



*Update from WISH*

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**Chair, WISH**



In the next 20 minutes or so....

- The Automatic Binlift Issue
- Recent Fatality and Accident rates in the Waste Sector
- Fires in Bailers
- [WISH document update]

What's the problem?

- Binlifts operated in automatic mode have a long history of incidents involving entanglement, entrapment and the picking up of individuals and dumping them in the compaction hopper.

A HSE search of the RIDDOR database between 2012 and 2022 shows

- 513 RIDDOR reports reviewed – SIC 38
- 389 incidents resulted in 7 or 3 day absence
- 124 considered major injuries
- 30 incidents involved being lifted by bin lift





## What's the problem?

At a conference with OEM's HSE gave a written statement of the problem:

- A – RCVs present a risk of inadvertent whole body access (i.e. involuntary on the part of the person) to the RCV hopper where there is a risk of fatal crushing
- B – It is foreseeable that both workers & members of the public will approach the danger zone at the rear of the RCV (for legitimate reasons in the case of workers to keep the work area clear).
- C – There are currently no guards or safety devices currently fitted to the rear of RCV's to prevent this from happening
- D – Users must rely on entirely on training & safe systems of work i.e. people following procedures
- E – This is widely known to be the least effective control measure under **PUWER hierarchy of control**
- F – This situation isn't acceptable in a fixed factory-type environment. And, given advances in technology, this is now **unacceptable** in a mobile environment where both workers and members of the public may be at risk
- G – Few fatal accidents, but evidence suggests many near misses where operators are lifted into the hopper. (Workers are strongly disincentivised from reporting incidents)
- H – Fatal crushing injuries only avoided because a) prompt action by other workers to hit e-stop or b) compaction cycle is set so that it does not operate following every bin lift, allowing person to climb out of the hopper
- This is not managing the risk; it is relying on luck. **This is not acceptable**



## EN1501-5, HSE, BSi, and CIWM

- In November 2023 OPSS announced a restriction on EN1501-5 on the grounds that it did not address the risks of reasonably foreseeable misuse.
- HSE, CIWM and others on a BSI committee have since been working on a GB annex to 1501-5 which addresses this deficiency.

### [For new vehicles]

- Control systems for RCV and lifting device to be fully integrated (PLd)
- Differentiate between persons and waste and recycling container
- Prevents continued operation if any person is either present in, or enters danger zone
- Allows for diversity of technologies to maximise reliability

BS EN 1501-5:2021

**THE DEPARTMENT FOR BUSINESS AND TRADE**  
**NOTICE OF PUBLICATION**  
0091/23  
of 30 November 2023

**of references to standards for machinery in support of the Supply of Machinery (Safety) Regulations 2008 (S.I. 2008/1597)**

This notice confirms that:

(a) The references to the standards listed in Part 1 of Annex I to this notice is published for the purposes of regulation 2A of S.I. 2008/1597 and accordingly are designated pursuant to that regulation in relation to England and Wales and Scotland. The list of published standards set out in Part 2 of Annex I to notice 0081/23 is amended in accordance with Annex I to this notice from the date of this notice. For clarity, Part 2 of Annex I to this notice sets out the complete list of references of standards which have been published and accordingly are designated for the purposes of S.I. 2008/1597 as at the date of this notice.

(b) Following an objection made in respect of the standard EN 1501-5:2021 'Refuse collection vehicles – General requirements and safety requirements – Part 5: Lifting devices for refuse collection vehicles', it is concluded that the standard fails to meet the essential health and safety requirements provided for in point 1.2.1 Safety and reliability of control systems of Schedule 2, Part 1 (Annex I) to S.I. 2008/1597. In particular, the standard does not prevent reasonably foreseeable human error leading to hazardous situations, through inadvertent operation of the lifting mechanism because of workers or members of the public, leaning, reaching, or becoming entangled in the lifting mechanism during foreseeable tasks such as clearing spill material or manually loading oversized refuse, whilst in automatic mode. The reference to standard EN 1501-5:2021 should therefore be published with restriction.

(c) The references to standards listed in Annex II to this notice (which have previously been published for the purposes of regulation 2A of S.I. 2008/1597) be removed from publication from the date set out in Annex II to notice 0081/23. Accordingly, each of these standards will not be designated, or give rise to any presumption of conformity, on or after the date set out in respect of it. The list of references to be removed from publication, set out in Annex II to notice 0081/23, is amended in accordance with Annex II to this notice from the date of this notice.

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What you need to do now

## Expectations of OEM's (1)

- HSE and WISH are having both bilateral and joint meetings with the major suppliers of binlifts in the UK.
- HSE/WISH expect OEM's to come forward with solutions to the risks of foreseeable misuse based upon the New GB Annex to EN1501-5 for new vehicles.
- Based on physical or mechanical prevention of harm, rather than relying on procedures and training (noting that procedures, training and proper monitoring of safe systems of work will be needed no matter how good the protection system might be)
- Develop retrofit solutions to the existing vehicle fleet that, so far as reasonably practicable, meet the EN1501-5 requirement
- BUT.....



What you need to do now

## Expectations of OEM's (2)

- It is acknowledged that for older vehicles the control architecture is not capable of being upgraded to reach the new standard.
- It is unlikely to be possible to upgrade to the new standards with a single retrofit programme.
- OEM's should, therefore, provide progressive upgrades that improve the safety of auto binlifts progressively.
- It is going to take time to develop and deploy the upgrades to existing vehicles. It will take several years to complete the deployment of the upgrades that have already been devised.
- Some vehicles may simply not be upgradable. Users will need to consider deploying such vehicles to tasks that do not require the use of automatic mode.





What you need to do now

## Expectations of users (1)

- Be aware of (and insist that any new binlifts you purchase comply with) the emerging EN1501-5 GB Annex.
- For existing equipment contact the OEM and ask about the availability of retrofit upgrades.
- Review the availability of non-OEM upgrades.
- If you are offered upgrades by your OEM, or are looking to take up a non-OEM solution, you need to assess the residual risks that remain, and the new risks that might arise from the upgrade.
- WISH REF 13 “Safe use of bin lifts FAQ’s Sheet” will assist

<https://tinyurl.com/4atusatj>

**WISH**

Waste Industry Safety and Health Forum

**SUPPORTING REFERENCE DOCUMENT**

### **FAQs SHEET – SAFE USE OF AUTOMATIC BIN-LIFTS ON RCVs**

*This WISH reference document is aimed at health and safety improvements in the waste management industry. This document is linked to WISH INFO 26 Safety in the operation of automatic bin-lifts on RCVs but is not a formal part of that document. It simply provides a series of FAQs on some of the topics covered in INFO 26.*

#### **Introduction**

These FAQs are primarily aimed at users of rear loading RCVs used for domestic waste collection where the automatic mode is frequently used. The term 'users' includes local authority direct labour organisations, local authority clients, TECKLEs and contractors. Contractors who do not own the vehicles they are using should work closely with their LA clients to manage this issue. Points to note include:

- This document is primarily concerned with risks from *existing* machines. However, it is not possible to disregard new machines entirely because many of the safe guarding solutions for existing machines may use the same technology as for new machines
- This is not an exhaustive list. However, WISH will update these FAQs periodically if new issues come to light
- This information is provided to help users meet their legal duties in controlling risks to workers and members of the public - WISH does not offer a consultancy service and cannot answer individual questions on this issue
- This document does not include commercial, warranty, or other similar issues as these are outside of the scope of WISH – it is confined to health and safety issues



What you need to do now

## Expectations of users (2)

- Does the safeguard produce any additional risks which affects the safety of a machine by creating a new hazard, or by increasing any risk?
- Does it eliminate or reduce the risk? If the latter, are there any residual risks that need to be addressed by other controls?
- Do the safeguards operate quickly enough that people cannot access dangerous parts?
- If the safeguard fails, is it designed to fail to safety?
- What checks (including daily and pre-use checks), inspections, cleaning and maintenance need to be undertaken to ensure that the safeguard functions correctly?
- What specific additional training and/or information is required to be given to operators?
- Can you describe what is in place to prevent the safeguard from being easily bypassed, disabled or defeated by operators?



Waste Industry Safety and Health Forum

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What you need to do now

## Expectations of users (3)

- Until appropriate physical safeguarding solutions have been in place, procedures and controls at least as good as those described in WISH INFO 26 (version 2) MUST be in place.  
<https://tinyurl.com/44ytr984>
- Effective supervision and monitoring also needs to be in place and maintained so as to ensure that the safe systems of work devised are actually used in practice.
- Work with the provider of your upgrade solutions to determine the upgrade programme which reduces the risks posed by automatic binlifts most swiftly and practicably (see Q4 in WISH REF13 for guidance <https://tinyurl.com/4atusatj>)

<http://www.wishforum.org>



### **SAFETY IN THE OPERATION OF AUTOMATIC BIN LIFTING EQUIPMENT ON RCVs**

*This WISH information document is aimed at health and safety improvements in the waste management industry. The Health and Safety Executive provided support to WISH in producing this guidance. This guidance may go further than the minimum you need to do to comply with the law with regard to health and safety*

#### **Contents**

Introduction  
Background – accidents, hazards, and risks  
Physical safeguards and interim physical solutions  
Procedural controls  
Disclaimer and WISH  
Further reading and links

In March 2023 WISH issued a position statement on the safe use of RCV (refuse collection vehicle – bin lorry) bin-lift equipment in automatic mode. This sheet is based on the above statement, expanded to account for developments since its publication. It is anticipated this sheet will likely be revised and updated in the future to take account of further developments. This information sheet is primarily aimed at users of RCV bin-lifting equipment with automatic mode. Designers, manufacturers, and suppliers may also find the information useful.

Note – WISH has been asked numerous questions on the topics in this information sheet. To assist the sector, WISH has reproduced the most common questions asked and the answers to these as a FAQs sheet. This sheet is available as WISH REF 13 at: [WISH REF 13](#).



## The future..

- HSE and WISH are, and intend to remain, actively engaged with OEM's, users and others to support and assist the development of safeguards that address the risks that arise from the use of automatic binlifts.
- There are upgrade improvements already available BUT there are residual risks with all of them that users will need to address.
- Some of the solutions are innovative technology that need to be proven in use.
- Please, please, feedback your experiences to WISH, HSE, trade associations etc (so that we can update INFO26 and REF13 as needed)
- Questions and requests for updates can be submitted to [info@wishforum.org.uk](mailto:info@wishforum.org.uk)

## Fatal Accidents in W&R.

- Five year rolling average 2016 – 2020 (inclusive) 5
- Five year rolling average 2018 – 2022 (inclusive) 4.4
- In 2023 there were 11 fatal accidents in the sector.
- In 2024 (so far)
  - 31<sup>st</sup> Jan Child struck by reversing RCV (Scottish Borders)
  - 1<sup>st</sup> Feb Struck by reversing 360 excavator (Shropshire)
  - 8<sup>th</sup> Feb Struck by falling containment wall block (Greater Manchester)
  - 1<sup>st</sup> Mar Child struck by reversing RCV (Edinburgh)
  - 19<sup>th</sup> Mar Crushed between excavator and trailer (Kent)
  - 6<sup>th</sup> Apr MoP death following fall at HWRC (Surrey)
  - 10<sup>th</sup> May Crushed in compactor presumed in bin (Notts)
  - 8<sup>th</sup> July Entrapped in machinery (South Wales)
  - 17<sup>th</sup> Oct Entrapment/crushed by machinery (Fife)
  - 31<sup>st</sup> Oct Entrapment/crushed by machinery (Fife)
- Other reported RIDDOR and lost time accident rates for 2023 are also up
- No obvious trends or patterns.



## Update on WISH documents.

REF 07	Archive - example checklists COVID-19 and waste management	Archive version of support document to INFO 13 containing checklists for employers to check their controls against COVID-19 risk	Oct 2023	V3	3 Jul 20	N	N	Archive version of previous reference sheet
REF 08	Example mobile plant daily periodic checklist	Support document to INFO 19 on mobile plant operative training. Example of a daily/periodic checklist for mobile plant operators	Jul 2021	V1	NA	?	?	See above on INFO 19.
REF 09	Example mobile plant operator training record	Support document to INFO 19 on mobile plant operative training. Example training record form for mobile plant operators	Jul 2021	V1	NA	?	?	See above on INFO 19.
REF 10	Archive – COVID 19 and waste management operations	Archive version of INFO 13 to allow the information provided to stay in the public domain	Mar 2022	V1	NA	N	N	Archive version of previous information sheet
REF 11	Governance for joint venture WISH documents	Process and governance to be followed for joint ventures between WISH and other bodies to produce WISH documents	Feb 2023	V1	NA	N	N	Recent document - 2023
REF 12	Black bag splitting at HWRC/CA sites	Text from HSE position statement on black bag splitting at HWRC/CA sites. Includes hazards to be considered	Nov 2023	V1	NA	N	N	Awaiting placement on website
REF 13	Automatic bin-lifts FAQs sheet	FAQs sheet of commonly asked questions on automatic bin-lifts. Support document to INFO 26	Sep 2024	V1	NA	Y	Y	Now on Website
<b>DRAFTS</b>								
REF XX	WISH FAQs – commonly asked questions and the answers	Including, fires in collection vehicles, wearing shorts, safe distances to carry wastes during collections etc		V1	NA	Y	Y	Drafting underway
INFO 23	Bioaerosols in waste and recycling	Advice on the occurrence and control of bioaerosols in waste management and the health effects they can cause	Oct 2023	V1	NA	N	N	Recent document - 2023
INFO 24	Machinery safety - shredders	Dangerous parts of general shredders used in recycling etc, safeguards to be used and advice on safe design and operation	Oct 2023	V1	NA	N	N	Recent document - 2023
INFO 25	Working on the public highway (street cleaning) – training matrix	Support document to WASTE 24 safety in street and road cleansing activities, including litter picking from the sides of roads and traffic	Oct 2023	V1	NA	N	N	Recent document - 2023
INFO 26	Automatic bin-lifts on RCVs	Based on previous WISH position statement. Hazards and risks associated with bin-lifts used in automatic mode	Oct 2024	V1	NA	N	N	Recent document 2024
WASTE XX	Mental health in waste and recycling	Advice on the identification and management of mental health issues in the <del>waste</del> waste and recycling sector		V1	NA	Y	Y	Based upon the current ESA document

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