

# A 19-Year-Old Landscape Laborer Dies When Entangled in Auger after Entering the Hopper of a Bark Blower Truck



## SUMMARY

In July of 2014, a 19-year-old landscape laborer died after entering the hopper of a bark blower truck and becoming entangled in its rotating auger system. The victim was employed by a supplier of commercial and residential bark, mulch, and other landscaping materials. The day of the incident was his second day on the job. He had no prior experience in the landscaping industry.

On the day of the incident, the victim, a supervisor, and another laborer, were delivering a load of mulch in a bark blower truck. The bark blower truck had a truck-mounted pneumatic blower system powered by a diesel engine. Bulk material was loaded into the hopper and a conveyor belt on the hopper floor moved material toward the auger system mounted on the hopper's rear door. This system consisted of a stir rod to break up the material, and two diagonal augers that would drive the material down into a rotating feeder located on the hopper floor. When the material entered the feeder it would be caught up in the air flow created by the air blower and enter the discharge hose for placement on a site.



Inside of bark blower truck hopper

The bark blower truck being used that day had broken pressure sensors. The pressure sensors were designed to shut down the conveyor belt when the auger system experienced too much pressure from bulk material in the hopper. Without working sensors, the hopper's bulk material would bridge over the conveyor belt, forming a tunnel. When tunneling occurred, material would not flow into the feeder or through the hose. It had become accepted company practice to have workers inside the hopper standing on bulk material using a pitchfork to move material into the blower system. They would work 1 to 5 feet from the rotating unguarded auger system. This is what the victim was doing on the day of the incident.

The supervisor and other laborer could not see the victim working in the hopper as they were blowing bark onto the yard. They heard a clunking noise coming from the truck and bark stopped flowing through the hose. The supervisor used the remote control to shut down power to the system. He walked over to the truck and called the victim's name. When he received no answer, he instructed the laborer to call 911. Police and fire department emergency medical service responders arrived within minutes. A police officer looked into the hopper and found the deceased victim entangled in the stir rod of the auger system.

## RECOMMENDATIONS

To prevent similar incidents, Washington State Fatality Assessment and Control Evaluation (WA FACE) recommends that employers engaged in similar work:

- **Conduct a job hazard assessment (JHA) of machinery, processes, and tasks to identify potential hazards to which workers might be exposed.**
- **Develop, implement, and enforce:**
  - A written accident prevention program (APP) that is effective in practice and that includes training on identified hazards, hazard recognition, and the avoidance of unsafe work conditions and practices specific to the worksite.
  - Written standard operating procedures (SOPs) that are specific to bark blower truck operations. Train and supervise employees in these procedures.
  - A comprehensive written hazardous energy control program including a lockout/tagout (LOTO) procedure and training for maintenance and servicing of bark blower trucks.
  - A comprehensive written program detailing procedures for safe entry into or work in permit-required confined spaces, such as bark blower truck hoppers.
- **Maintain machinery and equipment in safe operating condition. Remove malfunctioning machinery and equipment from service and repair or replace.**
- **Affix labels to equipment containing graphics providing hazard warnings and instructions for the safe use of equipment.**
- **Ensure that young workers and inexperienced workers are adequately trained and supervised to perform their work safely.**

SHARP Publication # 52-41-2017\_summary The full version of this investigation report, along with the detailed recommendations and discussions section, can be found at:

[www.lni.wa.gov/Safety/Research/Face/Files/YoungWorkerBarkBlowerTruckAuger.pdf](http://www.lni.wa.gov/Safety/Research/Face/Files/YoungWorkerBarkBlowerTruckAuger.pdf)



The Washington State Fatality Assessment and Control (WA FACE) program is one of many workplace health and safety programs administered by the Washington State Department of Labor & Industries' Safety & Health & Research for Prevention (SHARP) program. It is a research program designed to identify and study fatal occupational injuries. Under a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH grant # 2U60OH008487-11), WA FACE collects information on occupational fatalities in WA State and targets specific types of fatalities for evaluation.

More information about WA FACE can be found at [www.lni.wa.gov/Safety/Research/FACE](http://www.lni.wa.gov/Safety/Research/FACE).