

**2018: Bunker Silo Safety Reminder from the OSHA Work Group (NYCAMH, NEDPA, NYFB and Cornell PRO-DAIRY).**

**A sample of items to cover for pre-harvest preparation and safety meetings:**

- Document and retain a record of all safety training with dated sign-in rosters. Farm specific safety concerns and other issues: narrow roads, soft shoulders, main highways, traffic, spilling silage or tracking mud on roads, etc.
- Review rules of the road, safe speed, specified routes and alternatives to reduce neighbor irritation, beware of complacency- the 22<sup>th</sup> time at the same stop sign can get boring, but still need to stop!
- Get a good night's sleep. Tired operators are more likely to make mistakes and especially so when combined with complacency. According to research, most people require 8-9 hours of sleep per night for optimal performance. Too little sleep, especially over consecutive nights, will result in impaired function and significantly reduced reaction time.
- Carry water and snacks/stay hydrated. Take breaks periodically.
- Stay in communication, let others know of hazards when they are observed.
- Stay off cell phones while driving. Hands-free cell use is legal, but can still be a distraction.
- Stay in trucks or equipment when waiting. If personnel must exit, radio other operators.
- If personnel are on the ground, they should never walk out in front of or behind any machine or truck without first making eye contact with the operator.
- No extra passengers unless in training.
- Make sure lighting is adequate for all work performed after sunset.
- Moving poorly marked or lighted equipment at dusk is especially dangerous- use an escort vehicle to reduce risk.
- All tractors and machinery that travel less than 25 mph on public roads need to have a properly mounted SMV (Slow Moving Vehicle) emblem. SMV emblems need to be clean and not faded, must be mounted in the center of the rear of the machine (or as close to the center as possible), and be 2' to 6' above the road surface.
- Completely shut down machinery when clearing debris. Remove and pocket ignition key so no one can restart if you are not visible. Machinery that is shut down for service can be tagged out at the steering wheel, as "Do Not Operate".
- Make sure that staff use the proper personal protective equipment, such as hearing protection in noisy areas.

**Pre harvest:**

- Check over trucks and equipment, ensure tires are at proper inflation and have adequate tread - change excessively worn tires, check if all lights are functioning, recheck each day before work starts. Trucks need to be equipped with fire extinguishers and safety triangles or flares.
- Provide fire extinguishers on larger tractors and self-propelled harvesters and be sure all know where they are located.
- Make sure road safety features meet the legal requirements.
- Check field entry routes for wash outs and culvert problems, clearly mark entries when road ditches exist adjacent to culverts.
- Mark driveways with flags so that drivers do not have to guess where the edge is.
- Check common routes for road crew activity or other new issues.
- Provide hi-visibility clothing or vests to staff to help prevent run over incidents.
- Daily: remind drivers, packers and chopper operators to be safe, use safety belts and take no unnecessary risks.

**Filling:**

- If new silage is being added to old silage, mark where the two materials are joined: the joint areas can be very unstable during silage removal and can collapse without warning because the silage will not be interlocked at this point.

- Do NOT put new silage on top of existing silage that has a plastic covering in-place; although this may seem in the best interest in forage quality, it can result in excessive hazard of face collapse during feedout. Extra caution is warranted with any activity in these areas.
- Pile height should not exceed the reach of the unloading equipment. Filling staff should be told the target pile height.
- Packing tractor(s) should be ROPS equipped, operators belted in.
- Rollover hazard is obvious. Side slope steepness is an important safety concern. There are many factors that influence safe operating gradient. Minimize lateral side slopes as much as practical and strive to be less than 6:1 sideslope, beware of soft spots.
- Safest packing is achieved when driving up and down the pile: some references suggest no more than a 3:1 slope in the direction of travel for this type of operation. As your farm changes, please consider how to size and organize bunker silos so that pile height and slope allow packing equipment to drive safely over all sections of the pile.
- Only the most experienced equipment operators should pack. Provide new packing operators with proper training.
- Due to tip-over hazard, for hydraulic dump bodies, NEVER back up onto the pile to dump, rather dump in pre-designated areas established to avoid truck/packing tractor collisions.
- Inform all staff that only authorized personnel should be in the silo filling area, extra people should be kept out. Make sure appropriate signage such as “No unauthorized personnel” and “Danger” is posted visibly.

#### **Covering crew:**

- Conduct safety meeting before going up onto the piles.
- Designate those that will work near the edge, all others stay away!
- Make sure workers are not wearing slick surface shoes.
- Remind workers to watch out for each other and no horseplay on top.

#### **At the end of the day:**

- Consider having short end-of-day meetings to celebrate work accomplished and review any observed or perceived safety issues.