

MAY 2019

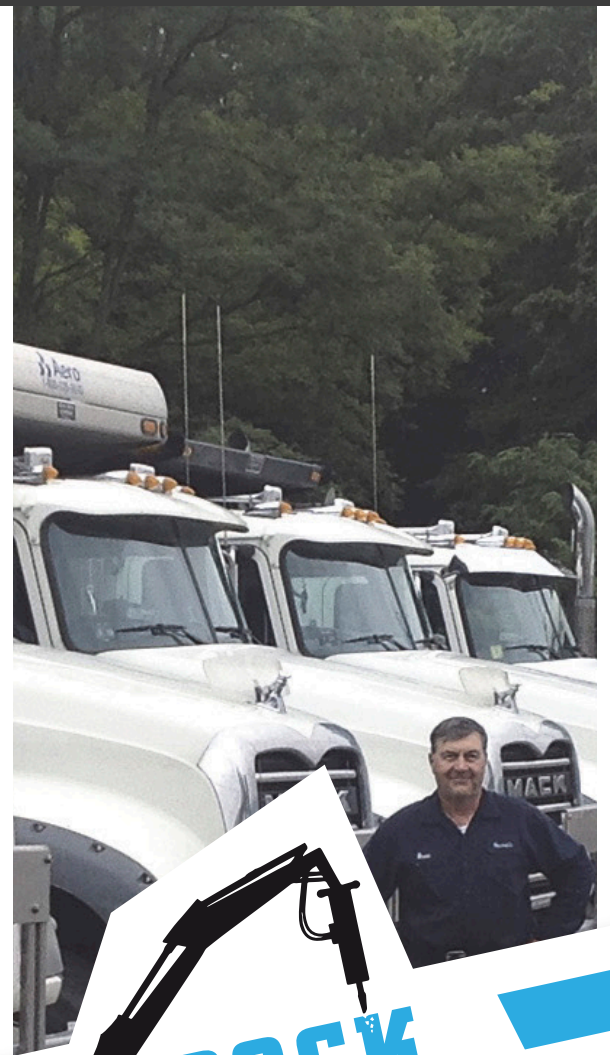
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**RIVERBEND
CONSTRUCTION SERVICES
BOOSTS PRODUCTIVITY**



**2019 HARD HAT EXPO
EXCEEDS EXPECTATIONS**



**TRUCKING COMPANY
SHAKES OFF LOW-QUALITY
TRUCK VIBRATORS**





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- Composting
- Screening & processing
- **Dust control**



Trucking company shakes off low-quality vibrators

On the Cover: Bruce Stelljes of Herman's Trucking, which has been serving Burlington County, NJ, since 1973.

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On the front lines with Fisher Phillips



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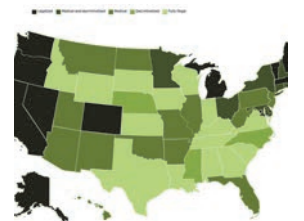
by Keith Loria



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What employers need to know about opioid and marijuana testing

by Courtney Llewellyn



Associations and affiliations:





Missouri composter blankets dust with atomized misting equipment

Other SLC sites are reviewing their potential for dust issues and he sees the possibility that additional DustBoss units may be in the company's future.

An innovative Midwest composting company has specified high-performance dust suppression equipment for a busy yard waste transfer station, helping the firm comply with environmental regulations and maintain good relationships with its commercial neighbors. The large-scale unit from Boss-Tek replaces a smaller design from another manufacturer that proved inadequate for the size of the operation, while the new machine oscillates 40° to cover more than 20,000 square feet (1,858 square meters) with a dense, dust-trapping mist. Since the unit was placed in service, the facility has not received a single dust-related complaint — achieving excellent control of fugitive particles, while avoiding over-saturation of the compostable material.

For nearly two decades, St. Louis Composting has been one of the state's leading producers of nature's ultimate renewable resource. The firm supplies gardeners and landscape professionals with top quality compost, topsoil and soil blends, along with a variety of mulches, while simultaneously reducing landfill waste across the metro area.

The SLC Maryland Heights facility is a busy four-acre site accepting yard waste that includes trees, limbs and brush from neighborhoods in north and west St. Louis County. The station is surrounded by other businesses and company officials wanted to prevent dust from creating a nuisance, while ensuring compliance with regulations set by the Department of Natural Resources and St. Louis County.

Like many outdoor bulk material handlers, SLC had been using hoses to try and manage dust, but the technique proved ineffective. "Aside from the need to have manpower dedicated to those hoses, the solid stream didn't do a good job of controlling ground-level dust or preventing it from becoming airborne," said Operations Manager Dave Gavlick. "And it tended to soak the yard debris, which add-

ed unnecessary weight to the loads being trucked out."

The greatest drawback to such basic control methods is droplet size — water droplets produced from hoses and spray bars are simply far too large to produce any meaningful benefit in controlling dust particles. In addition, the range of these techniques tends to be quite limited, frequently requiring significant staff time to man the hoses or drive water trucks around the target areas. The new equipment has eliminated the need for manual spraying at SLC.

Seeking a better solution

Dust suppression has become an increasingly important challenge in recycling and composting operations with raised awareness and tighter regulatory standards both contributing motivation to find efficient, cost-effective methods of particle control. Depending on the source and ambient conditions, airborne dust can contribute to a number of concerns, including potential health or safety hazards, environmental issues, regulatory challenges, higher equipment maintenance costs and poor community relations.

The Maryland Heights location is one of SLC's smallest, which doesn't allow much settling time for dust that becomes airborne. "The facility sits up on a hill, so the dust has the potential to travel long distances when it gets stirred up," Gavlick continued. "We wanted to find a technology that would suppress particles when they become airborne, but would also help prevent ground-level dust from migrating."

In an effort to improve on the performance of manual spraying, SLC investigated equipment marketed specifically for dust suppression. "We did some initial research and purchased a portable misting unit that's supplied by a garden hose," recalled Gavlick. "It helped to some degree, but it really didn't put out the volume of mist we needed in this application."

When it became apparent that the smaller turbine-type dust suppressor wasn't sufficient to control the dust, Gavlick started looking for larger equipment. On the recommendation of a colleague, he reviewed performance data on the DustBoss™ DB-60, the flagship model in DCT's family of dust suppression equipment. Noting that the manufacturer offered a rental option, he decided on a short-term lease to evaluate the performance.

Designed with a series of 30 specially-designed brass nozzles to atomize water into droplets 50-200 microns in size, the DB-60 uses a powerful 25 HP motor that generates 30,000 CFM of air flow (nearly 850 cubic meters per minute) to launch millions of droplets per minute. The atomized spray has a throw of more than 200 feet (approx. 60 meters) on a calm day, yet the standard carriage-mount-

ed device is completely portable, allowing it to be located wherever it's needed most.

The unit has an adjustable throw angle from 0-50° elevation and when equipped with the 359° oscillation option, it can cover more than 125,000 square feet (over 11,600 square meters) from a single location. To put it in perspective, that's more than 2.8 acres (1.16 hectares), or 2.6 standard American football fields.

Gavlick's crew positioned the unit to cover the area where yard waste is loaded into trucks for transport to one of the company's composting facilities. Front loaders with high-tip buckets are used to fill the walking-floor trailers, which have a capacity of 100 cubic yards each. The results were immediately obvious and SLC decided to purchase the machine, with a portion of the rental fee applied to the purchase price.

The facility now runs the DustBoss 8-10 hours a day on average whenever loaders are working. It's powered by a 60 KW generator with municipal water supplied by a 1.5-inch hose. "The results have been excellent," Gavlick observed.

He added that other SLC sites are reviewing their potential for dust issues and he sees the possibility that additional DustBoss units may be in the company's future. "Regulations are continually evolving and they're more strictly enforced than ever," Gavlick added. "All large-scale operations need to be more aware of dust-generating activities and appropriate methods for achieving compliance. The DustBoss has worked well for us."

St. Louis Composting was founded in 1992 by eco-enthusiasts Patrick and Rebecca Geraty and has since blossomed into the region's largest compost producer. The mission of this husband and wife team is to help make the world a little greener and reduce landfill waste by producing compost of the highest quality. The company's five composting facilities process roughly 900,000 cubic yards of waste annually, including 500,000 cubic yards of green material — more than one-third of all yard waste generated in St. Louis County. In addition to recycling yard trimmings gathered by the area's major waste haulers, the firm receives and composts material collected from curbside green waste recycling programs.

BossTek specializes in atomized mist technology with its entire focus on customized equipment for dust suppression and evaporation. All of the firm's R&D, experience and expertise is centered completely around those applications and its staff helps customers analyze particle sizes, working environments and other factors to ensure effective performance under real-world conditions. The units are far more effective and efficient than manual spraying, with some customers realizing payback in less than six months. ■



Gavlick's crew positioned the unit to cover the area where yard waste is loaded into trucks for transport to one of the company's composting facilities.

Photos courtesy of SLC