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Pilot project to trial tech that prevents batteries igniting in HWRCs

October 25, 2024

Barnbrook Systems, in collaboration with Flair and TJ Waste & Recycling, is pioneering a new approach to battery safety with the E-bag system. This innovative solution aims to mitigate the risk of fires caused by lithium-ion batteries in waste and recycling facilities.

The E-bag, a temperature-sensitive smart fabric, is designed to smother batteries or hardware once placed inside, preventing ignition or extinguishing flames. The technology will be trialled at TJ Waste & Recycling's Materials Recovery Facility in Portsmouth, following a significant fire believed to have been caused by a lithium-ion battery.

Andrew Barnett, managing director of Barnbrook Systems, said: "This is game-changing technology which can deal with the increasing threat from lithium-ion batteries.

"There have been a number of cases recently where they have caught fire, including within a passenger's hand luggage which resulted in the evacuation of a passenger aircraft at Gatwick Airport in September. We are looking forward to working with TJ Waste & Recycling in the UK's first trial of its kind using our E-bag technology which has the potential to save lives and money while supporting business continuity and enhancing community confidence."

The E-bag system will be implemented in two ways:

1. **Portable Bags:** Operatives at TJ Waste & Recycling will be equipped with portable bags to safely store suspect or hazardous devices.

2. **Large Sacks:** Larger batteries or devices can be placed in larger sacks, which can then be lifted and removed by a forklift.

Additionally, the E-bag is integrated with Barnbrook's BlueCube© tracking and monitoring sensors. This IoT technology enables real-time tracking of pressure, temperature, and movement within the bag, providing valuable insights into the status of the stored items.

Barnbrook is actively exploring opportunities to expand the use of the E-bag technology beyond waste and recycling facilities, including its potential application in the aviation industry.