

**ARTICLES**

# Making waste and recycling safer for everyone: 5 new game-changing technologies

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*Innovations Observed at Waste Expo 2018*

According to the [Bureau of Labor Statistics](#), trash and recycling collectors hold the fifth most dangerous occupation in the United States. Every day, trash collectors put themselves and others in dangerous situations, navigating big trucks through narrow city streets and alleyways and operating heavy equipment. Injuries are commonplace at recycling facilities due to loud, heavy machinery; from torn rotator cuffs caused by lifting trash cans, to a host of other even more serious injuries. Fatalities are far too frequent, both for employees and bystanders. And the human anguish that goes along with workplace deaths is immeasurable.



With more than 20 years in waste and recycling insurance, I've seen more than my share of these tragedies on the job. My professional obligation is to protect our clients with the best insurance for their businesses, but, for me, the job goes much deeper than that. I want to see safety measures implemented across the industry to help create safer work environments. I want lives to be saved.

Although tech disruption is relatively new in the waste and recycling industry, the latest crop of technology advancements featured this year at Waste Expo has the field abuzz with new and better safety measures that are changing the industry. Here are the highlights:

**Truck cameras.** Cameras mounted inside the cabs of garbage trucks are having a big impact on safety in two distinct ways. Firstly, knowing that you're being recorded has a positive change on driver behavior. Drivers aren't as complacent as they might have been in the past. Secondly, cameras are being used to exonerate drivers from wrongdoing in lawsuits. Traditionally, in any accident that involved a big truck, blame was almost always placed on the truck driver. But dashcam recordings have proven that the fault is often on the distracted driver of the second vehicle. Video evidence is helping with driver safety and liability.

**Bike side guards.** Bicycle fatalities from collisions with trucks are common, especially in cities across the country where bike lanes have been added to streets. But side guards that cover the area between the truck's front and back wheels can prevent accidents from becoming fatalities.

**Collision avoidance systems.** Cars have them -- sensors on all sides that beep when approaching an object, as well as back-up and side cameras. It's taken longer for commercial truck manufacturers to adopt these technologies, but trucks are coming off the assembly line with the full gamut of safety sensors. And older trucks can be retrofitted for these life-saving devices.

**Fire suppression systems.** Increased number of fires at waste and recycling facilities is an ongoing concern in the industry. Because of the amount of paper and flammable materials stacked in these facilities, they are particularly prone to fire. Fortunately there are new products and technologies available to help mitigate this exposure. A company called Fire Rover has products that combine infrared technology, 24 hour off-site monitoring, and firefighting foam that can be released as quickly as a spike in temperature or spark and fire. The sensors alert the sprinkler system which then releases foam to stop fires in their infancy.

**Robotics.** "Yellow iron," the collective term for big machinery used in recycling and waste facilities, is loud and dangerous. Workers on the floor at these facilities can't always hear an approaching forklift, for example, which can cause devastating accidents. New breakthroughs in robotics, however, are helping to reduce the incidence of workers exposed to "yellow iron" accidents.

Helping our clients become safer makes good business sense. Insurers don't want to underwrite risks for companies plagued with accidents and/or legal exposure. As a broker, we can save our clients' money and place them with insurers more easily if they have better safety ratings.

For me, it's about more than the bottom line. Two years ago, my brother-in-law was killed in a work accident that was avoidable. He was working at a warehouse facility when ammonia leaked from one of the 5,300-lb. tanks inside. He helped his co-workers evacuate, but Brian never made it out of the building. His death is a statistic on an OSHA report, a number in an actuarial formula. But, the human toll has affected our family forever.

At the end of the day, everyone should go home to their families, especially when work-related deaths are preventable.

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