



# LEAF VACUUMS – Personal Protective Equipment

## Toolbox Talk Lesson Plan

Collecting leaves with a leaf vacuum on public roadways exposes workers to several hazards. Certain hazards can be mitigated with engineering controls. Examples of engineering controls include warning lights, machine and muffler guards, and boom adjustments. Administrative controls can be used to protect workers from other hazards. Administrative controls are policies and procedures such as route selection, job rotation, and using spotters when backing. However, some hazards can only be controlled with personal protective equipment.



Hazards to the head include bumping into street signs and low tree branches. A low probability / high consequence hazard is a boom failure. **Hard hats should be optional**, based on the frequency of obstacles at head level. Hard hats may increase the stress of heat exposure if leaf vacuuming takes place on hot days.



Hazards to eyes include the high dust levels common to many vacuums. Low branches and airborne debris are other, lower frequency, hazards. **Safety glasses are recommended**. Options include tight-fitting padded models, strap, and shaded with UV protection.



Leaf vacuums typically produce noise levels in the range of 96 to 102 decibels at the vacuum nozzle, and 86 to 94 decibels within 10 feet of the machine. **Hearing protection is required**. Noise levels must be reduced to at least below 90 decibels. Workers need an Effective Noise Reduction Rating of about 10-12 dbA. Ear muffs should have a minimum Noise Reduction Rating of 12 dbA and ear plugs should have a minimum NRR of 24 dbA.

- If ear plugs are available demonstrate how to properly insert them



Leaf vacuuming is a mobile work zone. **Workers on, or within 15 feet, of a roadway must wear ANSI Class 2 (pictured) or Class 3 high visibility apparel**.

- Explain options for meeting this requirement for various weather conditions.



There are several hazards to the hands of workers; abrasion from manipulating the vacuum nozzle handle, abrasion from rake handles, vibrations of the handle, cold temperatures, and handling poisonous vegetation that may be included in leaf piles. **Gloves with abrasion resistance, such as leather or canvas, are strongly recommended**. Tight-fitting cuffs and formed gloves models should be available.



Hazards to the feet include dropping tools, nails mixed in leaf piles, potholes, ice, wet leaves, and exiting work vehicles. **Work boots are required**. They should have protective toes, good ankle support, and soles in good condition.

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