

# A FOCUS ON SAFETY DURING WINTER MAINTENANCE OPERATIONS

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Winter operations are a backbone of West Virginia street and roadway departments; focusing on safety while conducting these operations is a must. Winter weather inherently poses various hazards, such as cold weather, poor visibility (both when driving on the roads and in the agency's yard), long shifts, working in the dark, inexperienced drivers... the list goes on and on. While we can't control the weather and some of these other hazards, there are things that can be done to enhance safety.

## SNOW PLOW OPERATOR BACKING SAFETY

Did you know that the number one cause of commercial motor vehicle crashes is backing up? Backing up is also one of the most dangerous maneuvers that drivers do in the yard. While you are never going to eliminate backing up your trucks, here are a few techniques that can help keep you and your co-workers safer.

**Have someone act as a spotter.** Make sure the spotter and driver agree on hand signals prior to backing up. The driver and spotter should both maintain visual contact with each other while the vehicle is backing.

**Get out of the vehicle.** Prior to backing, check your surroundings, including above, under, the sides, and the rear of the vehicle. Don't forget to look at the equipment on the back of your truck and factor this in when backing. For instance, note the spinner, chute, spray bar, tailgate and lights and account for them when backing.

**Verify swing clearance.** Do you have enough room to safely back where you need to?

**Warn others that you are about to back.** Public works yards are noisy, busy places. Giving others a heads-up that you are about to back helps keep everyone safer.

**Back towards the driver's side when possible.** This is called sight side backing. By backing toward the left side, the driver has better visibility and control when compared to blind side backing, which is backing toward the right side of the vehicle.

**Eliminate distractions.** Turn off the radio. Don't be on the phone.

**Use your mirrors and drive slowly.** This will help you be more aware of your surroundings and enable you to stop quickly if needed.

## STOCKPILE SAFETY

The following tips regarding safe operating practices when working on or around stockpiles comes directly from the Salt Institute. <http://www.saltinstitute.org/wp-content/uploads/2013/09/Salt-Storage-Handbook-2015.pdf>

- Never approach the vertical face of a stockpile on foot or in a vehicle closer than the vertical dimension of the pile; it might collapse and cover you in an avalanche.
- Never park next to a stockpile or next to equipment working a stockpile.
- Never position yourself between the face of a stockpile and an immovable object (such as a loader or other vehicle).



- When working on top of a stockpile, never approach the crest closer than 15 feet.
- Always ensure that you have proper footing when accessing the top of a stockpile, and always be alert for sinkholes or other openings in the surface of the pile.

## ON THE ROAD SAFETY

It's essential to conduct dry runs and be knowledgeable about your route as there are several hazards you might encounter while performing winter maintenance. Make sure to note any hazards and put them on your route map so you know exactly where they are located. Talk to other plow drivers that have driven your route and see if they have any guidance about hazards they have encountered. This could be something like a raised surface that has caused damage to the plow. There are many common items that may not be problematic in good weather, but can cause issues when snow and ice covered. For instance, obstacles to look out for might include: railroad crossings, manhole covers, bridge expansion joints, curbs, guardrails, storm drains, steep inclines, low overhead hazards, mailboxes, and so on.

It's important when you are operating the plow to always be aware of your environment, look ahead, stay alert, recognize potential hazards, decide on an appropriate response and execute your response. Remember, there are hazards you might encounter that weren't there during your fall dry run, such as a disabled car on the shoulder or a wreck.

Using caution when negotiating curves is another vital skill when operating a plow truck. The plow driver should enter curves at least 5 mph below the posted speed limit, avoid braking in a curve, and start at a slower speed and accelerate when moving into the curve.

## MAINTAINING CONTROL OF YOUR PLOW TRUCK

Having strategies to control your truck, and being knowledgeable about how your truck performs loaded and empty, will make you a safer driver. Some questions that you

need to be able to answer are: How fast can your truck stop with a full load? How does your truck handle when empty? How does your truck perform with the [bed] up?

### Keep in mind, plow trucks do not maintain a constant center of gravity.

- Load stability changes constantly during a shift.
- Load stability is in constant flux.
- Load can shift front to rear and side to side.
- Plow and wing components can increase instability.
- Raising/lowering the dump [bed] will change the center of gravity.
- Amount of material in the dump [bed] will change the center of gravity.
- The higher the truck bed, the lower the truck's speed should be.

## STAY ALERT. COME IN RESTED FOR YOUR SHIFT

### While plowing:

- Stay hydrated – drink water.
- Eat healthy snacks – keep an even energy level.
- Avoid the ups and downs of high sugar or high caffeine drinks/foods.
- Open the window.
- Keep a cool cab.
- Get out and walk around when re-fueling, re-filling.
- Sing/talk out loud.
- Move during your breaks, don't just sit.
- Communicate with supervisor if longer breaks are needed.
- Develop a system that works best for you.

## TIPS FROM EXPERIENCED DRIVERS REGARDING NIGHT PLOWING

"During heavy snowfall, use the truck headlights on dim rather than the high mounted 'plow lights.' The plow lights tend to reflect heavy snowfall, blinding the operator."

- Monty Mills, Washington DOT

"If the road is wet, the temp is likely to drop as it gets dark, which could cause ice. Keep a close eye on the surface temp. As it starts to set up, it might sparkle under the head lights. Use bridge decks as a first read."

- Justun Juelfs, Montana DOT

"I have driven on roads where the wind is blowing in the same direction and at the same speed which you are trying to travel. The snow appears to be falling straight down, reducing visibility. You may have to reduce speed so that you are not traveling at the same speed as the wind. You may also have to adjust the plow direction so the snow plume does not reduce visibility even more."

- Cliff Spoonmore, Wyoming DOT