

In the line of fire

AN EARLY FIRE PROTECTION SOLUTION THAT CAN DETECT AND EXTINGUISH FIRES BEFORE THEY START IS COMING TO AUSTRALIA AND NEW ZEALAND. WASTECH ENGINEERING CEO SCOTT RUSSELL EXPLAINS.

Fires continue to be a problem at all levels of waste and recycling facilities across Australia, from collection through to transport, processing, storage and disposal.

In October, an Australian government report *Waste Fires in Australia: Cause for Concern?* recommended that regular reporting, risk management strategies and effective guidelines be implemented to prevent both the occurrence and severity of future waste fires.

Scott Russell, Wastech Chief Executive Officer, says while there's heightened awareness around the impacts of fires and the complexities of transporting, storage and handling of recyclable and waste streams, the safety technology in eliminating fires "hasn't increased at the same rate".

Until now, Wastech is the exclusive Australian and New Zealand distributor of Fire Protection Solutions' Fire Rover which, Scott says, will be a "game changer" for the waste sector.

"At some facilities, it can take days and weeks for a fire to be brought under control," Scott says. "This technology has the potential to stop it before it becomes a potential catastrophic event.

"Being in the waste industry, I've seen the impact of fires not only on the environment but local communities and the operators of the facilities. Current technology is really geared at fire suppression; the Fire Rover solution mitigates the fire before it gets out of control.

"The Fire Rover certainly seems



The Fire Rover is described as a "game changer" in fire protection.

like a key piece of the puzzle to reducing major fires."

The Fire Rover uses military-grade thermal detection and high-definition cameras to pinpoint and detect fires in their infancy and identify hotspots during an incident's incipient stages.

Once a heat abnormality is detected, alarms received from the detectors are transmitted to Fire Rover's UL certified central monitoring station, where a Fire Rover agent verifies if it's a false report or if it's a threat and action needs to be taken.

If action needs to be taken, the Fire Rover agent alerts the facility, the fire department and authorities, then aims and shoots an environmentally-friendly cooling, fireproofing and extinguisher agent from the Fire Rover's nozzles onto the hot spot to eliminate a fire before or after it starts. This allows ample time for fire crews to arrive on scene and for the facility operator and

The thermal camera of the Fire Rover is housed in a ruggedised IP66 enclosure for reliable performance.



fire crews to provide an appropriate response to the level of hazard.

The Fire Rover has superior suppression, partially because of the targeted and elevated water density delivered when compared to a typical sprinkler system and partially because it is controlled from a remote central monitoring station.

Scott says the Fire Rover is currently geared toward material recovery facilities, transfer stations, waste stockpiles, C&D, WtE, electronic scrap and more. A landfill-specific version called the OnWatch has recently been launched in America to early detect and verify fires on the working face of a landfill, outdoor stockpiles, windrows and wild fires.

He says the application of the Fire Rover's technology can be expanded to "anywhere there's risk of a major catastrophic fire".

Ryan Fogelman, Fire Rover's Vice President, says there has never been a catastrophic event that started in an area they protect at the more than 250 sites where a Fire Rover is installed across America and Canada. The company responded to 69 fire incidents at client operations in September 2021, along with an average of 82 fire incidents from the previous four months.

"If fire incidents aren't detected and managed early, they can trigger a domino effect, presenting further risks to employees and facilities

[infrastructure]," Ryan says.

"Traditional fire-suppression methods such as water sprinkler systems and deluge systems may not be the best option to stop



a fire at a facility where there's a lot of activity such as a materials recovery facility, transfer station or waste-to-energy facility due to the amount of material, moving vehicles and the issue of false alarms.

"Fire Rover combats fires and explosions within moments from ignition. This system is specifically designed for the waste and recycling industry and has eliminated thousands of fires in waste and recycling facilities across the US and Canada in the past seven years."

Ryan describes the work of the Fire Rover as "fighting the fire for customers".

"We are their fire-brigade until authorities arrive. We can get in early, quickly and go. Our solutions contain each incident, protecting the public and the fire professionals that arrive on scene to a manageable or non-existent incident."

Due to the ever-increasing demand and processing of lithium-ion batteries, in 2020, Fire Rover added a "quick connection" for fire professionals, which allows fire crews to take a defensive approach to fighting fires effectively while remaining safely outside a facility.

The Fire Rover team has also designed and installed a box-less solution for waste-to-energy and industrial facilities that uses the operators' existing water infrastructure.

In North America, the WtE and Industrial solution received the National Waste & Recycling Association's 2020 Innovator of the Year – Recycling Equipment Award. The award celebrates innovation in design and manufacturing that increases the effectiveness or efficiency of recycling equipment and operations.

Fire Rover is custom designed to suit specific sites. It can be retrofitted to existing facilities or incorporated into new builds. A demonstration unit is being installed in Wastech's Victorian headquarters in Hallam.

An in-house fire expert is heading up Wastech's Australian and New Zealand project to ensure fire protection compliance.

Scott says the Fire Rover solution brings "critical layers of protection" to the waste industry where there is an inherent risk of fires.

"Wastech has nearly 30 years in providing the industry with design solutions and products," he said. "The Fire Rover is a good fit and a logical extension of that. We know the industry-base. This is an added product to protect those key infrastructures.

"The Fire Rover is revolutionary. It's an opportunity to be part of bringing innovative safety solutions to Australia and New Zealand." ■

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