WISH Waste Industry Safety and Health Forum

SUPPORTING REFERENCE DOCUMENT

CASE STUDIES: BIN LIFTERS AND BINS ON WASTE COLLECTION LORRIES

This WISH reference document is aimed at health and safety improvements in the waste management industry. This document is linked to ***WISH WASTE 04 SAFE OPERATION OF WASTE AND RECYCLING VEHICLES*** *but is not a formal part of this guidance. It simply gives an example case studies on the topic – the aim being that you should not need to suffer this type of accident yourself before you take-action, rather learn from others' experience. The studies should not be taken as an indication of good practice – you need to decide how you will do things rather than simply copy, although these case studies may help you in deciding. All WISH reference documents are available on the WISH web site.*

Introduction

Wheeled refuse collection bins (both domestic 'wheelie bins' and larger sized trade waste bins) and vehicle mounted bin lifters have been in use in the UK since the mid1980s. Despite technological developments and collective experience with this equipment, significant numbers of serious accidents, including deaths, still occur. Guidance on the risks to workers/members of the public and how to manage those risks can be found in WISH Waste Information Document INFO 10 "Safe use of refuse collection vehicle bin lifters and bins". These case studies illustrate some of the common serious accidents that involve bin lifters and bins on waste and recycling vehicles.

Risk - Waste collector (loader) struck by the bin, still attached to the bin lifter, as it returns to ground level

***Case study*:** A refuse collection worker was at the vehicle's side mounted control panels when the raised bin lid fell off and struck the stop button on the other side of the vehicle. As he walked under the raised bin to release the stop button, his colleague released it from the other side of the vehicle and proceeded to lower the bin lifter. The collection worker was crushed between the bin and the ground, sustaining injuries as a result.

Risk - Waste collector struck by a bin falling from the bin lifter

Case *study*: A 1100 litre waste bin fell from a top loader bin lifter, killing the loader. Investigation revealed that, depending on the type of waste in the bin, the full weight of the bin may exceed both its own and the bin lifter's safe working load (SWL). Collectors require a simple method to determine if the total load of the bin and contents are within SWLs for both the bin and bin lifter. In addition, any incompatibility between the bin and bin lifter exaggerates the risk of the bin being released during the tipping cycle.

Risk - Waste collector becoming entangled in the bin lifter during the tipping cycle

***Case study*:** A seasonal collection worker was seriously injured when he was crushed by the bin lifter as it descended. He may have been attempting to stop the hopper overflowing by pushing waste back into the hopper while the bin was tipped. Information, training and supervision provided for seasonal workers should be suitable to ensure safe loading.

***Case study*:** A refuse collection worker was seriously injured when his foot was crushed in the bin lifter of a refuse collection vehicle. He stood on the bin lifter clamp bar so that he could be raised to remove lodged waste that was preventing the vehicle compartment roof from closing. Systems of work were not suitable to ensure that jams in the hopper and bin lifter mechanisms were cleared safely. Information, training and supervision was insufficient to ensure that a safe system was followed.

***Case study*:** In separate incidents two members of the public and a refuse collector were picked up by the bin lift clamp and dragged into the RCV hopper by an automatic bin lift. The injured persons were all seeking to deposit waste over the rave rail and into the hopper by hand. In leaning against, and, or, standing on the bin-lift mechanism they activated the automatic emptying cycle, the bin clamp gripped the clothing on their upper torso and dragged them up into the hopper. The systems of work failed to ensure that the members of the public could approach the vehicle; the system of work should have ensured that the automatic controls were deactivated when the vehicle was being manually loaded and the positioning and activation of the sensors should be configured to minimise the potential for such false activations of the bin lifting equipment.

Risk - Waste collector injured when releasing a waste bin 'hung up' on the bin lifter, or lost in the back of the hopper

***Case study*:** A collection worker climbed onto the bin lifter to remove a waste bin that had fallen into the hopper when he slipped and fell from the back of a refuse collection vehicle. Collectors did not have clear instructions not to climb onto bin lifters, and the on-call system was not able to provide backup staff to deal safely with such problems. Monitoring and supervision were not sufficient to ensure safe systems of work were adhered to.

Other accidents recorded

While no case studies are provided, other accident types recorded which you may need to take into account in your decisions include:

- Collectors injured when moving the waste bin to or from its storage place to the collection vehicle
- Collectors and members of the public struck by reversing vehicles
- Collectors and members of the public struck by vehicles moving forwards
- Workers injured and killed when they fall while riding on the outside of a moving vehicle