



Regulation 28: Prevention of Future Deaths Report

Mr David John CARPENTER (died 19th January 2023)

THIS REPORT IS BEING SENT TO:

1. [REDACTED], Managing Director, Dennis Eagle Ltd
2. [REDACTED], Engineering Director, Dennis Eagle Ltd

1. CORONER

I am: Delroy Henry, Area Coroner, Coventry. Coventry Coroners Office, The Register Office, Manor House Drive, Coventry, CV1 2ND

2. CORONER'S LEGAL POWERS

I make this report under the Coroners and Justice Act 2009, Schedule 5, paragraph 7 and The Coroners (Investigations) Regulations 2013, regulations 28 and 29.

3. INVESTIGATION and INQUEST

On 19th January 2023 I commenced an investigation into the death of David John CARPENTER (aged 60 years). The investigation concluded at the end the inquest on 22nd April 2024 at Coventry Coroners Court. The conclusion of the death of Mr Carpenter was that death was "accident" a copy of which I attach to this report.

4. CIRCUMSTANCES OF THE DEATH

Mr Carpenter was employed by Coventry City Council as a Refuse Collector. He was based at Whitley Depot, Coventry. His job involved collecting bins from the side of the road and taking them to a bin lorry/Rear Compaction Vehicle (RCV) to empty them. He worked as part of a team with another collector and a driver. The bin lorry involved in the incident was a Dennis Eagle lorry equipped with a Terberg 'Omnideka' automatic bin lift system. The Terberg bin lift system comprises two 'lifting chairs' which enable two household-sized waste bins to be emptied side by side. Each lifting chair has its own control panel located on the rear of the vehicle. The controls are used by bin crew to switch between different modes of use. The bin lift system can be operated in two modes (manual

and/ or automatic) the two lifting chairs capable of operating independently of each other. CCTV cameras are fitted to these vehicles. Mr Carpenter was lifted into the rear hopper of this bin lorry when he activated the proximity start sensor and his coat became caught on the lifting chair comb tooth associated with the bin security switch. The machine through the automatic compaction cycle tragically causing Mr Carpenter fatal injuries.

5. CORONER'S CONCERNS

During the inquest, the evidence and information revealed matters giving rise to a concern. In my opinion, there is a risk that future deaths will occur unless action is taken. In the circumstances, it is my statutory duty to report them to you.

The MATTER(S) OF CONCERN are as follows:

- i. The inquest explored issues such as the safety of the machinery (the bin lorry, in particular the bin lift system in automatic mode).
- ii. The life span of this type of machinery i.e. Bin lorries is 8 – 12 years. There are thousands of bin lorries of this or similar design still in circulation in April 2024. The evidence was it is *estimated* 4 to 6 million residential bins are lifted every day by bin lorries provided by the manufacturers.
- iii. It was/ is foreseeable that both workers (e.g. refuse collectors) and members of the public will approach the danger zone at the rear of the RCV. In the case of workers, for example, to remove debris/ detritus which occurs frequently on residential waste collection rounds.
- iv. The circumstances of this inquest touching upon the death of David Carpenter in January 2023 accentuated this point.
- v. A risk of inadvertent whole-body lifting into the manufactures bin lorry hopper of a person in the danger zone carries with it a risk of death.
- vi. Since the incident “new” machine designs [as of January 2024] deal with some, but not all issues, as arose in the in the inquest e.g. differentiation between a bin and a person; warning signs easily visible to the public and reminding bin operatives; additional estops being more accessible from within the danger zone unlike the design in January 2023 in which transparent screens were adjacent to the bin lift controls and the emergency stop and thereby an obstacle to the accessibility of the emergency stop when an emergency arose with a person located within the danger zone; audible bleeps confirming the engagement and disengagement of automatic mode. The “new” machines however are very few when considered in totality of huge number of the manufactures RCV in circulation.
- vii. The availability of “modification software” (this software (amongst other functional changes) monitoring the RCV sensors [*bin lost function*] with the effect that a person may still be inadvertently lifted into to the hopper but the automatic compaction cycle now not engaging and thus some risk of death is reduced) in relation to vehicles of the same or similar specification to that in the inquest is at choice and cost to the user.

- viii. The cumulative effect being potentially important changes in the machinery in this hazardous working environment are inordinately slow, thus significant mechanical risks (best managed by the manufacturers) remain in April 2024 and compounded by the fact that the volume of work is high in this aspect of the waste industry i.e. millions of bin lifted daily.
- ix. In addition there are example of issues which remain insufficiently considered/ actioned in relation to these 'machines of suboptimal safety' which include "sun glare on monitors" in the drivers cab which impact upon the ability of a driver to more clearly see the rear of the bin lorry and observe refuse collectors and thereby enhance safety in the hazardous job of refuse collection, mindful an emergency stop button is readily accessible in the drivers cab; clearly visible public warning signs about the danger zone remain deficient; the continued use of a Perspex/ transparent screen between the rear bin lift controls and the danger zone which amounts to an obstacle to a person activating the emergency stop in an emergency.
- x. There remains (now 15 months post Mr Carpenters death) thousands of machines of 'sub optimal' safety on UK roads. The bin lorry manufacturers with some 8- 10 thousand lorries (albeit not all at automatic mode RCVs) on UK streets.
- xi. The evidence was customers are most, if not all Local Authorities in UK. The manufacturers sell to waste contractors who collect on behalf of Local Authorities and sell to hire company from who Local Authorities hire vehicles. The cumulative effect is such that a concern as to future deaths exists as of April 2024.

6. ACTION SHOULD BE TAKEN

In my opinion, action should be taken to prevent future deaths and I believe that you have the power to take such action.

7. YOUR RESPONSE

You are under a duty to respond to this report within 56 days of the date of this report, namely by 17th June 2024. I, the Coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise, you must explain why no action is proposed.

8. COPIES and PUBLICATION

I have sent a copy of my report to the following:

1. HHJ Thomas Teague KC the Chief Coroner of England & Wales Chief Coroner's Office, 11th Floor Thomas More, Royal Courts of Justice, Strand, London, WC2A 2LL. chiefcoronersoffice@judiciary.gsi.gov.uk
2. David Carpenters family.
3. Coventry City Council.
4. Heath and Safety Executive
5. Waste Industry Safety and Health Forum

I am also under a duty to send a copy of your response to the Chief Coroner and all interested persons who in my opinion should receive it. I may also send a copy of your response to any other person who I believe may find it useful or of interest.

The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest.

You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response.

Date: 22nd April 2024

A handwritten signature in black ink, consisting of several overlapping, fluid strokes that form a cursive, somewhat abstract shape. The signature is positioned to the right of the date.