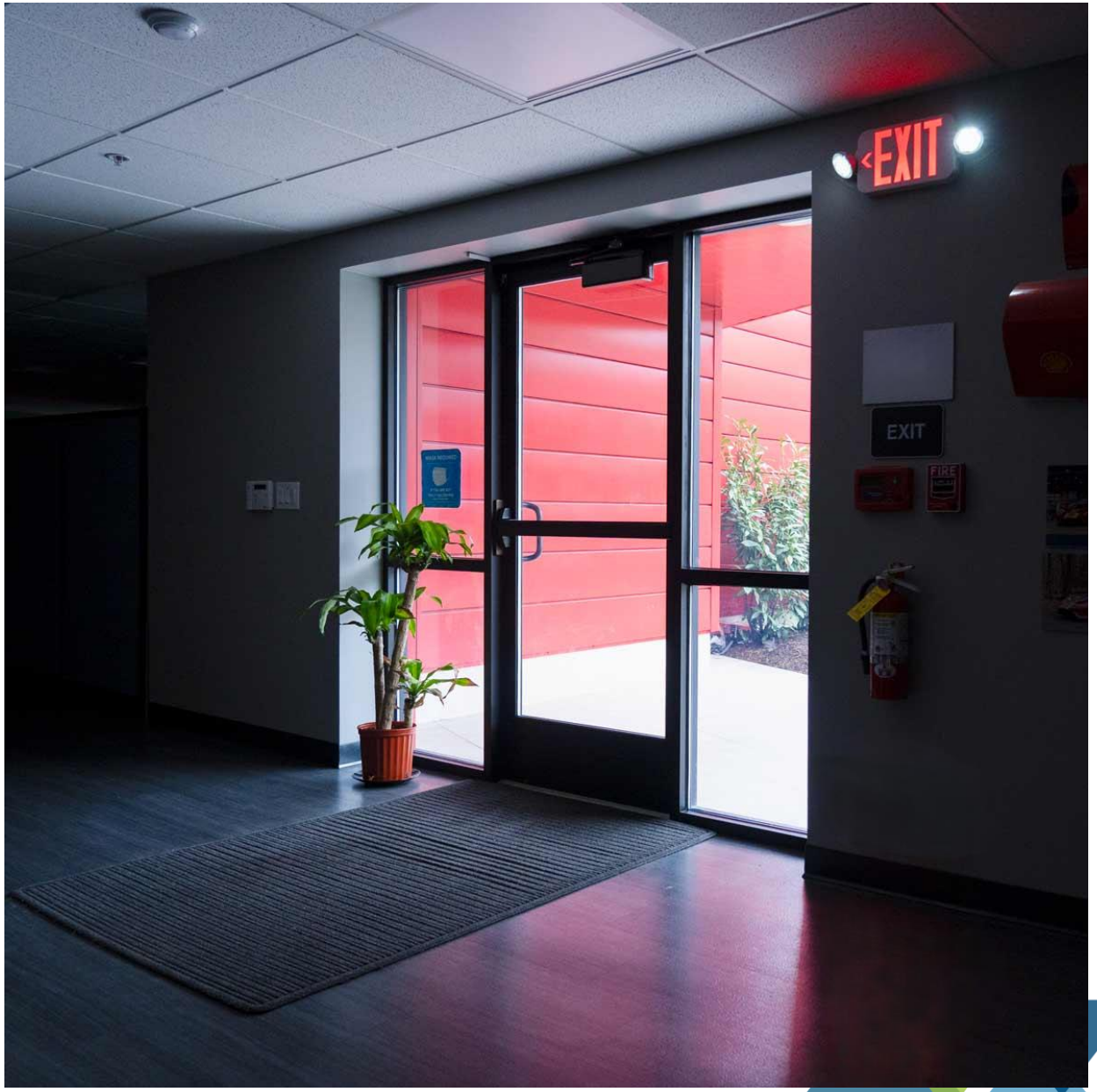
Emergency Exits

- Proper Clearances
- Testing of lights/Signs
- Lighting



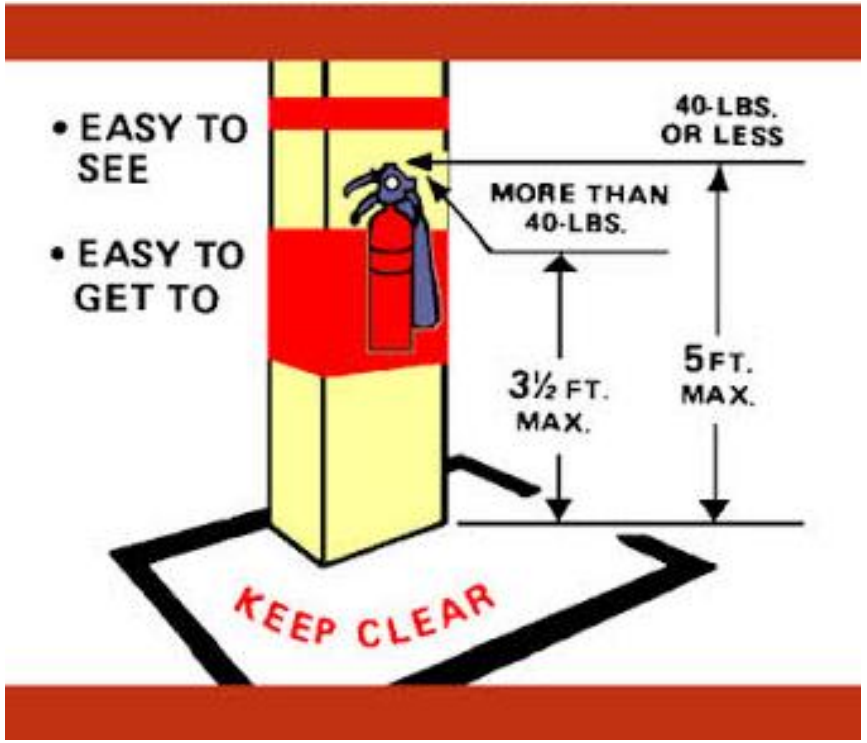
Fire Extinguishers

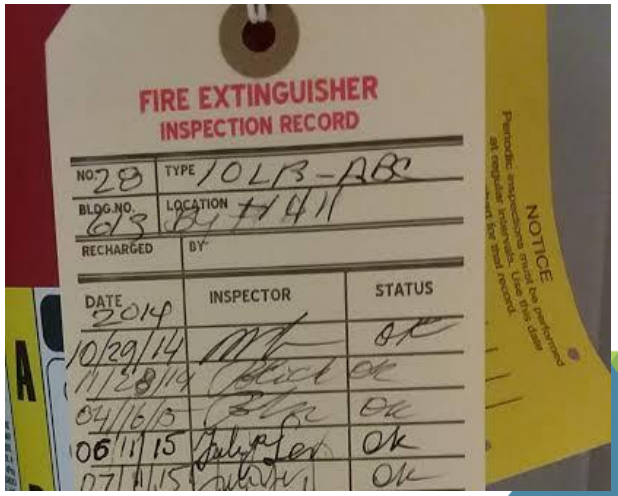
Proper Height and Clearance

- Not on the floor
- No more than 60" high
- 36x36" Clearance Zone
- Extras marked as spares keep them together
- 1 every 75 travel feet resetting at each floor and through doors, (excluding bathrooms)

Monthly/Yearly Inspections

- Monthly checks by staff documented on tag
- Vendor annual inspection





Eye Wash

Clear access and height specs (water crests 33-53”)

Weekly Activation of Plumbed Units

Document Weekly Checks

If not plumbed, is the solution expired?

Documentation when it was last changed

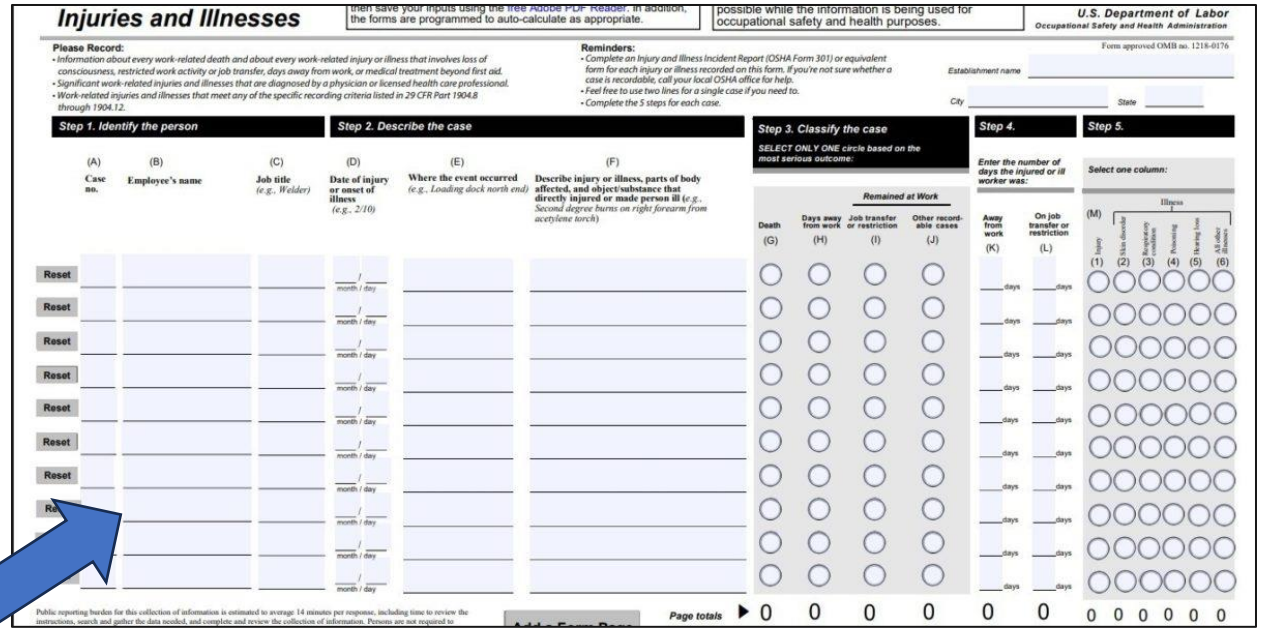


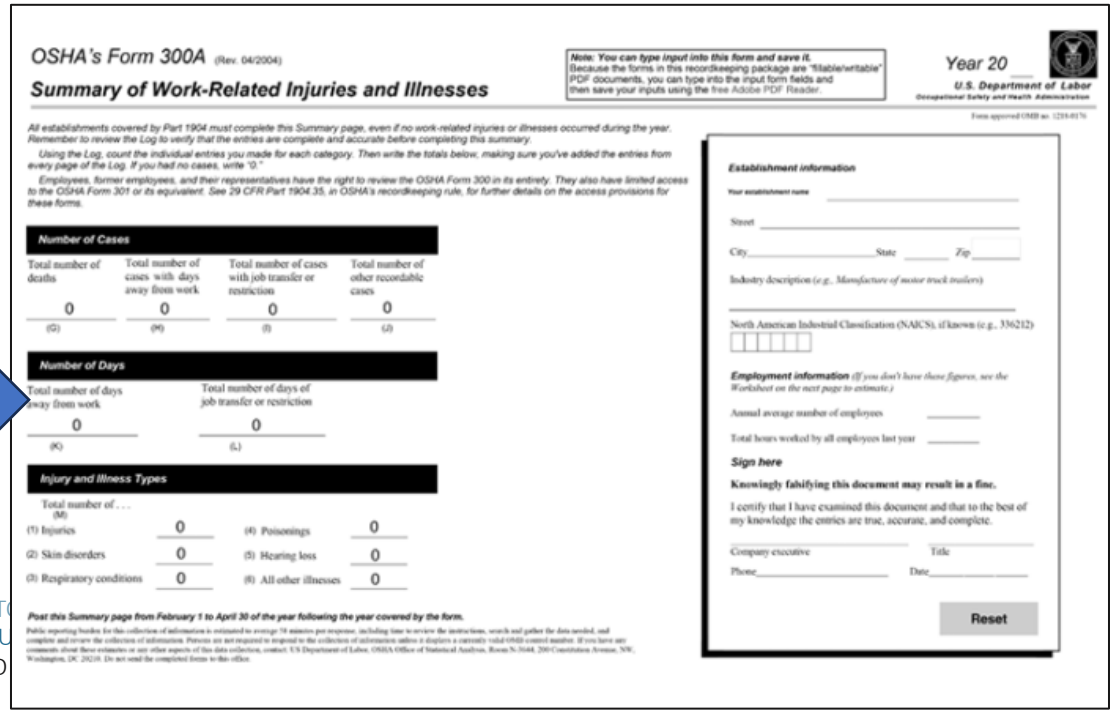
Record Keeping

How many employees do you have?

OSHA 300 Log

OSHA 300A





Machine Guarding

Has Guard been removed?	
Bench Grinder	• 1/8” Work Rest; 1/4” Tongue Guard
Drill Press	• Needs to have a guard • Needs to be anchored





Intermission: Trivia Questions

1) True or False: A municipal highway employee may enter a trench that is exactly 5 feet deep without a protective system, provided the soil appears stable and the excavation has been inspected by a supervisor.

1A) False. Protective systems are required at 5 feet or deeper, unless the excavation is made entirely in stable rock (e.g., granite quarry). An experienced supervisor may (should) opt to use protective systems well under 5 feet depending on the conditions.

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2) Under OSHA's excavation standard, what two elements must a designated competent person possess to oversee trenching operations?

2A) i) Ability to identify existing and predictable hazards based on their experience, knowledge and training; and ii) Authority to take prompt corrective action.

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3) True or False: When an employee performs maintenance underneath a raised dump truck body, setting the hydraulic controls to the off position is sufficient protection against the dump body accidentally lowering.

3A) False. Dump bodies must have a permanently attached positive support (e.g., Dump Lock) capable of being locked in position during maintenance or inspection.

Intermission: Trivia Questions

4) Before an employee enters a permit-required confined space, such as a municipal sewer manhole, what three atmospheric conditions must be evaluated through atmospheric testing?

4A) Oxygen level, flammable gases/vapors, and toxic gases/vapors.

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5) True or False: During an excavation, a competent person must inspect trenches after it rains.

5A) True. Inspections are required before work, as needed during the shift, and after rainstorms or other hazard-increasing events.

Managing Your Highway Team

Julie McKenzie
Deputy General Counsel & Director, Field Risk Services

Vermont League of Cities and Towns/PACIF

Some disclaimers!



- Mind relevant CBAs and policies
- Listen to YOUR lawyer! This presentation is educational, not legal advice.
- Please jump in with questions, but not specific, identifiable situations in this group discussion

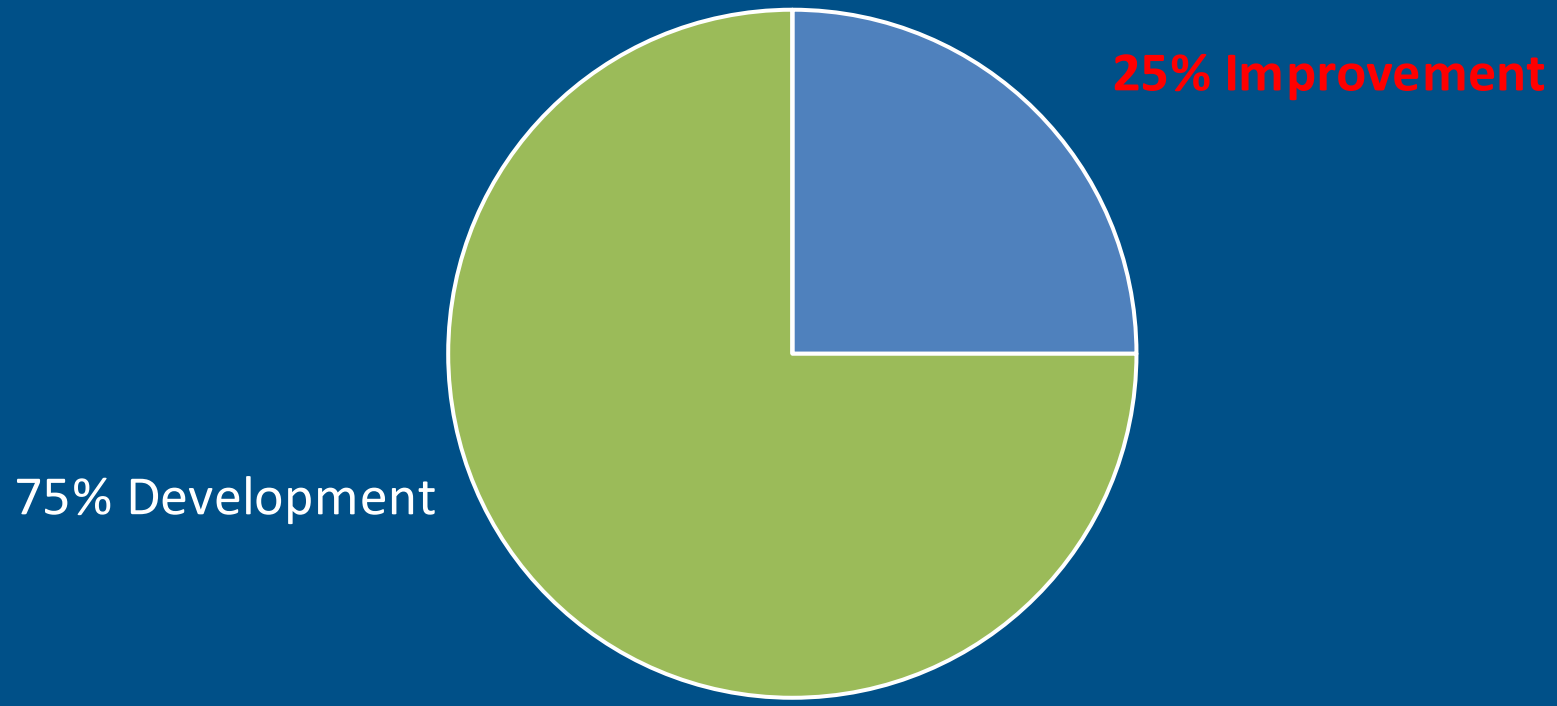
Why is effective performance management important??

- Team dynamics: turnover, healthy atmosphere, employee fulfillment and ownership of work
- Meeting productivity expectations
- Your team is a reflection on your leadership
- Work is visible to the public
- SAFETY

But……..

I can’t hire Highway employees!!!

In a perfect world, performance management is…



First, let's talk about fairness

- **Assumption**: work should be a place that is fair, where people can perform their job with dignity and respect.

- What is a fair approach to performance management?
  1. Do employees know and understand the employer's expectations?
  2. Did an employee fail to meet those expectations? How do you know? (Did you ask the employee about it? Gather other facts and information?)
  3. Is the employer's response (counseling, discipline, PIP, etc) proportional to the problem?
  4. Have other employees been treated similarly in similar circumstances?

- It turns out that this approach to fairness is supported by the law! ("Just cause" or "non-discriminatory business reason")
  - BUT WAIT! What about "AT WILL" employment????

Misconduct vs. Poor Performance

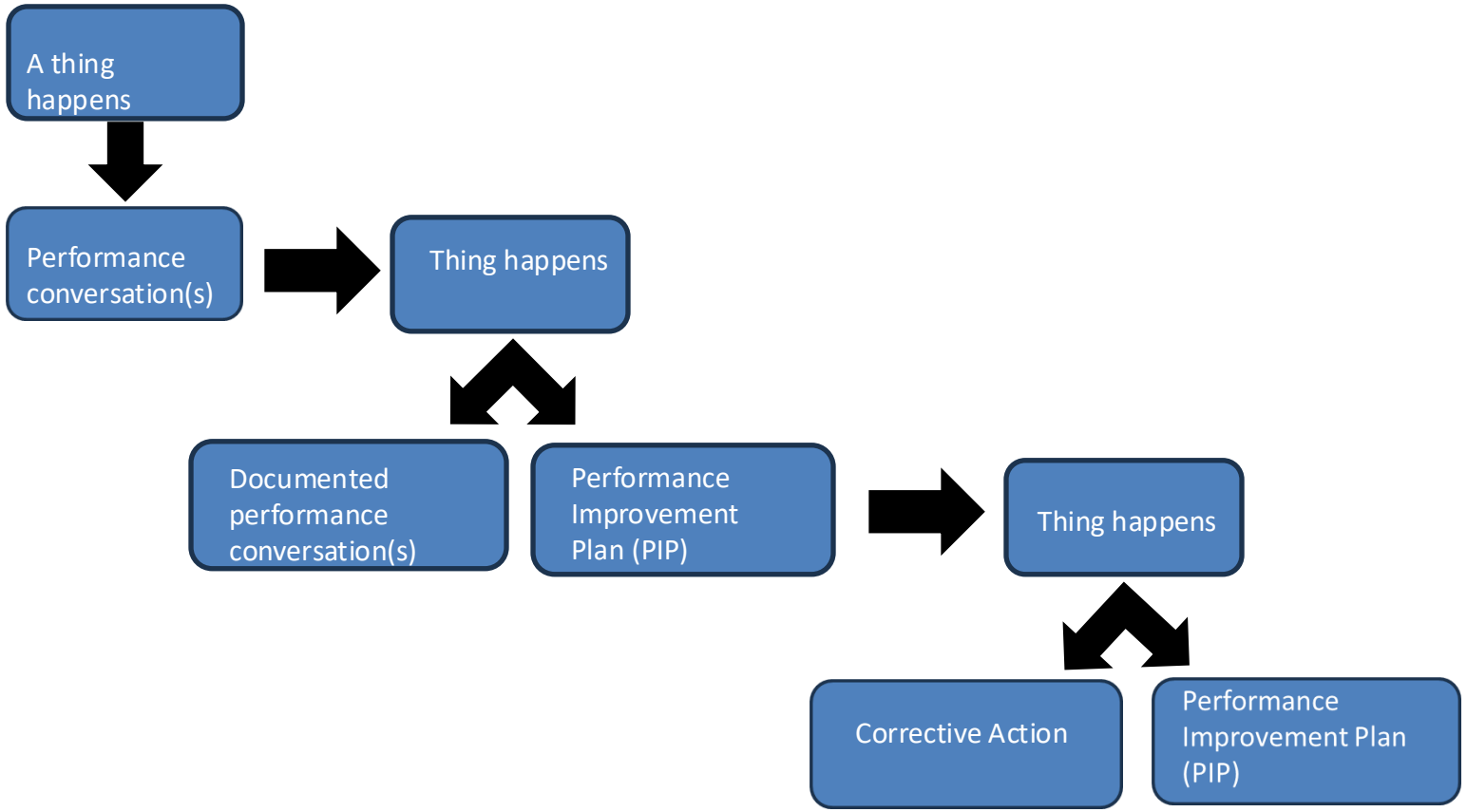
Misconduct

- Lying
- Theft
- Misuse of worktime (sleeping, watching movies in the truck on work time, etc)
- Falsifying town documents
- Harassment, discrimination
- Disruptive behavior
- Fighting at work
- Attendance, no-call/no-show
- Insubordination
- Unprofessional appearance

Poor Performance

- Lacking in skills/competencies necessary for the job
- Missing deadlines
- Careless errors
- Low productivity
- Poor customer service skills
- Incomplete assignments
- Unresponsive to emails/phone calls
- Unprofessional demeanor
- Failing to maintain a required license

Lifecycle of Performance Improvement Actions



Note: Your exact approach and progression will be based on the facts and circumstances of the thing. For some misconduct, you can bypass the 2 middle tiers and go straight to corrective action. For minor performance concerns, you may have several performance conversations before you begin to document.

Performance Improvement Conversations (informal counseling)

- Always assume the employee's GOOD FAITH
  - I'd like to talk to you about…; I noticed that…; I want to discuss…
- Explain what's happened, be specific and talk about the organizational/Town impact
  - This morning when you [did the thing], it resulted in [what].
- Ask the employee to help you understand and listen with an open mind
  - Can you help me understand what happened?
- Explain your/the Town's expectation and the "why"
  - How could you have handled that differently?
  - Going forward, the Town/I expect [what]. This will ensure that [the why].
- Encourage and look to the future
  - I believe you can make this change…Let's meet again to follow-up…How can I support you?...What do you think you can do to improve this?

Other tips:

- Be prepared
- Consider the location and the timing
- Send a follow-up email?

Documented Performance Conversation

All the same points as the informal counseling, and

- at the end of the conversation add comments about the consequences if the employee does not address the concern
  - The next step will be corrective action, please work to prevent this next time.
  - Your failure to meet the expectation will result in corrective action.
- hand the employee a letter or follow-up with an email titled “Documented Conversation,” describing what’s happened, the history of counseling conversations, the current conversation and the potential future consequences.
  - Be clear that this ISN’T DISCIPLINE, and that your hope is that by formalizing the conversation you are making expectations clear to prevent future discipline.
  - Cc the Personnel File

Corrective Action

- Written Warning, Unpaid Suspension (1, 3, 5 days) (or a Final Written Warning), Demotion, Separation
- Generally fair to progressively move through escalating steps
  - For serious misconduct, bypass earlier steps and escalate to a Suspension or Separation
- Conduct an investigation?
- Contact counsel?
- ALWAYS ask employee what happened, ask for their side, before committing to an action
- Non-disciplinary paid administrative leave? (by a letter)
- Explain the CA in a letter to the employee
- Any appeal/due process rights?

Performance Improvement Plans

- Can be used anytime
- Appropriate when the employer has a good faith belief that the employee has the ability to be successful and that the employee will engage with the process in earnest
- For poor performance NOT misconduct
- Requires time commitment by the leader
- In writing

Performance Evaluations

- Frequency
- Effectiveness of the tool you're using
- Are your leaders trained in completing and delivering effective performance evaluations?
- Do employees have an opportunity to respond?

Questions?

Upcoming Events!

November 19, 12p-1p (virtual)
Workplace Matters: Data-driven Leadership
https://www.vlct.org/training-events-calendar

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Conclusion: Trivia Questions II

6) During Lockout/Tagout of equipment under maintenance, what three objects should be incorporated whenever possible?

6A) A LO/TO designed lock, a tag or means of identification/providing information on the repair, and a device that fits the application (e.g., breaker, valve, plug cover, etc.)

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7) True or False: OSHA 1926 (Construction) requires employees engaged in construction activities to wear protective footwear when working in areas where there is a danger of foot injuries from falling or rolling objects, objects piercing the sole, or electrical hazards.

7A) True. OSHA requires municipal highway employees performing road construction activities, including paving, culvert installation, and operating around heavy equipment, to wear protective footwear.

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8) True or False: MSDS documents for WD-40 are acceptable to have in SDS chemical information binders under OSHA 1910.1200 HazCom.

8A) False. MSDS documents are out of date for mainstream chemicals and should be replaced with newer, uniform, SDS docs.

Conclusion: Trivia Questions II

9) True or False: Under OSHA construction regulations, equipment with an obstructed rear view must have an audible reverse alarm or be backed up only when an observer signals that it is safe to do so.

9A) True. An audible reverse alarm or an observer signaling that it is safe to back up is required when rear visibility is obstructed.

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10) Consistent with industry best practice, it is the position of VLCT-PACIF that ladders be at least of this class and/or weight capacity rating:

10A) Type IA, 300lbs. A 6’ Type IA can cost just $10 more than lower capacity Type II units.

Questions/Survey

