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Waste and recycling fires: rising losses in a sector under pressure

The UK waste management and recycling sector is growing rapidly. Driven by environmental targets, regulatory changes, and advances in processing technology, the market is expected to reach £40 billion by 2028.

However, in recent years, there has been a noticeable rise in high-profile fires at recycling centres, waste transfer sites, and even within collection vehicles, bringing the sector's risk profile into sharper focus. Incidents involving lithium-ion batteries and other hazardous materials have impacted sites across the UK, from large recycling centres to bin lorries being destroyed beyond repair following ignition events during routine collections.

These incidents are not isolated. Fire services and industry bodies have warned of a persistent increase in battery-related incidents, with improper disposal increasingly cited as a key contributing factor. Overall, this underscores a developing, more complex industry facing a rise in volatile materials entering the waste stream.

Why are losses escalating?

Waste operators can't control waste composition. Hazardous items like lithium-ion batteries and aerosols are often hidden in mixed streams. When processed, they can become damaged and unstable, risking fires from thermal runaway. Such fires spread quickly and are hard to extinguish, especially among combustible materials such as plastics, paper, and residual waste, with small ignitions potentially escalating rapidly.

The increase in reported incidents is translating directly into claims activity, both in terms of frequency and severity. Several factors are driving this shift.

The first is scale. As recycling capacity expands, more material is processed through increasingly complex facilities, raising the probability of ignition events.

The second is the changing composition of waste. The widespread adoption of battery-powered consumer goods - from mobile phones to e-cigarettes and e-bikes - has introduced a new class of hazard into everyday waste. Industry estimates suggest that lithium-ion batteries are now responsible for over 1,000 fires annually within the UK waste sector. The increasing risk that battery-based products pose to the recycling sector has been recognised by the government, with new legislation coming into force on 1 June 2025 banning the sale of single-use e-cigarettes. However, the initial consensus from industry leaders is that the issue remains, with many consumers still treating reusable products as single-use and disposing of them incorrectly after one or two uses.

The third is the nature of modern facilities. High-throughput operations rely on conveyor systems that move material continuously through processing lines. Once a fire starts, this creates a mechanism for rapid propagation across the plant, making intervention more challenging.

Finally, timing plays a role. Many significant fires occur outside operational hours, when sites are unstaffed or response times are longer. By the time an incident is detected, damage may already be extensive.

Complex losses

From a claims perspective, losses in this sector are rarely straightforward. Material damage alone can be significant, particularly where fires impact bespoke processing equipment. Recycling facilities typically rely on specialist machinery tailored to specific waste streams, with limited global suppliers. This introduces complexity in valuation, repair feasibility and replacement timelines, often requiring detailed technical input and coordination with manufacturers.

However, the more substantial exposure frequently lies in business interruption. Waste operators operate within structured contractual frameworks, often servicing local authorities or large commercial clients.

Where processing capacity is lost, operators may face costs associated with diverting waste to alternative facilities; loss of revenue from disrupted operations; and even contractual penalties or, in some cases, termination of agreements.

As a result, business interruption losses can exceed the initial material damage several times over, particularly where reinstatement periods extend due to equipment lead times or site remediation requirements.

In practice, these claims can run for prolonged periods and require sustained engagement between adjusters, insurers and policyholders.

Mitigation

There are established measures that can reduce both the likelihood and severity of incidents. Improved detection systems, stricter waste screening, regular cleaning regimes and better segregation of combustible materials all play a role.

However, mitigation has limits. The underlying issue remains that hazardous items are often concealed within waste, making complete prevention unrealistic.

Even well-managed facilities remain exposed to ignition events originating from unknown or mis-declared materials. The focus, at least for now, is therefore on reducing escalation and improving response, rather than eliminating risk entirely.

A growing area of focus for insurers

Waste and recycling is becoming a more technically demanding area of risk.

For insurers, this requires a careful balance between supporting a growing and strategically important sector, while managing exposure to large, complex losses.

For loss adjusters, it reinforces the need for a multidisciplinary approach - combining technical expertise, operational understanding and commercial awareness to navigate claims that are often high value, long-running and operationally sensitive.

As the sector continues to expand, the interaction between growth and inherent risk is likely to remain a defining feature of the claims landscape.

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