Case No: E90WC029

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
WINCHESTER DISTRICT REGISTRY

Winchester Guildhall, SO23 9GH

BETWEEN:

CORAL LEWINGTON

Claimant

and

EAST COAST MAIN LINE COMPANY LIMITED

Defendant

Before :

HIS HONOUR JUDGE PARKES QC
(Sitting as a Judge of the High Court)

25-26 October, 12 November 2021

Adam Gadd, instructed by Barker Son & Isherwood LLP, for the claimant
Nigel Lewers, instructed by DWF Law LLP, for the defendant

JUDGMENT

Introductory

1. On the second day of the trial of this claim, at the conclusion of evidence limited to liability, and after hearing submissions, I held that the claimant had failed to prove her case against the defendant, and I dismissed her claim. I gave a brief ex tempore explanation for my decision on 26 October, but these are my full reasons.

2. The claim is for serious personal injuries suffered by Ms Lewington as a result of a fall from a carriage of a train operated by the defendant at Wakefield Westgate Station on 21 July 2015. It is common ground that she was struck by a closing door as she alighted from the carriage, lost her balance and fell to the platform.

3. The defendant was then the operator of the Virgin East Coast train from which the claimant fell, and it was also responsible for the operation of Wakefield Westgate station. Since June 2018, responsibility for its operations has passed to London North Eastern Railway (LNER).

4. I had declined to order a split trial at the pre-trial review on 24 September 2021, for reasons which need not be repeated here, but ordered that liability should be dealt with first at the trial, and told counsel that, if the evidence justified it, I would in principle be amenable to an application to make a ruling at the close of the evidence on liability. That, in the event, was what happened, and it was achieved without the need to put the claimant through the stress of giving evidence.

Pleaded issues

5. The Particulars of Claim allege that the accident was caused or contributed to by the negligence and/or breach of statutory duty (under the Occupiers Liability Act 1957) of the defendant. The particulars of negligence and breach of statutory duty are (i) causing or allowing the train door to come into contact with the claimant as she alighted from the train, (ii) failing adequately or at all to warn the claimant that the train door was closing, (iii) providing for the use of a train door which was defective or dangerous, (iv) exposing the claimant to a danger or a trap or a foreseeable risk of injury, (v) failing to devise, institute or operate a safe system for the operation of the train door, (vi) failing to take such care as in all the circumstances was reasonable to see that the claimant would be reasonably safe in using the train, contrary to s.2 OLA 1957, (vii) failing to warn the claimant adequately or at all to enable her to be reasonably safe in using the train, contrary to s.2 OLA 1957, and (viii) failing to discharge the common law duty of care to see that the claimant was safe pursuant to s.2 OLA 1957.

6. The Amended Defence pleads that the door close button was unintentionally activated by the first passenger to alight from the train. That is my own conclusion, and it has been common ground. It is also pleaded that the door controls, the door closing alarm and the door bounce strip were all working normally; that no faults with any of the mechanisms of the door were found; and that the doors were maintained in good working order.

7. As to the allegations of breach of duty, the defendant pleads that (i) all reasonable steps were taken to warn the claimant that the door was about to close and to avoid any untoward contact between the door and her – there was a door closing alarm which told the claimant that the door was about to close, and a door bounce strip which stopped the door closing further on detecting her presence; (ii) she knew the door was about to close because the alarm sounded; and (iii) the door operating mechanisms were investigated and no faults were found.

8. The defendant also pleads contributory negligence, alleging that the claimant failed to heed the door alarm, attempted to leave the train when the door was about to close, and failed to avoid contact with the door, to

use the step, to keep her balance, to heed the warning signage and to use the open push button to re-open the door.

9. The claimant's case was summarised by Mr Gadd in his skeleton argument, as being "straightforward: the inadvertent closing of the door as C exited created a foreseeable risk of harm. D failed to warn her at all of that risk or failed to give adequate warning of that risk to enable her to be reasonably safe".

10. In fact, the case was not quite that straightforward. By the start of the trial, the issues on liability had effectively resolved into two. One was whether the audible alarm, warning that the door was about to close, actually sounded. The second was whether the defendant had breached its duty of care by failing properly to assess and obviate the risks posed to passengers by inadvertent operation of the door close button. That was a reference to a risk assessment which considered the safety consequences of a proposed re-design of the passenger-operated door controls in 2003, and in particular the consequences of unintended or inadvertent operation of the door controls when the train was stationary in a station.

Witnesses

11. I heard the evidence of three lay witnesses. They were Mark Nuttall, who was called by the claimant, and was a passenger on the train who was immediately behind the claimant as she alighted; Paul Meikle-Jones, the duty team leader at Wakefield Westgate station at the time of the accident; and Rachael Smith, a station customer service assistant, who had the responsibility for dispatching the train and was on the platform before the train arrived at the station.

12. I also heard from the LNER Head of Engineering and Assurance, Dr Wain, and from two engineering experts, Dr Cox and Mr Metcalfe. Dr Cox, who was instructed by the claimant, is an engineer with a substantial academic background, a chartered engineer and Fellow of (inter alia) the Institution of Mechanical Engineers. His particular expertise is in risk assessment and as a safety consultant, and has employed that expertise in a wide variety of industries, including the railways. Mr Metcalfe, by contrast, is a chartered electrical engineer and Fellow of the Institution of Railway Operators. He worked for 28 years at British Rail, his last post having been Head of Safety. He has since worked as a railway safety consultant, particularly in the specification of train safety systems.

13. All the witnesses who gave oral evidence did so in person. However, Mr Lewers, counsel for the defendant, did not wish to cross-examine the claimant on her evidence as to liability, so it was agreed that to spare her unnecessary stress I should read the single relevant paragraph of her witness statement, the contents of which are not in issue.

Train operation

14. Before I turn to the details of the evidence which I heard and read, it is convenient to refer to aspects of the train's operation which are common ground.

15. The train was made up of what are known as Mk 4 coaches, which have sliding doors on each side of the train and at both ends of the carriage. The area of the carriage immediately inside the door, leading to the passenger compartment, is known as the vestibule. Each vestibule has passenger controls, by the door, which have two buttons, one to open the doors and one to close them. However, the passenger controls can only be operated when the train has arrived at a station and the guard (or train manager) has enabled them. They can then be operated by passengers until the doors are closed by the guard before the train departs. There is no suggestion in this case that the door closed as a result of any action by the guard, so I shall say no more about that aspect of the train's operation.

16. The passenger door controls are highly material to the claim. Until 2003, the door controls, which had the shape of squares with rounded corners, were more or less flush with the panel into which they were set. As now, there were two buttons, the upper one for opening the door and the lower for closing it. In 2003, a new design was introduced, which was fitted at the time of the accident. It was conceived to comply with the requirements of the Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations ("RVAR"). The parties have referred to the 2010 RVAR, although they were not in force in 2003, when the relevant regulations were the 1998 RVAR, SI 1998:2456 (later replaced by the 2010 RVAR, SI 2010:432). However, it is common ground that the RVAR related to the positioning and ease of use of the controls. The housing was lowered, and instead of flush buttons, the new controls took the form of round buttons, each housed in and very slightly proud of a round bezel.

17. After the claimant's accident, the door close button (but not, I think, the door open button) was redesigned, so that the bezel stood proud of the actual button, which was thus slightly recessed within the bezel. The purpose of that alteration was to make inadvertent activation of the door close button less likely. It is not, I think, in dispute that many operators and fleets of trains have not adopted the raised bezel and continue to use the pre-2016 design.

18. The Mark 4 trains have a number of safety features which are of varying relevance to the claimant's accident.

19. Firstly, the door has a sensitive edge, known as a "bounce strip", which contains a tube of air. When the closing edge of the door encounters resistance, the tube is squeezed, activating a pressure switch. That causes the door to stop and re-open. However, the resistance must be sufficient to activate the switch. For instance, a passenger who wants to stop the

door closing can hold it up with his hand, as Mr Nuttall did in this case, and the door will open. As Dr Wain pointed out, the bounce strip is not fitted with touch sensors: it is designed so that the door will re-open when there is an obstruction.

20. Secondly, there is a sign above the passenger door controls. One third of the sign is taken up with a warning triangle with an exclamation mark, and the text below reads:

> "**Caution**
> Keep clear of the doors
> Do not attempt to leave the train when the doors are closing
> Do not obstruct the doors
> Use emergency release if the doors are obstructed".

No criticism was made of the signage by the claimant's expert, Dr Cox.

21. Thirdly, and most importantly, there is an audible alarm which sounds after the door close button has been pressed, for a minimum of 3 seconds before the door starts to close. In other words, there is a 3 second warning that the door is about to close. The question of whether the alarm sounded is an important issue.

Why did the train door close?

22. There was good CCTV of the scene inside the vestibule of the train. I was able to watch it several times. In addition, as part of their joint statement, the experts most helpfully produced an agreed timeline of events as the train came to a halt and the doors opened on arrival at Wakefield Westgate, illustrated by still photographs taken from the CCTV. There was therefore no doubt about the timings or about the sequence in which the passengers got off. Unfortunately, the CCTV does not record sound, so there is no tape to show whether or not the alarm operated.

23. The first passenger (P1) to emerge from the passenger compartment and to enter the vestibule was a large young woman who operated the Door Open button, and caused the door to slide to her right until it was fully open. Her size, or at least her width, is relevant, because it is clear to me that as P1 stepped towards the door, she must have knocked the Door Close button. This was at 20.16:48.69. She stepped down from the train. When P1 was on the platform, she looked round at the left side of the opening. It is unclear what caused her to do so. At 20.16:49.93, the second passenger (P2) stepped through the door and onto the platform.

24. By now, the claimant, who was the third passenger, was in the vestibule and moving towards the door. She arrived at the doorway at 20.16:52.17, just as the fourth passenger (P4: Mark Nuttall) entered the vestibule from the passenger compartment, looking at his mobile phone. Unfortunately, the claimant stepped down on the right hand side of the doorway, the side

from which the door swings across to close, with her right arm almost brushing the right hand side of the doorway, and at 20.16:52:69 it is possible to see the door starting to close following P1's inadvertent pressing of the Door Close button. By that time the audible alarm should have sounded for at least 3 seconds, warning the claimant not to alight. The closing door panel seems to have knocked the claimant off balance as she stepped down, and she fell to the platform when the door was no more than about one quarter closed. P4 pushed the door open, using the bounce strip, and stepped out to help the claimant.

25. The reason why I am confident that P1 knocked the Door Close button is partly that she does appear to have made contact with it, brushing against the left hand side of the door opening as she stepped down, and partly that both experts agreed with Dr Wain that the fact that the door did not close again after P4 pushed it open proves that the train dispatch process (by which the guard closes all the train doors) had not been initiated. Given that the train had only just arrived at the station, that is hardly surprising. There was therefore no other mechanism, apart from P1's action, which could have caused the door to close.

Did the door alarm fail to sound?

26. This was the claimant's evidence, taken from paragraph 4 of her witness statement:

    "On 21 July 2015 at approximately 8pm I was on a Virgin train, train 1A50, arriving at Wakefield Westgate Station. The train came to a halt at the platform and I queued to alight. The door to the train compartment and two people left the train before me. As I attempted to alight from the train in a normal and careful manner, but before I could put my foot on the stepboard, the train door suddenly and without warning closed on me, hitting my right shoulder with force, putting me off balance and causing me to fall to the platform below. There was no reason for it to close and I did not hear an alarm sound and I did not touch any button before alighting. I recall speaking with a member of the train staff who said she could not understand what had happened as they hadn't given instructions for the doors to close."

27. Mr Mark Nuttall, P4, said that as the claimant stepped off the train, the door closed on her "without warning", and that when it hit her she fell to the platform. He had to push the door back, as is apparent from the CCTV. He was behind the claimant but did not see anyone press the door open button. I interpolate that he would not have seen P1 press it, as I believe she did, because at the time he had not emerged from the passenger compartment into the vestibule.

28. More importantly, Mr Nuttall said in his witness statement that "No alarm sounded". Cross-examined, he accepted that (as was plain from the CCTV) he was intent on his mobile phone as he came into the vestibule. It is clear

from the experts' time line that P1 would have brushed the door close button at 20.16:48:69. That is the time when the alarm should have started sounding. The door can be seen to be starting to close at 52:69, by which time the alarm would have stopped; and Mr Nuttall entered the vestibule at 52:17. That being so, he could only have been in the vestibule while the alarm was sounding for a maximum of .52 of a second (52.69 minus 52.17), and almost certainly less (because it would have stopped before the door started closing). On that basis, it was put to him that, preoccupied as he was with his phone, he simply missed that half second of alarm. He answered that he recalled the door closing and no alarm sounding. Then, pressed, he said "No alarm sounded. I heard no alarm. I like to think I would have heard it". When it was suggested that he was mistaken, he said "No, I am 100%", which I had noted as being followed by "that I did not hear the alarm", but Mr Gadd said that in fact Mr Nuttall said "No, I am 100% that it did not sound".

29. There was also in the bundle a witness summary of a passenger called Jennifer Walpole. She did not give evidence, and her summary was no more than a statement of what the claimant's solicitors hoped that she would say (although Mr Gadd told me it represented a statement made to his solicitors which, for whatever reason, she did not sign. But if so there was no statement from the solicitor who took the statement, which might have enabled it to go in under the Civil Evidence Act). For what it is worth, which is almost nothing, that summary recorded her as saying, or as being intended to say, that she was in the vestibule and did not hear an alarm.

30. As against the evidence of the claimant and Mr Nuttall, there was also evidence to show that the alarm was operational. Mr Meikle-Jones, the duty team leader (and therefore the person in charge) at the station, was present when the guard checked the operation of the door after the accident, once the claimant had been moved. The guard checked that the door was operating correctly two or three times. The door closed and the alarm sounded, and everything was working as it should. He made a report at around 2030, before he came off shift. In that report, he answered a section asking him to give details of any inspection of the area of the accident, by writing "Both the train door – step – and platform checked and no fault found". He did not mention the alarm. He was asked why he did not mention the alarm. That, he explained, was that he had done hundreds of such reports, and knew that it was enough to say that no fault was found. That included the alarm. If his line management wanted more detail they would ask for it. Had he found a fault with the alarm he would have written "Problem with hustle alarm – train guard locked door out of use", or something to that effect; he would, he said, definitely have mentioned it. That seemed to me to be an entirely plausible response. If the alarm had not been working, then there would have been a fault with the train door, and he would not have entered "No fault found".

31. Dr Linda Wain, Head of Engineering and Assurance at LNER (the defendant's successor as operator) gave evidence that the door was further tested that day at the Bounds Green depot in London, where no fault was found. The tests included the door closing alarm, and it was working normally. She accepted that all equipment can have intermittent faults, but given that it worked when tested at the scene, and again when tested at the depot, in her experience the chances of the alarm not working just on the occasion when the claimant alighted were infinitesimally small. She also referred to emails dated 22 July, the morning after the accident, in which James Brinicombe, a systems engineer, asked the Controller, Maintenance, to pass on a message to the fitter at Edinburgh who would be checking the door, specifying some tests that he should carry out. It appears, therefore, that the door was going to be checked again at Edinburgh. Dr Wain could not say what the outcome had been, but the likely answer appears from an email at Appendix D to Mr Metcalfe's report from Mike Cochrane, Senior Technical Manager, dated 23 July 2015, which refers a standard post-incident door test and further testing at Edinburgh on 22 July, and states that no fault was found.

32. I am sure that Mr Nuttall was an honest witness, doing his best to tell the court what happened. But he did not make his witness statement until nearly five years after the claimant's accident; and it is apparent from the CCTV timeline that he was only in the vestibule for half a second at most during the period that the alarm (if working) would have been audible, and was pre-occupied with his mobile phone.

33. There is a recognised risk that when there is a long lapse between the relevant events and a witness' evidence about them, the witness will unconsciously reconstruct events rather than recalling them, and in this context I have reflected on the well known words of Leggatt J in *Gestmin SGPS SA v Credit Suisse (UK) Ltd* [2013] EWHC 3560 (Comm), where at paragraphs[15]-[22] the judge made a number of observations about the operation of human memory:

> [15] An obvious difficulty which affects allegations and oral evidence based on recollection of events which occurred several years ago is the unreliability of human memory.
>
> [16] While everyone knows that memory is fallible, I do not believe that the legal system has sufficiently absorbed the lessons of a century of psychological research into the nature of memory and the unreliability of eyewitness testimony. One of the most important lessons of such research is that in everyday life we are not aware of the extent to which our own and other people's memories are unreliable and believe our memories to be more faithful than they are. Two common (and related) errors are to suppose: (1) that the stronger and more vivid is our feeling or experience of recollection, the more likely the recollection is to be accurate; and (2) that the more confident another person is in their recollection, the more likely their recollection is to be accurate.
>
> [17] Underlying both these errors is a faulty model of memory as a mental record which is fixed at the time of experience of an event and then fades (more or less slowly) over time. In fact, psychological research has demonstrated that memories are fluid and malleable, being constantly rewritten whenever they are retrieved. This is true even of

so-called 'flashbulb' memories, that is memories of experiencing or learning of a particularly shocking or traumatic event. (The very description 'flashbulb' memory is in fact misleading, reflecting as it does the misconception that memory operates like a camera or other device that makes a fixed record of an experience.) External information can intrude into a witness's memory, as can his or her own thoughts and beliefs, and both can cause dramatic changes in recollection. Events can come to be recalled as memories which did not happen at all or which happened to someone else (referred to in the literature as a failure of source memory).

[18] Memory is especially unreliable when it comes to recalling past beliefs. Our memories of past beliefs are revised to make them more consistent with our present beliefs. Studies have also shown that memory is particularly vulnerable to interference and alteration when a person is presented with new information or suggestions about an event in circumstances where his or her memory of it is already weak due to the passage of time.

[19] The process of civil litigation itself subjects the memories of witnesses to powerful biases. The nature of litigation is such that witnesses often have a stake in a particular version of events. This is obvious where the witness is a party or has a tie of loyalty (such as an employment relationship) to a party to the proceedings. Other, more subtle influences include allegiances created by the process of preparing a witness statement and of coming to court to give evidence for one side in the dispute. A desire to assist, or at least not to prejudice, the party who has called the witness or that party's lawyers, as well as a natural desire to give a good impression in a public forum, can be significant motivating forces.

[20] Considerable interference with memory is also introduced in civil litigation by the procedure of preparing for trial. A witness is asked to make a statement, often (as in the present case) when a long time has already elapsed since the relevant events. The statement is usually drafted for the witness by a lawyer who is inevitably conscious of the significance for the issues in the case of what the witness does nor does not say. The statement is made after the witness's memory has been "refreshed" by reading documents. The documents considered often include statements of case and other argumentative material as well as documents which the witness did not see at the time or which came into existence after the events which he or she is being asked to recall. The statement may go through several iterations before it is finalised. Then, usually months later, the witness will be asked to re-read his or her statement and review documents again before giving evidence in court. The effect of this process is to establish in the mind of the witness the matters recorded in his or her own statement and other written material, whether they be true or false, and to cause the witness's memory of events to be based increasingly on this material and later interpretations of it rather than on the original experience of the events.

[21] It is not uncommon (and the present case was no exception) for witnesses to be asked in cross-examination if they understand the difference between recollection and reconstruction or whether their evidence is a genuine recollection or a reconstruction of events. Such questions are misguided in at least two ways. First, they erroneously presuppose that there is a clear distinction between recollection and reconstruction, when all remembering of distant events involves reconstructive processes. Second, such questions disregard the fact that such processes are largely unconscious and that the strength, vividness and apparent authenticity of memories is not a reliable measure of their truth.

[22] In the light of these considerations, the best approach for a judge to adopt in the trial of a commercial case is, in my view, to place little if any reliance at all on witnesses' recollections of what was said in meetings and conversations, and to base factual findings on inferences drawn from the documentary evidence and known or probable facts. This does not mean that oral testimony serves no useful purpose – though its utility is often disproportionate to its length. But its value lies largely, as I see it, in the

> opportunity which cross-examination affords to subject the documentary record to critical scrutiny and to gauge the personality, motivations and working practices of a witness, rather than in testimony of what the witness recalls of particular conversations and events. Above all, it is important to avoid the fallacy of supposing that, because a witness has confidence in his or her recollection and is honest, evidence based on that recollection provides any reliable guide to the truth.

34. Those passages are of course not a statement of law, binding on me. They are no more than a helpful, and very persuasive, judicial warning of the limitations of human memory. But they give me pause in this case, where Mr Nuttall made his witness statement many years after an incident which happened very suddenly and unexpectedly, and which will have affected him deeply out of his decent and humane concern for his unfortunate fellow-passenger. Until the accident happened, he will not have been paying any particular attention to his surroundings, as is obvious from the CCTV. Yet, almost five years later, he maintains with "100%" confidence that the alarm did not operate. While I accept completely his honesty in giving that evidence, I am deeply sceptical that he can possibly remember with such certainty something that he could have heard for no more than half a second, followed as it immediately was by a very traumatic incident.

35. I accept, of course, that the claimant also said in her witness statement that she did not hear an alarm sound, and I am confident that she also was saying no more than she believed to be true; but I am even less willing to rely on her evidence than I am on Mr Nuttall's, for in her case she suffered an appalling accident seconds afterwards which has blighted her life. Against that dreadful trauma, the chances of her really being able to say with accuracy whether or not an alarm did sound just seconds before she fell seem to me to be remote.

36. As against their evidence, the court has the evidence that the guard checked the door two or three times before the train left the station, and that it was working without fault; and that the door was again tested at the Bounds Green depot and found to be working, again without fault. There is always the possibility with any engineering system of intermittent fault, as both Dr Wain and Dr Cox point out, but I agree with Dr Wain that the chances of the door alarm having failed on the one occasion when the claimant alighted are remote (even if not, for the reasons given by Dr Cox, "infinitesimally small"). It seems to me far more likely that the door alarm was working then also.

37. For what it is worth, it seems to me likely that the reason why P1 turned round after she had alighted was that she heard the door alarm, which she would not have expected. Dr Cox said that neither P4 (Mr Nuttall) nor the claimant show any sign of having heard any door alarm. I agree with him, but am not sure what sign he would have expected to see. In the experts' joint statement, Dr Cox suggests that none of P2, P3 and P4 showed any urgency, and did nothing to stop the door until it actually started closing. I do not find that very surprising. These alarms are part of the common

experience of rail travellers, for whom a prematurely closing door is nothing out of the ordinary; and I would not have expected anyone to respond visibly to something which in my view they would all regard as commonplace. As Dr Wain said, not everyone takes any notice of the alarm. They would not have been likely to imagine that the train was departing, given that it had only drawn to a halt at Wakefield around 20 seconds earlier. They might, I accept, have responded by pushing the Door Open button, but they were as likely to deal with the alarm by pushing the door back as it attempted to close, which in the event is what Mr Nuttall did.

38. In the circumstances, the claimant did not persuade me that the door had malfunctioned in any respect. Indeed, I find that it operated in all respects as it should have done, and in particular that the audible door-closing alarm sounded in accordance with its design. (I should add that the audibility of the alarm was raised as an issue, but it was not a pleaded issue or one considered by the experts beyond their agreement that the alarm fitted was compliant with rail industry standards.) It follows from that finding that the claimant must have continued to proceed through the door despite the door closing alarm sounding.

The 2003 risk assessment

39. The 2003 passenger door control upgrade was undertaken to meet new requirements for disabled accessibility. The design lowered the controls and provided that the button should be operable with the palm of the hand with a force of less than 15 Newtons.

40. The process was described by Dr Cox. It appears that an Engineering Change Form 1 was submitted by Bombardier Transportation (who, I take it, were responsible for the manufacture or maintenance of the rolling stock) at the request of HSBC Rail, the then owners of the fleet. The proposed change is "New internal and external door pushbuttons to meet RVAR requirements".

41. In the process of risk assessment for the proposed upgrade, which had taken place in 2002-2003, Bombardier raised the question : "With the buttons standing proud, will there be an increase (sic) risk of unintentional operation"? The response to that and other questions stated that the modification had been designed specifically to lower the door control pushbuttons to a level compliant with the RVAR, and that due to its raised design, the button could be operated by the palm of the hand with an actuating force less than 15 Newtons. It went on to make the point that in order to comply with RVAR, "the buttons must stand proud so as to be identifiable by touch". The answer to the specific question about increased risk was as follows: "There may be an increased risk of unintentional operation but as the door release arrangements are unchanged we do not perceive a risk to the operation of the train".

42. Dr Wain explained the reference to the "operation of the train" as being a reference to the risks to the safety of staff, track workers and passengers, all of which were embraced within the rubric of operation of the train. This was not about financial risk, or the performance of the train, which had different risk assessments.

43. The expert witnesses, Dr Cox and Mr Metcalfe, agreed that the 2003 changes to comply with the RVAR, by which the buttons were lowered and made to protrude from their housing instead of being flush with it, made them more exposed to inadvertent operation by passengers as they passed through the doorway. That seems plainly correct, as well as likely to have been difficult to avoid, given that the purpose of the re-design was to make the buttons more accessible to disabled people. They went on to state their agreement that "the risk of inadvertent operation of the door close push button could be considered as being insufficiently risk assessed during their design/fitment".

44. Dr Cox's view, stated in his report, was that the assessment should have considered (but failed to consider) the whole range of possible ergonomic hazards, and the whole range of users, arising from a significant change to the user interface of the system, and specifically failed to address an identified hazard, namely the increase in risk of unintended operation of the new controls.

45. Dr Cox's analysis was not in that respect entirely accurate. There was not an "identified hazard" of increased risk of inadvertent operation: increased risk had been expressed as a possibility, not a given, and the question of whether there was an increased risk was not, it seems to be agreed, fully considered before it was answered. It was conceded that there might be an increased risk, but that since the door release arrangements were not changed, there would be no risk to the operation of the train (ie, as Dr Wain explained it, to the safe operation of the train *vis à vis* staff or passengers). There seems to have been no more profound analysis of whether there was in fact an increased risk, or of what (if there was) the consequences of that increased risk might have been.

46. Mr Metcalfe, in his report (at 4.6.9), had taken the view that "The risk of inadvertent operation of the door close push button … could be considered as insufficiently risk assessed when the modified push buttons were fitted. The process used was comparable to the risk assessment process that was applied by the rail industry at that time, but it did not formally record and consider the potential likelihood or consequence of the design change and the control measures within the design and control of the external passenger doors". He went on to explain at 4.6.10 that "to do the risk assessment accurately the risk assessor would need access to data on the frequency and consequences of the inadvertent operation of the door close push button. This data would not be available for this new type of push button and, to the best of my knowledge, the data on inadvertent operation of door close push buttons was not recorded by the

Rail Safety Standards Board or train operators in the UK rail industry in a format that could have been made readily available for the risk assessor to use". In cross-examination, he made clear that his criticism of the assessment was in essence that the assessors' processes of reasoning were not recorded. He said that the assessors should have documented their reasons for believing that the design was acceptable as a means of managing inadvertent operation. They should have documented the circumstances in which such operation was likely, and the likely consequences, and determined whether the residual risk was tolerable.

47. In short, the experts were agreed, apparently for rather different reasons, that the risk assessment had not been adequate. For my own part, I would have thought that, given the absence of available records about accidents involving the previous door controls, and the fact that the 2003 design was fairly new (although already in use) it would have been very difficult at the time to assess the increased risk of inadvertent door closure. But I do not go behind the experts' agreement that it was inadequate, and in any case its adequacy or inadequacy should be considered in the context of later events as they happened, because, as Dr Wain said, a risk assessment is a living document.

48. The next question was: if a full and proper risk assessment had been carried out, either in 2003 or later, as evidence of incidents involving passengers being caught in closing doors became available, what would or should have been done?

49. Mr Metcalfe considered that even had the risk assessment reflected the then current practice, the risk level found would not have required any change to the design. He had formed that view after taking into account of the relatively low number of accidents to passengers alighting or boarding who were struck or trapped by a closing door, and of the minor consequences of such accidents. There were control measures in place to mitigate against the risk of inadvertent operation (eg in particular the door alarm and the bounce strip), and any risk had to be balanced against the need for the button to be operable by the palm of the hand exerting a force of no more than 15 Newtons. In his view, the infrequent nature of such accidents during the period for which figures were available, and the minor consequences for those involved until the claimant was injured, would have made it difficult to justify a change in the design. He regarded his view as confirmed by the fact that although the defendant changed the design in 2016, in the aftermath of the claimant's accident (discussed below) many other UK fleets still operate with the same design. The modification brought in by the defendant has not been mandated by the Rail Safety Standards Board or recommended in a Rail Industry Code of Practice or Guidance Note.

50. Dr Cox, by contrast, was of the view that the consequences should be assessed not only on the basis of what had happened in the past, but on the potential of past incidents for more serious outcomes, including

serious injury or fatality. Any other interpretation of risk assessment practice would imply that it was sufficient to wait for accidents to happen before responding, whereas the whole purpose of risk assessment was to identify and manage hazards before accidents happened. He also made the point that reported accidents might well be outnumbered by "near misses" in which no harm was done and nothing was recorded.

51. It was established, and confirmed by Dr Wain, that no figures had been available for inadvertent operation of doors during the period from 2003-2012. Mr Metcalfe's report, as I have already said, stated that data for inadvertent door operation of the new door controls were not available at the time of the risk assessment, no doubt for the very reason that the controls were new. However, figures were available for the period 2012-2015, and they were examined in some detail.

52. Mr Metcalfe referred in his report to 41 incidents, of which 26 involved a passenger boarding or alighting from a train, and of which 12 were possibly caused by a person operating a door close button (ie intentionally or by accident). I did not entirely understand Mr Metcalfe's figures, which appeared to be data from the Office of Road and Rail for 2014 to 2018.

53. The figures used during the trial were different. They are those annexed to Dr Cox's report. They show 30 incidents between 2012 and 2018 involving passengers being caught in or struck by a closing door, 19 before the claimant's accident and 11 after it. In almost all cases, the cause was not established, and in most cases where the incident was investigated, no fault was found; however, in 7 cases before the claimant's accident, and 7 after it, operation by a passenger was thought a possible cause. In 3 cases before the index accident, and 6 after it, there is reason to suppose that operation may have been inadvertent. Only one passenger was reported as having fallen to the platform, and no serious injuries were recorded.

54. Dr Wain, asked about the 2003 risk assessment, said that such assessments were in effect living documents, to be revised in the light of experience. She believed that based on the information available at the time, the assessment was suitable and sufficient, but with the benefit of hindsight (I believe that she was referring to the incident reports) she took a different view. She had not then been in post, but would have expected that the Local Management Group (LMG) would have met to consider incidents as they happened, and would have reconsidered the risk assessment in the light of those incidents. She could not say that they did, but it was clear that since she had taken up her post, that was normal practice. It would, she said, be a standard agenda item for consideration. However, her view was that the LMG would have chosen to keep matters under review: it was unlikely that they would have thought it right to call for a design change, on the back of a series of minor incidents.

55. She pointed out that it was not possible to eliminate all accidents: the task was to identify the hazard and its possible consequences. There were measures to mitigate that risk, as the 2003 risk assessment pointed out: they were in particular the audible alarm, the signage and the bounce strip on the door. There was a principle for management of risk, known as ALARP, for "as low as reasonably practicable". All hazards had potential consequences. It was necessary to consider whether a risk was negligible, tolerable or intolerable. Many risks fell into the "tolerable" category, and it was then necessary to consider what could be done to reduce them within practicable bounds. Until the claimant's accident, the incidents of doors closing on passengers were very rare in the context of some 4.247 million door movements per annum on the defendant's IC225 trains, and c13.3 million passengers boarding and alighting in 2014/2015, and in addition the consequences of such accidents as did happen were minor. Given the defendant's obligations of compliance with the RVAR, it would not have been thought appropriate to take any further action.

56. Dr Cox's response to Dr Wain's evidence was to agree that risk assessors should always take accident history into account, but that the assessment should not be circumscribed by it. "The whole point of risk assessment is that it should be a thought process that challenges design and seeks to identify and address hazards *before the accident occurs*. It is never good enough to wait for a bigger accident to happen before taking action. Instead, the risk of a more severe accident than any that has already occurred should be evaluated. In this case, a fall from a stationary train could, in unfortunate cases, be fatal. That it has not yet happened in this fleet does not mean that it is not a risk currently". Asked by Mr Lewers whether it was necessary to take into account the frequency of incidents and the severity of the consequences, he said that good risk assessment was not based solely on what had happened in the past. Pressed on whether, where the context was very few relevant incidents against millions of passenger movements, with no serious injury, that context should be taken into account, Dr Cox replied that he was not saying that we should act as if something very unlikely to happen was likely to happen, but that in assessing risk we should not stop short at what has already happened. In his opinion, it would have been safer to have made the relatively minor change to the door close bezel (ie that made in 2016) to have been incorporated into the 2003 upgrade: if that had been done, he felt that the accident to the claimant would not have occurred. Nonetheless, he accepted that the 2003 design change was compliant with rail industry specifications at the time, and was still compliant.

57. I was unconvinced by Dr Cox's conclusions. In 2003, the defendant was working to comply with the requirements of RVAR, which required (inter alia) operability by a flat palm. In 2016, in response to the claimant's accident, the defendant brought in a new design which raised the bezel surrounding the door close button so that the button was recessed within the bezel rather than proud of it. To enable the defendant to adopt that design, it had to obtain a formal permission to derogate from the RVAR

requirements, no doubt because the new design would make it harder to operate the door close button with a flat palm. According to instructions received from the defendant, which were not in dispute, all Mk 4 coaches had been fitted with the modification by 30 November 2016. Yet Dr Cox's catalogue of incidents included four after that date (all in 2018) involving doors closing on passengers, in three of which inadvertent operation was suspected to be the cause. Plainly, it is not possible to say that an earlier incorporation of the 2016 modification would have prevented the accident to the claimant.

Discussion

58. It seems to me that, as Mr Lewers submitted, it is not enough for the claimant to show that the risk assessment was deficient. She must also show that had the risk assessment been properly carried out, it would or should have resulted in a modification to the door controls, which would probably have prevented her accident, and that there was a probability of injury to passengers as a result of the defendant's omissions.

59. I remind myself of the need to avoid setting too high a standard with the help of hindsight. In that context, the words of Laws LJ in *Ahanonu v South East London and Kent Bus Company Ltd* [2008] EWCA Civ 274 are apt:

> "There is sometimes a danger in cases of negligence that the court may evaluate the standard of care owed by the defendant by reference to fine considerations elicited in the leisure of the court room, perhaps with the liberal use of hindsight. The obligation thus constructed can look more like a guarantee of the claimant's safety than a duty to take reasonable care".

60. This does seem to me to be a case where too high a standard is being called for by the claimant. There are a number of factors which lead me to the conclusion that it was reasonable for the defendant to be content with the 2003 design, notwithstanding new data between 2012 and 2015, and not to propose a new design until the claimant had suffered her accident.

61. Firstly, the 2003 modification complied and continues to comply with the required specifications of the rail industry, by which it is still widely used. Its use has not been proscribed by the Rail Safety and Standards Board (RSSB) or by a Rail Industry Code of Practice or Guidance Note. There has been no suggestion by regulators that the 2003 design should be changed. As Dr Cox accepted, the RSSB does "a very fair job".

62. Secondly, the 2003 design was mandated by the requirements of RVAR. It appears that the door close button had to stand proud of its bezel so that a disabled person could press it with the palm of their hand. The design was in use on other fleets with other operators, and there was no evidence of any reports of incidents of injury caused to passengers by its use, such as might have informed the original 2003 risk assessment.

63. Thirdly, the design incorporated other safety measures, which were designed to avoid risk to passengers even if the door close button was intentionally or accidentally pushed by a passenger while others were alighting or disembarking. There was signage, which could hardly have been (and was not) criticised, warning passengers to keep clear of the doors and not to alight while they were closing. There was the bounce strip on the leading edge of the door, which was designed to cause the closing door to stop and open if it encountered an obstruction. And there was the "hustle alarm", which was designed to (and, as I have found did) sound an audible alarm for at least three seconds before the door started closing.

64. Fourthly, none of the accidents involving closing doors during the period 2012-2015 resulted in any injury which was more than slight. Stepping down from a train is an inherently risky operation, and the obvious risk if there is misjudgement or (as in this case) a passenger is caused to lose her balance, is that the passenger will fall perhaps two feet to the platform. But until the claimant's accident, the actual injuries suffered were minor at most, and the number of incidents was tiny compared with the 4.247 million door movements every year on the IC225 trains. Dr Cox accepted it was not necessary to act as if something very unlikely to happen was likely to happen, but insisted that (as must be common ground) risk assessment should not stop short at what has already happened. I accept the validity of that view, but given the other measures put in place to mitigate the risks attendant on accidental or deliberate door closure, given the tiny number of incidents and the lack of serious injury involved, I cannot find that the defendant's decision (as I must infer it to have been) not to alter the design until after the claimant's accident was an unreasonable one.

65. That brings me on to the fifth point, which relates to the 2016 re-design in the wake of the claimant's accident. Dr Cox felt, as I have said, that it would have been safer to have made the relatively minor change to the door close bezel at the time of the 2003 upgrade. In my judgment, that is a distinctly arguable proposition, given the further incidents of apparently inadvertent operation after the modification was fitted; but even if that was right, I cannot find that it would have been reasonable for the defendant, at a time when all rail operators were changing their systems to accommodate the demands of RVAR, to have asked for a derogation from RVAR which would have made it more difficult for disabled people to have operated the door close switch in the very way which, as I understand it, RVAR required.

66. In short, I am unable to find that a reasonable person in the position of the defendant would have contemplated that injury was likely to follow from its decision (as I infer it to have been) not to re-design the door controls until 2016. There would have had to be a sufficient probability of injury to lead a reasonable person in the position of the defendant to anticipate it. In my judgment, there was no such sufficient probability. In short, had the

risk assessment been done differently, or had it been re-assessed as reports of incidents came in (as I am inclined to infer that it would have been), I accept Mr Metcalfe's view that the risk level found would not have mandated any change to the design, and in my judgment that conclusion would have been entirely reasonable. Moreover, I cannot find that the re-design would have prevented the accident, even though it might have made it less likely.

67. I ought to mention that there was some argument about the adequacy of signage and about the value of a vertical handrail which was not fitted to the Mk4 coaches at the time. I was not assisted by that: as for signage, the claimant's expert did not criticise it, in my view rightly, and neither expert was asked to consider whether a vertical handrail would have helped to avoid this accident. I say no more about that.

68. For those reasons, the claim must be dismissed. But the fact that I am driven to dismiss the claim does not prevent me from expressing my profound personal sympathy with Ms Lewington's misfortune, and my hopes that she will, with time, achieve some measure of recovery.

HH Judge Richard Parkes QC
Winchester Guildhall
5 November 2021