

THE HIGH COURT

[2022] IEHC 310

[2018/9183P]

BETWEEN:

FIONA NANGLE

PLAINTIFF

AND

RYANIAR DESIGNATED ACTIVITY COMPANY

DEFENDANT

JUDGMENT of The Hon. Mr. Justice Alexander Owens delivered on the 17th day of May 2022.

1. I wish to draw the attention of practitioners to section 12(1)(c) of the Civil Liability and Courts Act 2004 (the 2004 Act). This provides that: "A defence to a personal injuries action shall specify ...the grounds upon which the defendant claims that he or she is not liable for any injuries suffered by the plaintiff...."
2. The case made by the plaintiff in the personal injuries summons in this action was that she slipped "...on liquid or de-icing fluid then present of (sic) the surface on (sic) the floor of the galley of the said aircraft...."
3. I refer to the grounds on which liability was resisted by the defendant at the trial. Many matters raised in evidence did not feature in the personal injuries defence. The plea that the defendant acted with all reasonable care gives no hint of these grounds of defence.
4. The case in answer to the claim that the plaintiff slipped on de-icing fluid was that that she did not slip on any substance on the floor; she tripped.
5. Evidence was given in attempt to demonstrate that, if the plaintiff did slip, it was unlikely that this was caused by de-icing fluid. Twenty-five litres of glycol based de-icing fluid, mixed with 75 litres of water, were used to de-ice each Ryanair Boeing 737 based at Dublin Airport on the morning of the plaintiff's injury. This was the minimum amount of de-icing fluid which the airline would use. The fluid was not sprayed on surfaces close to the forward cabin door of the aircraft. It was sprayed on the upper and lower surfaces of the wings and on the tails of the aircraft.
6. The aircraft treated included a Ryanair Boeing 737 which was de-iced at the parking stand used by the Boeing 737 crewed by the plaintiff when that aircraft returned from Birmingham Airport. De-icing on the aircraft crewed by the plaintiff started at 04:35 hours. De-icing on the aircraft originally at the stand occupied by her aircraft when it returned from Birmingham Airport started at 05:30 hours. It took about 10 minutes to spray the amount of fluid used that morning on each of these aircraft.
7. Evidence was given, notwithstanding a ruling that it should not be introduced, that Dublin Airport operates a system of cleaning the apron after the de-icing process to remove de-

icing fluid. This was relevant to the likelihood that passengers, aircrew, or ground crew would trek de-icing fluid from the apron into aircraft.

8. Evidence was also given with a view to establishing that if de-icing fluid was trekked in on footwear, it would be unlikely to survive evaporation in the area where the plaintiff fell. Particularly, if it had been trekked into the aircraft prior to its first flight that morning, and that de-icing fluid would be unlikely to survive on the tarmac at the stand where the aircraft was parked prior to departure to Warsaw, even if it had not been fully removed from that location earlier.
9. It was a simple matter to set out the gist of these points in the personal injuries defence. They are grounds on which it was claimed that the defendant was not liable. The plaintiff had a right to due notice of them. The plaintiff's engineer was deprived of an opportunity to consider them in advance of the joint engineering inspection or provide expert opinion on them. This information was also necessary to enable the plaintiff's advisors to formulate a proper request for discovery.
10. The purpose of ss. 10(2)(f) and 12(1)(c) of the 2004 Act is to remove aspects of pleading in personal injuries actions from the general rule that pleadings should not include evidential material. The mischief which these changes are designed to address is obvious. Vague pleadings which fail to identify either "the acts constituting the wrong" alleged or "the grounds" of defence being relied on are no longer permitted.
11. The parties to personal injuries actions are no longer allowed to hold back the substance of their case, improvise, or ascertain from a consultation on the eve of trial or day of trial what the real basis of claim or defence is, without making appropriate amendments to pleadings.
12. There is always a degree of unpredictability in litigation and courts may be prepared to permit a degree of flexibility on this. With the best effort in the world things get missed by litigants when preparing their claim or defence. Relevant matters are often first noticed at a late stage. An over-rigid requirement of adherence to rules and a refusal to permit a party to mend his or her hand may result in unfairness.
13. However, the general rule is clear. It is derived from statute and it represents the settled policy of the law.
14. Those who adopt the course pursued by the defendant in this action should be aware that, even where the point is not raised by a plaintiff, they are on risk that trial judges will not permit evidence where the substance of a ground of claim or defence which that evidence seeks to cover is not included in the personal injuries summons or defence.
15. Another unsatisfactory feature of this trial was that the plaintiff's engineer was only provided with the report of the defendant's engineer on the first day of the trial. Reports were exchanged by the solicitors in February, 2022. One of the purposes of disclosure under the

rules made pursuant to s.45 of the Courts and Court Officers Act 1995 is to enable experts to consider the content of reports by their colleagues and respond appropriately.

16. The plaintiff is a Ryanair cabin supervisor. She got injured on 11 February, 2018 on the 09:35 hours Ryanair flight from Dublin to Warsaw. She fell while walking on the vinyl floor surface in the forward section of the cabin shortly after take-off. She had crewed the same aircraft on a flight from Dublin to Birmingham which departed shortly after 06:30 hours on that morning and on the return flight from Birmingham to Dublin.
17. At the conclusion of the hearing of this action I reached a provisional conclusion that the likely cause of the plaintiff's injury was that a glycol based fluid used to de-ice aircraft was tracked on footwear into the Boeing 737 aircraft in which she was working as cabin supervisor.
18. I have reviewed the transcripts and exhibits. My provisional conclusion remains unaltered. I am marginally more persuaded by the evidence of the plaintiff's engineer on the period over which de-icing fluid is likely to disintegrate to a point where it ceases to be a slipping hazard. The plaintiff's engineer relies on information supplied by the manufacturer of the product in a technical information sheet which sets out its dry-out behaviour. In my view this dry-out behaviour also explains why the plaintiff did not see the cause of her slip when she looked at the floor after her fall. There was no sign of wet on the floor when she looked at it.
19. In coming to my conclusions, I have relied on evidence. As the engineers gave evidence, I have relied on their evidence, rather than on the content of reports, which are not evidence. I have disregarded material provided to me as part of discovery, but not given in evidence. This does not automatically become evidence where it is supplied in a booklet or merely because it is referred to. I have considered the medical reports as these have been agreed. Records were provided relating to the de-icing of Ryanair aircraft at two stands at Dublin Airport on the morning of the plaintiff's injury which are agreed to be accurate. A manufacturer's technical data sheet relating to the product used in de-icing the aircraft was also provided.
20. I accept the plaintiff's evidence that she slipped. Her right foot went from under her on something slippery on the vinyl floor. Her injury occurred just after the aircrew notified the cabin crew that they were free to leave their seats. At that point she got up to go into the galley to attend to some paperwork. She fell after she stepped onto the vinyl floor surface, just beyond the end of the mat at the forward passenger entrance to the cabin.
21. It is unlikely that there was a tripping hazard. There is no suggestion in the evidence that she tripped over either the legs of a passenger in the front row or the legs her fellow employee who was seated to her left, or that she tripped over any object. It is common knowledge that occupants of the front row of passenger seats are not allowed to have objects on the floor at take-off. At take-off the plaintiff and her junior assistant were sitting

on the jump seats beside the forward passenger door opposite the front row of passenger seats.

22. I was not persuaded that the plaintiff's evidence relating to the mechanism of her fall was inconsistent with a slip or that I should pay much attention to a suggested discrepancy between her evidence and what may be recorded in a hospital note, which she disputes as an accurate record of what she said.
23. It is clear that her fall happened quickly and that she found herself on the floor in an instant. She tried to stop herself by grabbing at the edge of the bulkhead separating the aisle from the front galley with her right hand in order to stop her fall. As she fell she somehow managed to give her right arm a heavy bang which resulted in a spiral fracture above the elbow.
24. I also accept the plaintiff's evidence that she has always attributed the cause of her injury to slipping on de-icing fluid. She may have been prompted in this view by assuming that an advisory email from Ryanair to cabin crew concerning the dangers posed by de-icing fluid, which she received on the day after her injury, related to her fall.
25. The plaintiff was responsible for ensuring that this surface was kept clean. I accept her evidence that she checked it prior to when the passengers boarded and that she did not notice anything untoward.
26. Unless there was something slippery on the vinyl floor, there was no reason why the plaintiff should slip on it. When she looked at the surface after her fall she saw nothing which would account for what happened. The evidence establishes that de-icing fluid is practically clear when diluted with water. It is viscous in texture. It dries to a thin greasy film. Her evidence is the sole evidence of the condition of the floor after her fall.
27. There is no reason to suppose that a passenger or other person coming onto the aircraft at any stage prior to its departure for Warsaw trekked in on footwear some other material with similar characteristics to de-icing fluid, which could have resulted in her slip. There is also no reason to suppose that something having similar characteristics to de-icing fluid was dropped on the floor by a passenger or one of the cabin crew on an earlier flight. There was no evidence of any alternative scenario that some substance having the same characteristics as de-icing fluid might have been deposited on the vinyl floor of the cabin.
28. De-icing fluid used on aircraft is glycol-based. It is sprayed on aircraft under pressure in a mix of 75% water to 25% propylene glycol. An operator stands on a "cherry picker" type platform attached to a truck and squirts the mixture at the aircraft using a lance, as shown in a photograph exhibited during the trial. The lance has an adjustable nozzle which can be regulated to widen the spread of spray. The manufacturer's technical data sheet for the product was put in evidence. It states at para. 2.3 with reference to "dry-out behaviour" that: "Fluid dries out to a thin greasy film/fine white powder with the absence of any gums,

thick gel or rough/hard solids. Residues are readily soluble in water, with no residues left after rinsing. No gels, gums, hard or peelable films form when exposed to dry and cold dry air.”

29. So, it is a characteristic of de-icing fluid that it dries out to a thin greasy film at some point. This will be difficult to see. The plaintiff’s engineer expressed a view that it would not be visible. The defendant’s engineer accepted that this film would be difficult to see. Obviously, it would appear as colourless liquid similar to water in its diluted state.
30. The evidence of the plaintiff’s engineer was that de-icing fluid had a slower rate of evaporation than water. While the water element of the mix can evaporate, it will leave behind the residue of propylene glycol and a thin greasy film on the surface. His evidence was influenced by the information provided in the manufacturer’s technical data sheet dealing with “dry-out behaviour”. He did not have any figures for rate of evaporation of glycol in exposed air. The plaintiff’s engineer did not know if the fluid dried out differently on different surfaces and offered the view, based on the chemistry of the substance that it could remain on the airport apron for a number of hours.
31. He did not agree with the conclusions of the defendant’s engineer. He considered it to be more likely that any contamination from de-icing fluid was brought in prior to the departure from Dublin for Warsaw rather than at the time when the aircraft first took off for Birmingham earlier that morning. However, his evidence was that contamination could still have been present from being introduced into the cabin earlier and that it could cause a fall if the plaintiff happened to get her foot onto it. This witness stated that that there was a medium risk of a slip, irrespective of the number of people who traversed the area of floor where the plaintiff fell prior to her fall.
32. On the morning of the plaintiff’s injury passengers boarded and disembarked from the aircraft using front and rear passenger doors. The flight to Warsaw was full. One hundred and eighty three passengers were carried. Assuming full or nearly full flights, this meant that about 90 passengers walked on or close to the surface where the plaintiff slipped as they boarded the first flight from Dublin to Birmingham. About 90 passengers walked on or close to this surface when disembarking at Birmingham. A further 90 passengers walked on or close to this surface when embarking at Birmingham. The same approximate number of passengers walked on or close to this surface when disembarking from the Birmingham Flight into Dublin. About 90 passengers boarded the flight for Warsaw through the front passenger door.
33. The total number passengers passing in the vicinity of where the plaintiff fell, excluding cabin crew and flight crew and ground staff and those passing to and from the front toilet during flights, was in the order of 450. It is impossible to know how many of those who passed through the aircraft at that location stepped on the exact spot where the plaintiff slipped. This depended on where they stepped and whether they cut the corner as they were entering or exiting the aisle when embarking and disembarking.

34. Thomas Leonard of Ryanair, gave evidence of the matters which I have already referred at the outset of this judgment relating to de-icing of Ryanair aircraft at Dublin Airport on the morning of the plaintiff's injury. He also gave evidence that on occasion he observed powder on the apron about an hour after de-icing. Mr Leonard described the fluid as drying so that it is absorbed into the concrete apron. All this witness could say was that on occasion he saw a powder on the ground an hour after de-icing fluid was sprayed at that location. Mr Leonard stated that rain or the cleaning which takes place after de-icing will wash it away.
35. He accepted that de-icing fluid could get inside aircraft if it was not sprayed correctly or if the guidance rope was not where it should be or because staff such as the dispatcher walked it up into the aircraft. This witness could not speak for weather conditions in Birmingham. Whether the aircraft was or was not de-iced at that location is speculation. The plaintiff was not able to state whether this happened. The ramp or apron tended to absorb the substance. He could not comment on how the product would perform on the vinyl surface inside the aircraft.
36. The defendant's engineer was heavily influenced by the evidence of Mr Leonard. Observation of powder after about an hour on the concrete surface of the apron is a rather imprecise measure of rate of degradation of de-icing fluid. All the witness from Ryanair could say was that on occasion he saw a powder on the concrete apron an hour after de-icing fluid was sprayed on aircraft. The defendant's engineer accepted that this related to the performance of the substance on a different surface to that in the interior of the aircraft.
37. His evidence was that it is not known how long the spillage of the substance will stay liquid either on the ground or on the deck of the plane. After research and discussing with the manufacturer there were too many variables to assess that.
38. The defendant's engineer did not think that presence of the material on different surfaces would affect evaporation. It would affect soakage. It would soak into concrete and would remain on vinyl until full evaporation. This witness stated that temperature and windspeed would affect vapour pressure. The witness relied on evidence relating to the temperature and gusty conditions in Dublin. The cold would slow down evaporation. He gave evidence of air temperatures at Dublin Airport that morning. A weather report from Met Éireann was also admitted. The weather was dry in Dublin.
39. When referred to Mr Leonard's estimations, this witness stated that he had no personal experience of handling de-icing fluid. He had experience was of handling anti-freeze for cars which is based on glycol and he could say was that spillages of that substance did not remain for longer than an hour. In his view a spillage of de-icing fluid on the ground at Dublin Airport at 04:45 hours and trekked into the aircraft or de-icing fluid deposited on the ground at 05:30 hours would have evaporated prior to the embarkation of the flight to Warsaw. The witness stated that the temperature in the aircraft would rise to 20 degrees Celsius and that the substance would evaporate much faster at that temperature. The

witness agreed that the manufacturer's technical document gave two alternatives as to how the substance would perform and that the surface that it was on could be a factor in that.

40. My conclusion is that the technical opinion of the plaintiff's engineer relating to the capacity of this product to survive in a slippery residue is more likely to be correct. This relies on the manufacturer's technical information that the product dries to a thin greasy film. The defendant's engineer accepted that because of absorption, the rate at which degradation of the product due to temperature and air flow will take place will be different on different surfaces.
41. The location of the surface where the plaintiff slipped was somewhere in a space of 225 millimetres (about 9 inches) in width between a bulkhead separating the central aisle of the aircraft from the forward galley and the edge of a mat which runs from the front entrance door towards the bulkhead.
42. The evidence shows that air carriers recognise that the presence of de-icing fluid trekked by footwear onto the vinyl parts of the cabin floors of commercial aircraft is a recognised slipping hazard. Three reported instances of slips leading to cabin crew injury attributed to this hazard on vinyl flooring were documented by the defendant in the period between 17 December 2017 and 9 January 2018. These reports led to an advisory email issued by Meghan Doyle, Ryanair's inflight safety officer, to cabin crew on 12 February 2018 advising that: "Due to winter operations and de-icing passengers and crew may walk de-icing fluid into the cabin. Crew should remain vigilant to this at all times."
43. These advisory emails are flagged to cabin crew at the start of each shift, when they log into the portal. They are reminded to take the necessary precautions. The advisory notices relating to de-icing fluid are seasonal and are not left on the system permanently. Meghan Doyle gave evidence that in previous winters notices issued by Ryanair to cabin crew on the portal flagged this potential hazard.
44. The vinyl surfaces in the areas of the cabin doors, galleys and toilets of the Boeing 737 aircraft provide good slip resistance, even when liquid is spilled on them. However, de-icing fluid causes the slip resistance to diminish significantly and poses a significant slipping hazard. It is also difficult to see this fluid when it has dried out to the point when it forms a thin greasy film. When it is wet it looks like water. Water does not present a slipping hazard on the vinyl floor.
45. Precautions external to the aircraft include measures such as roping off wing areas of aircraft where fluid is likely to drip down onto the tarmac and activity of airport operators to remove de-icing fluid residue from the apron and not squirting it in the area of passenger doors or steps. It is common knowledge that passengers boarding aircraft by means of the steps to the rear passenger door are not allowed to walk under the wings.

46. I have taken into account the evidence introduced by the defendant that Dublin Airport authorities engage in a clean-up after de-icing of aircraft. On reflection, I have decided to treat this evidence as admissible. It is reasonable to infer that other airports operate similar procedures, either to deal with a slipping hazard on the apron, or because residue of de-icing fluid is a potential environmental hazard.
47. Notwithstanding these steps, de-icing fluid is occasionally trekked into the cabin on the footwear of ground crew, air crew and passengers. These persons include the dispatcher and the member of the flight crew who inspects the exterior of the aircraft prior to any flight. Thomas Leonard of Ryanair acknowledged in his evidence that this can happen as a result of spraying of de-icing fluid in the wrong area or failure to rope off wing areas.
48. It is clear from the evidence that even where precautions are taken aimed at ensuring that persons walking on the apron do not come in contact with de-icing fluid, these may not always be enough to prevent the trekking of this substance into the cabins of aircraft. There is a recognised risk that de-icing fluid will be trekked into aircraft on footwear. It is also clear that mats at the doorways of the aircraft and the surfaces of steps leading to the aircraft from the apron do not provide full protection against this risk.
49. While it is more likely that this would happen through the passenger door at the rear of the aircraft, particularly where de-icing is confined to the upper and lower main and rear wings and fuselage and tail, as happened in this case, the evidence is sufficient to establish that there is also a real risk that persons entering via the front steps of the aircraft may introduce this material into the cabin. Once there, it may remain on the vinyl floor surface in the form of thin film which is difficult to see.
50. I have concluded that the likely cause of the plaintiff's slip was de-icing fluid residue on the vinyl floor of the aircraft cabin.
51. This trekking in of de-icing fluid or its residue into the cabin on footwear could happen either in the airport from which an aircraft departs at the beginning of daily operations or at another airport, if another aircraft has been de-iced at the location where the aircraft parks. It could happen as a result of aircrew or ground crew or passengers with de-icing fluid on their footwear entering the cabin through either passenger door.
52. The result of my findings is that the plaintiff has established that the defendant failed to ensure, so far as is reasonably practicable, her safety at her place of work. The defendant failed to give due warning to cabin crew of the danger that de-icing fluid trekked into the aircraft could cause a slipping hazard on the vinyl floor surfaces within the cabin.
53. Unfortunately, the warning to cabin crew for the winter season of 2017 to 2018 to keep an eye out for this hazard was not given until the day after the plaintiff was injured. This related to a known hazard which was the subject of advisories to cabin crew during previous

winters. I agree with the comment of the plaintiff's engineer that she should have been told to keep an eye out for this after the passengers had boarded.

54. If such a warning had been issued earlier, the plaintiff would have been reminded of this hazard. She would have checked for it as she was the cabin supervisor responsible for the front section of the aircraft. In my view such a warning would have been sufficient to discharge the duty of the defendant to ensure, so far as is reasonably practicable, the safety of the plaintiff in relation to this hazard.
55. I do not accept that the defendant was negligent in not ensuring that the mat leading from the front passenger door of the aircraft extended to the bulkhead. If I were to take this view, it would follow that all vinyl floor surfaces in the toilet, galley and entrance areas of aircraft should be covered by mats because of a risk that a fall of liquid with unusual features would make them slippery. That step would go well beyond what is reasonably practicable.
56. I would require very strong evidence that other operators of airlines were impelled to implement such a drastic solution for safety reasons before I could accept that such a course ought to have been adopted by the defendant. The reason why these areas have vinyl floors is obvious. These vinyl floors have good slip resistance and are in areas where liquid may be on the floor. Any suggestion that they should be carpeted or covered with more mats is impractical.
57. I refer to complaints that the Ryanair safety statement and risk assessments not identify the particular risk posed by de-icing fluid within aircraft cabins. Nothing directly arises out of this. This hazard was known and had been addressed in previous years.
58. I do not agree the submission on behalf of the defendant that the plaintiff as cabin supervisor on the aircraft should have known about the hazards arising from de-icing fluid and that she was in some way the author of her own misfortune or negligent herself in failing to keep an eye out for this hazard. The existence of warnings about this hazard in previous winters did not emerge until the evidence given by the defendant's inflight safety manager. The plaintiff was not cross examined on this. The defendant had an obligation to remind cabin crew of this seasonal potential hazard.
59. As a result of the plaintiff's fall the aircraft returned to Dublin Airport. She was taken to Beaumont Hospital where she remained for a number of days. X-rays established that she suffered from a spiral fracture to the right humerus. This required an operation for open reduction and fixation.
60. She also suffered a right radial nerve injury which involved her being incapacitated for a number of months. She was obliged to do exercises in order to improve recovery to this nerve. The injury initially caused wrist drop, in keeping with radial nerve palsy, and sensory disturbance in the areas governed by this nerve. This manifested itself in loss of sensation

and function. Feeling gradually came back from the top of her forearm down her arm and into her hand over a period of about eight months.

61. She has been left with a residual feeling of numbness on parts of the back of her right hand. She has normal function of that hand now and a normal range of movement of the elbow. She is right handed.
62. She was affected in dealing with her children and other domestic affairs for a number of months as a result of her injuries. Her parents and in-laws and her husband had to step in to assist her in many asks during this period and her family life was disrupted. She was unable to drive for a number of months. She developed stiffness in the right shoulder from lack of use of her arm. This required treatment in the form of exercises recommended by a physiotherapist. She has recovered from this. She has been left with a nasty looking scar which runs from her elbow to her shoulder. This is a permanent disfigurement.
63. I am required to have regard to the 2016 revision of the "Book of Quantum" prepared in accordance with the Personal Injuries Assessment Act 2003 when assessing general damages. This guidance does not mention scarring as a result of operations. The guidance refers to nerve palsy as being a potential complication of a fracture of the humerus. I have factored in the significant scar on the plaintiff's arm and her residual loss of sensation in her right hand. Her injury involved a complex fracture which required significant medical intervention.
64. The amount which I am awarding for general damages is €70,000. The agreed special damages are €14,790. The total award is €84,790.