

# IOSH Environmental and Waste Management Group Briefing



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# Introduction

- My background...
  - Engineering, health services, construction, Hatfield train crash investigation, gas and pipelines...
- Human factors in major hazards division (CEMHD)
  - I'll come back to that at the end...
- Waste and recycling sector since Sept 2020...

# How we regulate the sector



- **Stake Holder Engagement**
- **Targeted inspection driven by intel**
- **Enforcement**
- **Research**
- **Working in Partnership**
  - Waste Industry Safety and Health Forum (WISH)
  - Environmental Services Association (ESA)
  - Local Authorities (LARAC)
  - Other Government Departments (EA/NRW/SEPA, BEIS, DEFRA)
  - Original Equipment Manufactures (OEM)
  - Other Trade Bodies (BMRA, UROC, REA, ADBA etc)

# Working in partnership with WISH

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## WISH strategic themes -

- Safer & healthier workplaces
- Training and competence
- Futures and innovation
- Supporting SMEs

– WISH AGM 14<sup>th</sup> and 15<sup>th</sup> September 2022 -  
[VISIT RWM & LETSRECYCLE LIVE](https://www.rwmexhibition.com)  
[\(\[rwmexhibition.com\]\(https://www.rwmexhibition.com\)\)](https://www.rwmexhibition.com)

# Working in Partnership



WISH website – [www.wishforum.org.uk](http://www.wishforum.org.uk)

Organic waste treatment technologies pose specific health and safety risks, which operators need to manage

**CASE STUDIES**  
Examples of good practice from across the industry. The aim is to inspire you through the actions and initiatives of other operators.

**INFORMATION**  
Information sheets on various aspects of health and safety in the waste management industry, but not related directly to any formal WISH guidance document.

**SUPPORT**  
Examples of good practice relating to a formal WISH guidance document, or further information to assist operators in understanding or applying formal WISH guidance.

**WELCOME TO THE WISH FORUM.**

A small recycling symbol in the bottom right corner of the slide.

# Where are we now?

- COVID huge issue, reinforced the vital role of the sector in keeping country running. [INFO-13-COVID19-and-waste-management-issue-11-6-Aug-21.pdf \(wishforum.org.uk\)](#)
- W&R central to achieving Net Zero by 2050 – lots of new & emerging technologies...
- Recycling - now prime concern across many sectors – no longer confined to collection and disposal by purely waste firms e.g. AD
- Safety notice – wheeled loaders - <https://www.hse.gov.uk/safetybulletins/wheeled-loading-shovels.htm>

# W&R High Risk Sector

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Over the last five years (2016/17 -2020/21):

- The W&R fatal injury rate of 6.99 per 100,000 workers is around 17 times the All Industry rate compared to Ag 8.47 Cons 1.62 (representing a downward trend)
- There were an estimated 5,000 work-related ill health cases annually (LFS)
- 44% of reported non-fatal injuries were public sector and 56% private sector

# Statistics



- [www.hse.gov.uk/statistics/industry/waste-recycling.pdf](http://www.hse.gov.uk/statistics/industry/waste-recycling.pdf)



## Waste statistics in Great Britain, 2021

Data up to March 2021  
Annual statistics  
Published 16th December 2021



# Case Study #1 - Baler fatality – 2017



- 23-year-old worker fatally injured in a mobile agricultural baler at a material recycling facility (MRF).
- Designed for animal forage but used to bale various non-recyclable materials for Refuse Derived Fuel (RDF).
- M/C not suitable – could not handle large / rigid items in waste stream -> frequent blockages (PUWER Reg 4 – a common issue)
- Little training, no safe systems of work or lock-off procedure
- Keeping baler running effectively became employees problem
- Baler inadvertently operated by untrained worker helping to clear blockage when other worker was in the bale chamber.
- Deceased was a young father
- £200K corporate manslaughter fine

# Case Study #2 - Vehicle rollaway – 2014



- Driver left RCV to collect refuse in a car park in Watford. Handbrake was on. Driver working alone.
- Vehicle began rolling down slight incline - driver tried to re-enter the cab to prevent this happening - became caught under the rear of the vehicle which crashed into a tree and caught fire. Driver trapped for 90 minutes
- Interlock mechanism preventing bin lifting operations while the gearbox is 'in drive' had been deactivated.
- Judge critical of company attempts to blame the driver and failure to know about defeated interlocks
- [F&R Cawley fined £1.5 million over 2014 fatality - letsrecycle.com](http://letsrecycle.com)

# Case study #3 - Proactive prosecution 2021



- Visit following RIDDOR report. 'Appalling conditions'. Inspectors found -
- Dangerous electrical installations, including wires, plug sockets, burn marks, faulty isolation switches etc.
- Dangerous parts of machinery unguarded. Plant & machinery on site unsafe & poorly maintained.
- Waste bay walls seriously damaged.
- Waste piles unstable – close to pedestrian walkways.
- Picking station - access and egress ladders structurally unsound
- Site office was resting on the top of an air conditioning unit.
- Little segregation between vehicles & pedestrians to protect totters from plant / skip lorries.
- **In total: 9 Prohibition Notices & 7 Improvement Notices served**
- **HSW S.2 case - £200K fine**

# 2020/21 Inspection Campaign



- Undertaken in Q4 (January to March 2021)
- 849 inspections
- Excluded Anaerobic Digestion, Catalytic Converter Recycling, Energy from Waste and Composting sites.
- Targeted
  - a) machinery guarding and isolation
  - b) workplace transport

# 2020/21 Inspection Campaign



- Uncontrolled risk identified at 322 of the visits (approx. 40%)
- A total of 154 Notices served (41 PNs 113 INs)
- **32 Improvement Notices were served on Workplace Transport** predominantly on safe site issues
- **31 Improvement Notices were served on Machinery safety**
- Where Notices had been served on machinery safety the most common types of machines were:
  - 1. Balers
  - 2. Conveyors
  - 3. Shredders
  - 4. Trommels.

# Inspection Priorities 2022/23



HSE inspection priorities for 2022/223 work year:

- Anaerobic Digestion – 50 visits
- Machinery Safety – 500 visits (to coincide with WISH machinery safety guidance)

## Other priorities

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- **Health** – dust, bioaerosols, stress & mental health
- **Violence and aggression - MoPs against operators**
- **Future issues** – tech changes, new processes, Govt Policy etc.
  - Blurring boundaries between W&R and energy production e.g. AD, EFW
  - New technologies – enzymes recycling plastic etc.
  - L-ion batteries – disposal, recycling
  - Net zero & circular economy

# Other priorities

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## Workplace transport

- On site and during collection
- Better control measures needed – relying on people to do the right thing / not make mistakes is weak and low on the hierarchy of control
- Rollaways
- Visibility

# Guidance

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New or revised WISH guidance planned for release this year –

- Walls
- Machinery guarding 1 x WASTE sheet + 6-8 Info sheets
- Bioaerosols WASTE & INFO docs
- WASTE 13 - Designing and operating MRFs (revision)
- Supervision & competence

# Key Messages

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- Procurement - Window of opportunity for electric vehicles – think about now for new contracts
- Integrating process safety type thinking into running plant / equipment – vital to new technologies
- Management of change – installing / buying new / used equipment / CDM implications
- Supervision

# Key Messages

- We've come a long way in a relatively short period of time, but many challenges for the future.
- Finally, some things to think about –
  - Why do people fail / deviate from systems and procedures?
  - Learning the right lessons from accidents i.e. looking at systems not just blaming employees or concluding 'human error' to blame – ask why they did what they did...
- [The Field Guide to Understanding 'Human Error': Amazon.co.uk: Dekker, Sidney: 9781472439055: Books](https://www.amazon.co.uk/Dekker-Sidney-9781472439055-Books/dp/1472439055)

**Questions?**