THE HIGH COURT

ADMIRALTY

[2019 No. 3711 P.]

THE M.V. ARKLOW VALOUR

BETWEEN

ARKLOW SHIPPING UNLIMITED COMPANY, ARKLOW SHIPPING NEDERLAND B.V. and AVOCA SHIPPING B.V.

PLAINTIFFS

AND

DROGHEDA PORT COMPANY DAC

DEFENDANT

JUDGMENT of Mr. Justice Denis McDonald delivered on 17th September, 2021

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Introduction

1. On 13th December, 2018, the M.V. *"Arklow Valour"* ("*the vessel*") grounded on a sandbar at the mouth of the River Boyne. Earlier that day, the vessel had loaded a cargo of cement at Tom Roes Point Terminal ("*the terminal*") which is located some distance upriver from the site of the grounding. Both the terminal and the sandbar where the grounding occurred are within the limits of the harbour managed and controlled by the defendant, the Drogheda Port Company DAC ("*the port company*"). The vessel suffered damage as a consequence of the grounding and the plaintiffs have claimed in these proceedings that the port company is liable for the damage caused. The claim made by the plaintiffs is advanced on a number of different legal bases. In

making their case, the plaintiffs have placed significant reliance on advice which they allege was given by the Harbour Master of Drogheda Port on 12th December, 2018 as to the maximum sailing draught of the vessel for the purposes of departure from Drogheda Port on the afternoon tide on the following day. The port company strongly contests the claims made by the plaintiffs and disputes that any such advice was given by the Harbour Master. On the contrary, the port company maintains that the appropriate draught of the vessel was, at all times, a matter for the master of the vessel, Captain Anton Traktatov, who the port company submits must bear ultimate responsibility for the safe navigation of the vessel. The port company has also denied that the plaintiffs have established their respective title to sue in respect of the losses claimed in the statement of claim. In particular, the port company submits that neither the first nor second plaintiff have established any proprietary interest in the vessel or even a basis for the use of the vessel and that, accordingly, any loss they may have suffered is not recoverable.

2. Whatever may be the position in relation to the first and second plaintiffs, there can be no doubt but that the third named plaintiff has title to sue. The third named plaintiff (which is a private company organised and existing under the law of the Netherlands) has title to sue given that it has at all material times been the registered owner of the vessel and is, therefore, entitled to maintain a claim insofar as the vessel suffered damage. In circumstances where it was agreed that the question of damages would be postponed to a separate hearing, I do not propose, in this judgment, to address the position of the first and second named plaintiffs. This judgment is concerned with whether or not there is a legal and factual basis for any claim in respect of the grounding of the vessel against the port company. For the purpose of the determination of that issue, it is not necessary to consider whether the first and

second named plaintiffs have a claim in relation to the grounding. Their position can be considered if and when a finding is made that the port company has a liability in respect of the grounding.

3. In addition to the dispute as to the title of the plaintiffs to sue, there are also significant factual disputes between the parties as to what occurred both on 13th December, 2018 and in the two-day period prior to that date. In light of the significant conflict of evidence, I believe it makes sense to first provide a brief outline of certain uncontroversial facts and next consider whether there is any legal basis on which to hold a port company established under the Harbours Act, 1996 ("*the 1996 Act*") liable for damage done to a vessel as a consequence of a grounding within the outer limits of a harbour. If I conclude that there is some legal basis for such a claim, I will then examine the evidence in more detail and make the necessary findings of fact with a view to determining whether, on the basis of those facts, the port company has any legal liability in respect of the damage done to the vessel.

The vessel

4. The vessel is a cargo ship registered in Rotterdam, flying the flag of the Netherlands. The tonnage of the vessel (which was built in 2017) is 2,999 tonnes (gross) and 1,731 tonnes (net). The length of the vessel between the perpendiculars is 84.98 metres while the breadth is 15 metres. The vessel has a summer draught of 6.362 metres and a winter draught of 6.23 metres. The freshwater allowance (while the vessel sits in freshwater) is 140 millimetres. The vessel is powered by a MaK 6M25 engine and the main engine power is 1,740kW.

5. At the time of the grounding, the vessel was chartered to CRH plc under a GENCON charter dated 22nd December, 2017 under which the vessel was made

available to CRH to transport cargoes of cement up to a total of 120,000 metric tonnes (plus or minus 10%) to be shipped in individual shipments of 4,000/5,000 metric tonnes from either the ports of Drogheda or Greenore in County Louth to Northfleet in the Thames Estuary. Such shipments were within the normal capacity of the vessel which has a single hold (although fitted with two portable bulkheads for segregation of cargoes when required).

6. On 7th December, 2018, Captain Traktatov, the master of the vessel, was notified by email by one of the companies within the Arklow Shipping Group that he was to take the vessel to Drogheda to load cement on behalf of CRH and carry it to Northfleet. The email stated that the loading berth was considered to be a NAABSA (not always afloat but safely aground) berth. The email stated that:-

> *"As you are aware your vessel is strengthened to LOAD aground. Prior to fixing we have checked the suitability of the berth for your vessel and are satisfied that the berth is acceptable."*

The email stated that the cargo was to be loaded in bulk *"Always up to max permissible departure draught Drogheda"*. On the second page of the email, it was also stated, with regard to *"intake"* that the master was to:-

> *"Take as much as possible. Take into account the max departure draught from Drogheda. Tides are attached."*

7. On foot of this instruction, Captain Traktatov sailed from Garston, east of Liverpool on the Mersey, to Drogheda on 10th December, 2019, arriving at the pilot station near the mouth of the River Boyne on the morning of 11th December, 2019. There is compulsory pilotage for vessels of this size in Drogheda Port. The port company stresses that, under s. 63 of the 1996 Act, the fact that a vessel is under

compulsory pilotage does not affect the responsibility of the owner or master for any loss or damage caused by the ship or by the manner in which the ship is navigated.

8. Later on the same day, the vessel berthed at the terminal. According to Mr. Fergal McGuinness, the managing director of KC Shipping (based at the terminal), the vessel was *"all fast at the berth at 12.45 hours"*. It should be noted that KC Shipping acted as agent both for the Arklow Shipping Group and for CRH at the port of Drogheda. Prior to departure of the vessel from Garston, Mr. McGuinness had emailed representatives of both the Arklow Shipping Group and CRH on 10th December, 2018 in the following terms:-

> *"Vessel is currently in Garston discharging a cargo of Fertiliser. The Master expects to complete operations and sail for Drogheda tonight at 01.00 11/12, giving an EDA of 11:00 11/12… Vessel will come in on the Tuesday PM tide at 13:43 11/12 and berth in GRP. We will commence loading a Cement cargo on arrival and expect operations to take 30 hours, therefore allowing for adequate settling time, vessel will sail on the Thursday PM tide at 15:03 13/12…*
>
> *The Thursday PM tide at 15:03 13/12 has a prediction of 6.84 metres, allowing a maximum sailing draught of 6.54 metres, saltwater, even keel, giving a cargo of approx. 4,800MD."*

9. The difference between the tide prediction of 6.84 metres mentioned by Mr. McGuinness and the *"maximum sailing draught"* of 6.54 metres should be noted (albeit that, as explained at a later point in this judgment, the latter figure could never have constituted a safe sailing draught for the vessel). The difference amounts to 30cm which is the minimum under-keel clearance that the port company would

recommend for a vessel of up to 100 metres in length. This was confirmed in the evidence of Captain Martin Donnelly, the Harbour Master, on Day 4 of the hearing at Qs 589 and 590 of the transcript. The depth of the water available in Drogheda Port is a critical feature of the present case and it is, therefore, necessary, at this point, to describe some relevant features of the port.

Drogheda Port

10. Drogheda Port lies on the River Boyne. It is a tidal river port. As described by Captain Donnelly, the River Boyne flows out into the Irish Sea on a shallow shoaling broad horseshoe bay with sandy beaches running both north and south from the mouth of the river. The sea bottom is also sand. At the river mouth, there are two breakwaters of almost equal length (approximately 500 metres), one to the north and one to the south. The outermost point of the northern breakwater is marked with a stone beacon known as the Aleria beacon. The outermost point of the southern breakwater is marked with the metal Lyons light. Thereafter, to the town of Drogheda, the navigation channel is marked and lit by individual and paired fixed beacons over its length. There are 40 beacons or lights in total. The Port Approach light is of particular importance. It is positioned approximately 420 metres west of the end of the southern breakwater. This aid provides a high intensity light divided into five coloured sectors of fixed red/mixed white and red/fixed white/mixed white and green and fixed green. The white colour sector positions a vessel in the centre of the shipping channel. The channel is maintained by dredging over its dimensions of 100 metres in width and 700 metres in length from a point east of the two breakwater ends. According to the Admiralty Sailing Directions (UK Hydrographic Office-Irish Coast Pilot, 20th Edition, 2016) at p. 91, the commercial port lies about four-and-a-

half miles up the River Boyne. The port is divided between what is described as the deep water facilities at the terminal and the inner and shallower town quays at Drogheda, one mile further upstream. The Admiralty Sailing Directions contain a note of caution warning that maintained depths in the entrance to Drogheda are liable to change due to bad weather. This refers to the sandbar located near the entrance to the channel. Following changes made to the port approach channel in 1999 and 2000, the port approach channel was reconfigured to its current alignment (which is perpendicular to the coast). Thus, at the time of the incident, the subject matter of these proceedings, the port company had, in the words of Captain Donnelly, accumulated approximately eighteen years' knowledge of how the entrance channel behaves and how silting occurs as a result of weather events and through natural accretion. Captain Donnelly explained that the longshore drift and migration of sand from south to north is in the order of 120,000 cubic metres per annum. Over the year, as part of the twice daily tidal cycle, spring and neap tides, some of this mobile sediment is deposited into the entrance channel which is at a greater depth than the shallow inshore coastal gradient immediately outside of the breakwater. Captain Donnelly also explained that deposition of silt into the entrance channel is accelerated during southeast to northeast winds, spring tides and as a consequence of storm events. In addition, Captain Donnelly said that it is common, when the wind is blowing from a northerly direction with high barometric pressure, that the recorded depth of water will be less than that predicted in the tide tables (discussed below). The expression used is *"tide not making prediction"* or *"tides cutting"* or that *"the tide cut"*. This is reflected in the Notice to Mariners (No. 1 of 2018) issued by the port company in January, 2018 in which it was stated that:-

> *"Masters are reminded that tidal predictions for any given tide may be affected by weather conditions, particularly high barometric pressure or a combination of wind and barometric pressure i.e., southerly winds and low barometric pressure may increased* (sic) *the tidal level above prediction, while northerly winds and high barometric pressure may reduce the tidal level below prediction. Storm events may also affect predicted depths."*(Underlining in original.)

In a further notice (No. 3 of 2018), the port company advised masters of the need to familiarise themselves with the navigational features of the port and the Boyne estuary and identified (*inter alia*) the Admiralty Sailing Directions as one of the primary sources of information about the port.

11. It is the policy of the port to maintain the depth of water at 2.2 metres *chart datum* ("*CD*"). Tidal levels are thus given as a height above CD (which is approximately the lowest level of water encountered on the lowest astronomical tide excluding meteorological effects). In order to maintain this depth within the shipping channel, the port company organises periodic dredging of the channels. The two main maintenance dredging campaigns are in the first and fourth quarters of the year. There are also summer campaigns using a smaller dredger. According to Captain Donnelly, the port company constantly monitors the depth of the channel. The frequency of monitoring is increased with wind and storm events. The monitoring happens in three different ways:-

(a) In the first place, the pilot boats owned by the port company (used for the provision of pilotage services) have on board an echo sounder which displays the depth both in numeric and visual format. They can

therefore gather some basic evidence as to the depth as they perform their pilotage functions;

(b) Captain Donnelly also gave evidence that he regularly asked the pilot boat to *"run the lights"* meaning that the pilot boat maintains a course along the channel indicated by the leading light and the crew record the depths initially along that central channel line (namely the white sector described above) then moving off the leading light to the channel toe boundary. Captain Donnelly stressed that the *"running the lights"* method is only an approximate means of ascertaining channel depths. Nonetheless, it is a cost effective and fast method which provides an indication of a loss of depth in the channel. He explained that any such indications may prompt a more detailed survey. It should be noted, however, that there was some controversy between the parties as to whether such a survey could realistically be carried out under certain weather or sea conditions. This is an issue which is addressed further at a later point in this judgment; and

(c) Thirdly, the port company has a mobile hydrographical Ceeducer unit which carries a transducer instrument which allows a bathymetric survey to be undertaken measuring both the depth and the contour of the sea bottom below. There is a GPS aerial permanently fixed to the hull and wheelhouse roof of the *"Boyne Haveloc"* pilot boat. Captain Donnelly personally undertakes the Ceeducer surveys at frequent intervals throughout the year, the interval frequency shortening with bad weather and also where a depth reduction has been indicated or determined through one of the less formal methods described above.

Such a survey is usually undertaken from three hours before high water to one hour after high water. The electronic data collected is subsequently analysed by Hydrographic Surveys Ltd ("*HSL*") in Cork. After analysis of the data by HSL, it is plotted onto a chart and the chart is then emailed back to Captain Donnelly in PDF form.

The Ceeducer survey of 10th December, 2018

12. Captain Donnelly undertook a Ceeducer survey on the morning of 10th December, 2018. The data collected was emailed to HSL at 12:53 on that day. According to his witness statement, the results of that survey (which was provided by HSL in the form of a chart) showed that there had been some loss of depth which varied from place to place. On the southern side of the channel at the bar, the loss of depth was 0.30 metres. The loss of depth on the northern side of the channel was greater. The loss of depth was sufficiently significant that Captain Donnelly telephoned the dredging company retained by the port company, namely Boskalis, to inform it that there had been a loss of depth which would require another dredging campaign. At 18:24 on the same day, Captain Donnelly emailed the pilots in the port with a copy of the HSL chart and informed them that there had been *"some depth loss on Green sector immediately outside the b' waters"*. The email did not identify the extent of the loss of depth but the pilots were clearly capable of reading the attached chart which displayed the results of the survey.

The conversation between Captain Donnelly and Mr. McGuinness

13. Captain Donnelly also spoke to Mr. McGuinness. As discussed in more detail below, there is a difference between Captain Donnelly and Mr. McGuinness as to when any such conversation took place. Captain Donnelly says that, on 10th December, as part of a wider conversation with Mr. McGuinness, he recalls saying that there was a depth loss of circa 30cm at the entrance. The reference to *"the entrance"* appears to relate to the sandbar described above. According to Mr. McGuinness, this conversation took place on the afternoon of 12th December. There is no dispute between Captain Donnelly and Mr. McGuinness that a further conversation took place later on the evening of 12th December. Captain Donnelly explained that, on that day, he was travelling by car to Limerick for a port forum meeting scheduled to take place on the following day. He recalled that, while driving to Limerick, it was raining heavily and he heard the Met Éireann weather forecast on RTÉ radio. It was forecasting strong south-easterly winds for the Irish Sea that evening and night. He pulled in and checked the XC weather app on his mobile telephone. In his witness statement, he said:-

> *"74. ...Knowing that the depth of the channel was already reduced, and given the forecast, I considered that there was a risk of a further loss of depth and that a further allowance of 20cm would be appropriate. I knew that the "Arklow Valour" was loading and due to sail on Thursday 13th on the Pm tide.*
>
> *75. I phoned Mr. Fergal McGuinness and said that, based on the ... weather forecast, they should allow another 20cm. Mr. McGuinness*

said that this would leave the vessel at 6m… I did not, and would not, have confirmed that a draught of 6m was safe for the vessel to sail…"

14. It should be noted that Mr. McGuinness (who, somewhat unusually, delivered a witness statement on behalf of the plaintiffs after the witness statements had been delivered on behalf of the port company) says that the conversation went further than this. He says that Captain Donnelly went so far as to *"cut the maximum sailing draught of the vessel to 6 metres saltwater, even keel"*. According to Mr. McGuinness, the Harbour Master is the person who determines the maximum sailing draughts of all vessels leaving the port of Drogheda and that he communicates this to agents. This is vehemently denied by Captain Donnelly. It will, therefore, be necessary, at a later point in this judgment, to make findings based on the evidence which I heard in relation to this issue. It is sufficient, for the moment, to note that, at the very least, a conversation took place on the evening of 12th December during which the Harbour Master indicated that he believed that, based on the forecast, there could be a further reduction of depth at the bar of 0.20 metres on top of the 0.30 metres loss recorded in the Ceeducer survey. Taken with the results of the Ceeducer survey of 10th December, 2018, this suggested a total depth reduction of 0.5 metres at the bar.

The day of departure of the vessel from the port

15. On the morning of the following day, 13th December, 2018, Mr. McGuinness emailed representatives of Arklow Shipping, CRH and the vessel itself at 10:11 stating:

"Vessel completed loading Cement cargo of 4,478 Mt at 02:50:50 13/12. Pilot is booked on board at 14:00 13/12 and vessel will sail on the Thursday PM

tide at 15:03 13/12 WP. … due to severe SE winds during the night and the potential impact on the Bar outside, ***the Harbour Master cut the maximum sailing draught to six metres, saltwater, even keel****."* (emphasis added)

16. In addition, on the same day Ms. Maeve McGuinness, a director of KC Shipping Ltd and Captain Traktatov signed a statement of facts prepared by KC Shipping which recorded the time when loading of the vessel was completed and gave the next available tide as 15:03 that afternoon. Under the heading of "*General Remarks",* it was stated, in similar terms to the email quoted above, that the Harbour Master had "*cut the maximum sailing draught to six metres, saltwater, even keel".*

17. Following loading of the vessel, the evidence of Captain Traktatov was that the draught of the vessel at the terminal was 5.980 metres forward and 6.0 metres aft. These figures are recorded in a document described as the *"draft survey"* which refers to the draught of the vessel. Although there is some dispute about the nature of the water at the terminal, the evidence on the plaintiff's side was that the draught was taken in *"brackish"* water which is a mix of salt and fresh water. As noted above, the vessel had a freshwater allowance of 14 cm. The *"draft survey"* records the density measurement on 13th December, 2018 as 1.006kg/m3. As I understand it, the density of freshwater is 1.00 whereas the density of seawater will usually be in excess of 1.020. In his evidence on Day 6, Captain McJury used a density of 1.025. For a vessel moving from brackish water out to sea, it would be necessary to make a calculation as to what the draught of the vessel would be when it reaches saltwater. Because of the relatively higher density of saltwater, the vessel should be more buoyant in the water and the draught should accordingly be less in saltwater than in freshwater or in brackish water. Captain Brian McJury, the independent expert called on behalf of the port company accepted on Day 6 (at Q. 304) that, based on the figures given in the

"draft survey", there would be a 0.11 metre reduction in the draught of the vessel in saltwater. On the basis of a maximum draught of 6 metres recorded at the terminal, this would accordingly reduce to 5.89 metres in saltwater. The significance of this figure is that, having regard to the Drogheda Tide tables, there was an expected depth of 6.84 metres at the bar at high tide on 13th December, 2018. Given the views expressed by Captain Donnelly, the Harbour Master, that a loss of depth of 0.5 metres could be expected, this meant that there was an expectation that there would be a depth of water of 6.34 metres on the southern side of the channel at the bar. On the basis that the vessel had a draught of 6 metres, this would produce an under keel clearance of 0.34 metres. However, allowing for the further 11cm (and on the assumption that there was salt water at the bar) this would, on the plaintiffs' case, have given the vessel a total under keel clearance of 0.45 metres.

18. It will be necessary to return to the expected depth of the water at the bar at a later point in this judgment. As it happened, the high tide on the afternoon of 13th December, 2018 did not reach predicted level. According to a letter from the Harbour Master to the port company's solicitors of 22nd March, 2021, the data from the automatic tidal gauge for 13th December, 2018 recorded a maximum tidal height of 4.53 metres between 15:27 and 15:37 on that day. In his evidence, Captain Donnelly explained that the automatic tidal gauge is located immediately outside the port office approximately 5.5 kilometres upriver from the entrance to the harbour. It is located on the southern side of the port directly across the river from the terminal. This converts to a CD corrected depth of 6.73 metres which was 0.11 metres below the 6.84 metre tide predicted in the Drogheda Tide Tables for the terminal on that day at 15:03. As described below, the vessel grounded at 14:30 on 13th December. The automatic tidal gauge recorded a tide of 4.34 metres at 14:27 on that day and 4.40 metres at 14:37 on

that day. When the 2.2 CD figure is added, the relevant depth ranges from 6.54 metres to 6.60 metres. On the assumption (a) that the water at the bar was saltwater (b) that there was a similar loss of depth of the tide at the bar and (c) that the available clearance was not adversely affected by the squat of the vessel or by heeling, the vessel should still have had an under keel clearance of 0.15 to 0. 20 metres even allowing for the overall loss of depth of 0.5 metres predicted by Captain Donnelly. This, of course, pre-supposes that Captain Donnelly's prediction was accurate. Only the first 0.30 metres of that prediction was based on actual measurements taken during the Ceeducer survey. It also presupposes that the prediction that the vessel would be in salt water by the time the bar was crossed such as to reduce the draught to 5.89 metres.

19. Before leaving the port, the vessel was boarded by Captain Andrew Breach, one of the pilots licensed by the port company to operate at Drogheda Port in order to provide the necessary pilotage services to the vessel. According to his witness statement, Captain Breach went through the checklist with Captain Traktatov and the checklist showed that the vessel had calculated a draught of 6 metres even keel. Captain Breach also gave evidence that, after boarding the vessel, he checked the gauge (which counsel for the port company suggest is a reference to the tidal gauge at the terminal) and he made an estimation that there was sufficient under-keel clearance.

20. There is a dispute between Captain Traktatov and Captain Breach as to whether the latter told Captain Traktatov, prior to the departure of the vessel from the terminal, that, depending on conditions, he might have to disembark from the vessel onto the pilot boat before the vessel passed beyond the breakwaters and over the bar. Before making a definite decision as to whether to disembark early, Captain Breach

said that he called a colleague on the pilot boat and asked him about conditions and as to whether it would be safe to disembark after the bar. His evidence was that conditions were not suitable. He explained that the pilot boat had only one engine. This makes it less manoeuvrable and Captain Breach suggested that this made it unsafe for him to attempt to disembark beyond the bar.

21. Captain Breach also explained that it was intended that the vessel should pass the breakwaters and over the bar at approximately 30 minutes before high tide which he believed would occur at 15:03. He explained that this is standard practice in the port when a vessel of this kind is laden. It is considered safer to proceed immediately before high water on a rising tide.

22. According to Captain Breach, as the vessel made its way down the river towards the sea, he estimated that the wind was somewhere between Force 5 and Force 6 on the Beaufort scale. For completeness, it should be noted that Force 5 is described as a "*fresh breeze*" where the wind is between 19 and 24 miles per hour (or 17 to 21 knots). In terms of sea conditions, this would give rise to moderate waves, many white caps and some spray. Insofar as Force 6 is concerned, this is described on the Beaufort scale as a *"strong breeze"* between 25 to 31 miles per hour (at 22 to 27 knots). Sea conditions would include the formation of larger waves with white caps everywhere and more spray.

<u>The grounding of the vessel</u>

23. Captain Breach disembarked from the vessel at 14:27 at the Tower Navigation beacon inside the breakwaters. However, he continued to advise the master over the VHF radio from the pilot boat. According to him, at 14:30, immediately east of the breakwater, the vessel came to a sudden stop and appeared to him to have gone

aground amidships. According to Captain Traktatov, he stuck to the instructions given to him by Captain Breach prior to leaving the port to remain at 4/5 knot speed and to continue on a line slightly south of the centre line. The plaintiffs contend that the evidence shows that the vessel decelerated very significantly following the grounding. They submit that Captain Breach's evidence that it came to a sudden stop supports this. The plaintiffs also contend that the loss of depth must have been significantly more than had been advised by the Harbour Master and they make the case that there is compelling evidence that the Harbour Master underestimated the loss of depth. They refer, in this context, to the results of a survey undertaken on 16th December, 2018 which showed the depth of water at the bar had decreased to as little as 1.25 to 1.50 metres at CD and that there was further area east extending over the southern half of the approach channel which was as shallow as 0.75 metres at CD. However, the port company suggests that the results of the 16th December survey are likely to have been significantly affected by the weather conditions in the intervening period and also by the use of tugboats employed, in the aftermath of the grounding, to refloat the vessel. They suggest that there is likely to have been a significant churning of the bottom. The plaintiffs also suggest that the Harbour Master should have been aware that, over the course of the previous two days, the tide had failed to make prediction. For example, the Drogheda Tide Tables predicted a tide of 6.82 metres at the terminal 1:31 on 11th December whereas the automatic gauge shows that the tide (when adjusted to reflect 2.2 metres CD) reached 6.73 metres at 1:27 on that day and 6.74 metres at 1:37. That reflects a reduction of between 8 cm and 11 cm. However, the port company has highlighted that the failure to make prediction occurred at the automatic tidal gauge which is located 5.5 kilometres up river and the port company suggests that there is no clear evidence as to the relationship between heights at that

gauge and at the bar. The port company has also stressed that, having regard to the presence of south easterly winds, it would have been expected that the tide should have exceeded prediction. The port company refers, in this context, to the evidence of Captain Donnelly that, while the winds on 11th December were light south-easterly, they were very strong south easterly on the night of 12th December and the port company highlights that the Admiralty Sailing Directions (described in para. 10 above) suggest, at p. 91, that southerly winds generally raise the level of the tide. There is similar information contained in the Notice to Mariners (No. 1 of 2018), the port company's Pilotage Standard Operating Procedures at para. 6.3 and in the *"Cautionary Note"* on the first page of the Drogheda Tide Tables. The port company also emphasises that the tide was a local variable on which the Master should have sought guidance from "*his local navigational expert"* namely the pilot. It is also contended there is no evidence that Captain Tractatov gave any consideration to the tide or consulted the pilot in respect of the tide. In this context, the port company draws attention to the fact that there is a visual tidal gauge at the terminal which allows ships masters and the pilots to obtain information in real time as to the state of the tide and in particular, as to whether the tide was making the level predicted. Thus, the *"cut"* in the tide shown on the gauge on 13th December was information which was readily available to any mariner about to sail on the afternoon tide on that day. It was not information that was solely available to the port company. There is also a further visual gauge closer to the bar.

The re-floating of the vessel

24. There is also some controversy between the parties in relation to the re-floating of the vessel following its grounding. At this point, it is sufficient to note that,

ultimately, the vessel was successfully re-floated with the assistance of two tug boats namely the *"Mourne Venture"* from Carlingford Lough and the *"Masterman"* from Belfast. An Arklow Shipping marine superintendent, Captain John Conlon, also assisted in the re-floating of the vessel which was successfully completed on 14th December, 2018 at 16.30. The vessel then proceeded to Dublin Port and was subsequently repaired at Swansea Dry-Dock.

25. The issues in controversy in relation to the grounding were significantly narrowed on the first day of the hearing when an application was made by counsel for the plaintiffs to exclude certain of the evidence proposed to be called on behalf of the port company – in particular certain of the evidence to be given by Captain McJury and also the evidence to be given by Mr. Allan Stewart, a naval architect and marine consultant. The evidence related to the steps which the port company suggested should have been taken by the plaintiffs in attempting to re-float the vessel. I heard submissions from both sides on the first day of the hearing and made a ruling on that day that, having regard to the terms of the amended defence and the port company's responses to the plaintiffs' request for particulars, the evidence to be called by the port company would have to be confined to what was pleaded namely an alleged failure in the course of re-floating the vessel in terms of de-ballasting, deployment of anchors, use of the main engines and bow thrusters to avoid the vessel grounding outside the navigable channel, to review the depths on grounding and to identify the correct moment of tide and path. I did not make any ruling at that stage as to which elements of the reports of Mr. Stewart and Captain McJury could be pursued and I directed that the parties should confer with each other to determine which elements of the respective reports could properly be put forward by the port company within the four corners of what was pleaded on its behalf. It should be noted that, subsequently, the

port company did not call Mr. Stewart as a witness. The port company also did not pursue many of the allegations made in relation to the manner in which the plaintiffs sought to re-float the vessel.

The applicable legal principles

26. Having outlined the events in issue in broad terms, it seems to me to be important, at this stage, to identify the relevant legal principles which apply to a case of this kind. The plaintiffs have formulated their case against the port company on the basis of a number of discrete causes of action. The plaintiffs allege that the port company owed a contractual duty to provide safe navigational and pilotage services, a duty of care at common law to provide such services, a statutory duty of care pursuant to the Occupier's Liability Act, 1995 (*the 1995 Act")* and a statutory duty pursuant to the 1996 Act.

27. The alleged breaches of duty are particularised at para. 18 of the statement of claim where the following claims are made:

(a) There was a failure to properly assess the correct maximum sailing draught and a failure to advise the master of that draught;

(b) The advice given to the master as to the maximum sailing draught was incorrect;

(c) There was failure to take proper soundings, to have regard to the sea area forecast or to the weather or the wind force and direction or to the swell and the tides;

(d) It is also alleged that there was a failure to have proper regard to the readings taken by the automatic tidal gauge. In the course of the hearing, it was argued that these readings over the course of a two-day

period prior to the grounding would have suggested a pattern of the tide failing to meet prediction;

(e) Curiously, it is also alleged that there was a failure on the part of the port company to have regard to the squat of the vessel. This is a reference to the reduction of the under keel clearance of a vessel caused by the relative movement of the hull of a moving ship through the surrounding body of water. As a consequence, the hull tends to sink deeper into the water, thereby reducing the under keel clearance. It is not clear how the plaintiffs can contend that the port company should have been aware of the expected squat of this particular vessel.

(f) It is contended that the port company failed to comply with its common law duty to conserve the harbour in a reasonably fit state for use as a port;

(g) There is also an allegation that there was a failure to comply with a similar duty alleged to be owed to ship owners under the 1996 Act;

(h) It is also alleged that there was a failure to comply with a common law duty and a duty under the 1996 Act in respect of the safe navigational and pilotage services provided to vessels.

28. The port company does not dispute that the vessel was admitted to Drogheda Port but maintains that there is no evidential basis in support of the existence of any alleged contractual relationship. The port company highlights that no evidence was given by any of the witnesses called on behalf of the plaintiffs as to the terms of any alleged contract between the parties. With regard to the balance of the case made by the plaintiffs, the port company strongly argues that the question of the safe navigation of the vessel was at all times a matter for the master with the assistance of

the pilot. The port company also contests any suggestion that it owed a statutory duty of care as an *"occupier of premises"* under the 1995 Act. Insofar as the 1996 Act is concerned, the port company maintains that, to the extent that the plaintiffs seek to rely on case law decided under the Harbours Act, 1946 (*"the 1946 Act"),* those authorities must now be read in light of s. 51 of the 1996 Act considered further below.

29. Insofar as the plaintiffs seek to rely on English case law relating to an alleged common law duty of care owed by harbour authorities, the port company submits that the imposition of such a common law duty of care in Irish law on a harbour company created pursuant to the 1996 Act is something which should be approached with caution. The port company has drawn attention in particular to ss. 11, 12, 46, 51 and 63 of the 1996 Act. In its closing written submissions, the port company stressed that the burden is on the plaintiffs to satisfy the court that the duties of harbour authorities which have been held to exist by the English authorities should also apply to harbour authorities constituted in Ireland under the 1996 Act. I accept that, of course, the burden is on the plaintiffs. Nevertheless, I have to record my surprise that the port company was not more forthcoming in relation to the duties imposed by law on such a body. I believe that the court is entitled to expect that such a body would more actively assist the court in relation to the identification of the relevant legal principles applicable in a case such as this.

30. In its closing written submissions, the port company also maintained that, even if the plaintiff satisfies the court as to the existence of a duty on the part of the port company, any such duty can be no more than a duty to take reasonable care that users of the port do not suffer an injury to their person or their property while using the port. The submission continues:

"This may be said to extend to the provision of information to users of the Port. In this case, it is submitted that the Plaintiffs have failed to adduce any or any sufficient evidence to satisfy the Court that reasonable care was not taken by the Defendant in the provision of information to the Plaintiffs about the available depths in the channel".

31. In the alternative, the port company argues that, even if the court finds that reasonable care was not taken by the port company, the breach of duty was one shared with the pilot such that the loss was not caused by any alleged breach by the port company and, in accordance with s. 63 of the 1996 Act, the port company contends that the plaintiffs are not entitled to recover. The port company argues that the pilot carried out his own assessment as to under keel clearance and he had the same if not better knowledge than the Harbour Master as to conditions at the port and on the bar on 13th December, 2018.

32. In the course of the closing oral submissions of counsel, two new themes were put forward on behalf of the port company. It was suggested that, in circumstances where the actions of the Harbour Master were called into question, the relevant standard to be applied should be the same as that applicable to actions for professional negligence. On that basis, it was submitted that there was a *"real evidential problem"* for the plaintiffs in this case in circumstances where they have not called evidence from an independent harbour master. In contrast to Captain McJury, Captain Walton, the expert retained on behalf of the plaintiff, had no experience as a harbour master. In addition, it was submitted that the harbour master was exercising a public law function and that there should be a degree of deference given to his decisions or his actions in relation to the matters at issue. The plaintiffs object that neither of these themes are covered by the terms of the amended defence delivered on behalf of the

port company and were not even prefigured in the written submissions delivered on behalf of the port company in advance of the trial or at the conclusion of the evidence. In my view, there is considerable force to the plaintiffs' objection at least in so far as it may be suggested that these matters can be raised in response to the occupiers' liability claim. That said, the submission might possibly have some traction in the event that the plaintiffs had a case to make under s. 46 of the 2006 Act (considered in paras. 45 to 48 below). Save to that extent, I cannot see any basis for it. It is important to keep in mind that the plaintiffs have sued the port company. They have not sued the harbour master. In such circumstances, I fail to see how this should be treated as a professional negligence claim. Equally, if, for example, the plaintiffs are correct in suggesting that the port company owes a duty as an occupier to users of the port, the fact that it is a public body will be irrelevant. Its liability will fall to be assessed under the Occupiers Liability Act 1995 and it would be quite inappropriate for the court to show any deference to it. I will therefore proceed to consider, in turn, the several bases on which the plaintiffs advance their case, commencing with the case made in contract, followed by a consideration of the case made by reference to the various statutory duties alleged and, to the extent relevant, the case made by reference to common law duties.

The contractual claim

33. I do not propose, in this judgment, to spend time on the nature of the contract that may have existed between the port company and any of the plaintiffs. It seems to me that there is considerable force in the submission made on behalf of the port company that insufficient evidence has been given as to the nature of any such contract. Having regard to the English case law cited by the plaintiffs, it appears to me

to be likely that the entry of a ship into a port with the consent of the relevant port company will ordinarily give rise to a contractual relationship. However, there would need to be considerably more evidence before the court addressing the terms of that contract before the court could be in a position to form any conclusion as to the terms or the legal effect of the relevant contract. As counsel for the plaintiffs fairly acknowledged in his closing submissions on Day 8 of the hearing, the plaintiffs have not *"focused hugely in relation to describing every term and condition, in relation to* [the contractual claim] *because the relevant … duty which is going to be relatively coterminous between the common law breach of duty and the other* [bases]*, whether it is Occupier's Liability, and we are not saying that there is any greater responsibility under the contract"*.

34. In the circumstances, it seems to me that I should confine myself, in this judgment, to a consideration of the extent to which it could be said that the port company owed any duties to any of the plaintiffs derived either from the common law or from statute. For this purpose, the plaintiffs rely on the 1996 Act. In the alternative, the plaintiffs invoke the Occupiers' Liability Act, 1995 ("*the 1995 Act*"). They also contend that the port company owes duties at common law. Accordingly, it is necessary, in the first instance, to examine the provisions of the 1996 Act under which the port company was constituted. It will then be necessary to consider the provisions of the 1995 Act and also the relevant case law on which the plaintiffs rely in support of the case they make by reference to common law principles. The port company has suggested that the 1996 Act has significant implications for the case which the plaintiffs seek to make by reference to (a) common law principles, (b) cases decided under the pre-existing Harbours Acts, and (c) the case made by reference to the 1995 Act.

The 1996 Act

35. According to the long title to the 1996 Act, its purpose is to make further and better provision in relation to the management, control, operation and development of certain harbours and to enable the Minister for the Marine to establish companies in respect of certain harbours for that purpose and to define the functions of companies so established. In addition, the long title explains that a further purpose of the 1996 Act is to revise the law relating to pilotage.

36. The first schedule to the 1996 Act identifies the harbours in respect of which companies may be established under the 1996 Act. This includes most of the major harbours in the State with the exception of the privately owned Greenore Port. Drogheda Harbour is one of the harbours listed in the first schedule.

37. Importantly, s. 5(1)(a) makes clear that the provisions of the Harbours Acts, 1946 to 1976 stand repealed in relation to any harbour established under the 1996 Act. As noted above, the port company submits that this makes the cases decided under the earlier Harbours Acts irrelevant and inapplicable.

38. Section 7 of the 1996 Act deals with the formation of companies in respect of each of the harbours mentioned in the first schedule. Section 7(1) provides that the Minister for the Marine (with the consent of the Minister for Finance) may in respect of each harbour mentioned in the first schedule cause a private company "*conforming to the conditions laid down in this Act to be formed and registered under the Companies Acts"*. The port company was established pursuant to s.7(1) of the 1996 Act. Thus, none of the provisions of the 1946 to 1976 Acts apply to the port company.

39. Section 11(1) of the 1996 Act identifies the principal objects of a company established under the Act. Although such companies are clearly intended to operate in

a more commercial way than the authorities appointed under the pre-existing legislation, their functions are still very much of a public nature. This was noted by Fennelly J. in the Supreme Court in *Attorney General (O.F. Fishing Ltd) v. Port of Waterford Co* [2007] 2 I.R. 156 at p. 165. For present purposes, the objects identified in paras. (a) to (b) of that subsection are relevant. They provide as follows:-

> *"(1) The principal objects of a company shall be stated in its memorandum of association to be—*
>
> *(a) to take all proper measures for the management, control, operation and development of its harbour and the approach channels thereto,*
>
> *(b) to provide such facilities, services, accommodation and lands in its harbour for ships, goods and passengers as it considers necessary,*
>
> *(c) ..."*

40. Section 12 of the 1996 Act deals with the general duty of a harbour company established under the Act. Insofar as relevant, s. 12(1) provides as follows:-

> *"(1) It shall be the general duty of a company—*
>
> *(a) ...*
>
> *(b) to conduct its business at all times in a cost effective and efficient manner,*
>
> *(c) to regulate operations within its harbour,*
>
> *(d) ..."*

41. The plaintiffs have sought to rely, in this context, on an observation made by Flood J. in *John C Doherty Timber Ltd v. Drogheda Harbour Commissioners* [1993] 1 I.R. 315 in relation to s. 47 of the Harbours Act, 1946 ("*the 1946 Act*") under which

harbour authorities were required to take all proper measures for the management, control and operation of their harbour and to provide reasonable facilities and accommodation for vessels, goods and passengers. Flood J., at p. 323 expressed the view that:-

> *"Undoubtedly the duties of the harbour authority under s. 47 of the Act of 1946 are very wide…"*

However, notwithstanding this observation, Flood J. held that there was no breach of the duty on the particular facts of that case. There, the plaintiffs were timber importers who imported product through the port of Drogheda and were permitted to unload and leave goods on the quayside which was open to the public and totality unenclosed. In November, 1988, a cargo of timber was discharged at the port but was subsequently set on fire by children and destroyed. The plaintiff commenced proceedings against the defendant (the predecessor to the port company here) claiming damages for negligence, breach of an alleged duty as bailee and breach of statutory duty under s. 52 of the 1946 Act. Flood J. rejected the case made based on duty of care and on bailment. With regard to the alleged breach of statutory duty, having made the observation about the duties being *"very wide"*, Flood J. also rejected that element of the case. He said at p. 323:-

> *"...but I think that the due performance of these duties must be related to the physical reality presented by the quayside in question. This quay had been used as an open quay virtually since the founding of the harbour back in the 17th Century. It is in fact part of a public thoroughfare and to impose a duty of safe custody or something akin to safe custody on the harbour authority in relation to goods permitted to be placed on the quayside, and placed by the owners… in the full knowledge that the quayside was open to all and sundry,*

would be an excessively wide interpretation of the duties imposed by this section and would be unrealistic. In my opinion no such duty can be inferred from this section."

42. In my view, the language of ss. 11 and 12 of the 1996 Act is quite different to s. 47 of the 1946 Act. In contrast to s. 47 of the 1946 Act, s. 11 does not expressly impose a duty on a harbour authority to take all proper measures for the management of a harbour. Section 47 of the 1946 Act explicitly imposed such a duty. Section 46(1) stated that *"a harbour authority* ***shall*** *take all proper measures for the management, control and operation of their harbour* ***shall*** *provide reasonable facilities and accommodation therein for vessels…"* (emphasis added). The contrast between this language and the much less prescriptive language of s.12 of the 1996 Act is striking. While s. 12 imposes some duties on a harbour company, they do not come anywhere close to the duties imposed under the 1946 Act. Had it been the intention of the Oireachtas to continue to impose a duty akin to that previously imposed under s.47 of the 1946 Act, one would expect that similar language would have been used in the 1996 Act.

43. The port company, in the course of its submissions, highlighted the provisions of s. 12(2) of the 1996 Act which makes clear that s. 12(1) is not intended to give rise to any additional liabilities on the part of a harbour company. Section 12(2) provides as follows:

"12.(2)Nothing in section 11 or this section shall be construed as imposing on a company, either directly or indirectly, any form of duty or liability enforceable by proceedings before any court to which it would not otherwise be subject."

44. While s. 12(2) is plainly designed to exclude any possibility that the provisions of ss. 11 and 12 might extend the liability or duties of a harbour company, its provisions nonetheless appear to recognise that, quite apart from ss. 11 and 12 of the 1996 Act, there may be duties or liabilities enforceable against a harbour company. This would seem to follow from the use of the words *"which it would not otherwise be subject"*. Those words seem to me to recognise the existence of pre-existing duties or liabilities albeit that they provide no guidance as to what those duties or liabilities might be. I should, however, make clear that, in my view, s. 12(2) falls far short of abolishing or abrogating any duty that a harbour authority may owe to users of its harbour under any other provision of statute or under the common law. In this context, there is a presumption (albeit no more than that) that, where the Oireachtas makes a change in the law, this will be clearly provided for. The relevant principle is described in *Bennion, Bailey and Norbury on Statutory Interpretation*, 8th Ed., 2020 at pp. 837-838:-

> *"26.7 It is a principle of legal policy that changes to the law should be deliberate and carefully worked out, and that neither the common law nor statute should be altered by a mere sidewind. This principle forms part of the context against which legislation is enacted and, when interpreting legislation, a court should take it into account.*
>
> ***Comment***
>
> *The principle that law should not be subject to casual change was put succinctly by Lord Devlin in National Assistance Board v Wilkinson:*

"It is a well-established principle of construction that a statute is not to be taken as effecting a fundamental alteration in the general law unless it uses words that point unmistakably to that conclusion."

The presumption that the legislature does not intend to make a change in existing law by a sidewind arises from the nature of the legislative process. It is, or should be, a serious business. Changes to the law should be carefully worked out. The more fundamental the change, the more thoroughgoing and considered should be the provisions by which it is implemented."

45. Having regard to this principle, I do not believe that s. 12 (2) should be interpreted as abrogating any pre-existing duties. The question remains whether, apart from ss. 11 and 12, there are any other provisions of the 2006 Act which impose duties on the port company. In this context, there are detailed provisions contained in the 1996 Act in relation to a number of aspects of the operations of a harbour company. With some exceptions, most of them are not relevant for present purposes. Section 37(1)(a)(i) is of some relevance. It provides that a harbour company is required to employ a harbour master. Section 46(1) of the 1996 Act deals with the power of a harbour master to give directions. Counsel for the port company emphasised this provision. While there is no obligation on the harbour master to issue these directions, counsel submitted that it is crucial to note that decisions regarding the safe use of a harbour are required to be taken by a statutory officer namely the harbour master. Counsel submitted that this is a statutory recognition that the harbour master must have the skill, competence and experience to carry out these functions.

46. Section 46(1) provides as follows:-

"46.(1)The harbour master of a harbour may, subject to any bye-laws in force in relation to the harbour, give to the master of a ship using the

harbour, such directions in connection with the user of the harbour as the harbour master thinks proper for the purpose of protecting persons and property or regulating traffic and, in particular, for the following purposes:

(a) regulating the time at which and the manner in which the ship may approach, enter into, go out of or lie in or at any part of the harbour and regulating the position, mooring, unmooring, placing or removing of the ship,

(b) …,

(c) regulating the take and discharge of ballast in the ship,

(d) regulating the loading or discharging of cargo from the ship,

(e) preventing the ship navigating within the harbour if the harbour master is of the opinion that it is or may become a danger to navigation."

47. The plaintiffs submit that s. 46 should be interpreted in the same way as s. 52 of the Harbours, Docks, and Piers Clauses Act, 1847 ("*the 1847 Act*") which empowered harbour masters to give directions for a number of purposes including regulating the time at which vessels should move within a harbour, regulating the position in which a vessel might load or discharge its cargo and similar directions. The plaintiffs highlight the adoption by Costello J. (as he then was) in *Moyne v. Londonderry Port and Harbour Commissioners* [1986] I.R. 299 at p. 311 of the following observations with regard to s. 52 of the 1847 Act made by Lord Widgery C.J. in *Parn v. Sargent* [1973] 2 Lloyd's Rep. 141 at p.144:-

"The function of the harbour master under sect. 52 is to regulate traffic; after all, it is a public harbour where the public have a right to be there, and it is

not the harbour master's function as such to keep them out. His function is to control and regulate them rather like a traffic policeman regulating traffic. Of course there will be cases when he has to go beyond those simple functions; of course there may be cases when necessity arises and he has to impose wider prohibition for a particular time, but when that happens it is for consideration whether the directions which he gives are reasonable for the emergency or circumstances which prompted them."

48. I am not persuaded that much reliance can be placed on the observations made by Lord Widgery in that case. *Parn v. Sargent* was not concerned with duties of harbour masters. It was concerned with whether particular directions given by the harbour master of the port of Looe in Cornwall were valid and could be justified by the powers conferred on a harbour master by s. 52 of the 1847 Act. Similarly, the decision of the Court of Appeal of England & Wales in *The Guelder Rose* [1927] P.1 (on which the decision in *Parn v. Sargent* was based) was also concerned with the validity of directions given by a harbour master. It was not concerned with whether s. 52 created duties. As Costello J. made clear at p. 310 in *Moyne*, the power of harbour masters to give directions under s. 52 of the 1847 Act was a power to give ad hoc directions to deal with particular occasions. Costello J. expressly found that the direction in issue in that case was *ultra vires* the powers of the harbour master under s. 52 in circumstances where it was a direction given with a view to enforcing a general prohibition on use of a harbour. That was the only relevance of s. 52 in *Moyne*. The *Moyne* case was principally concerned with statutory provisions other than s. 52. Costello J. held that those statutory provisions imposed an obligation on the defendant there to maintain a pier in County Donegal. Costello J. had to decide whether those provisions gave rise to a duty of care owed to the plaintiffs who were coal distributors

and who were accustomed to importing their coal through the port in question. Costello J. came to the conclusion that the provisions had that effect. However, he made clear that whether a statutory provision has this effect will always be a question of construction. At p. 314, he explained the relevant principle in the following terms:-

> *"There are… many different types of statutory duty imposed by many different types of statute. Parliament may impose a duty of care on the owners of factories and mines or it may oblige public authorities to provide different kinds of services, or perform a specific statutory function and it seems to me, in considering whether a statute should be construed as having been enacted in favour of an ascertainable class of persons rather than for the benefit of the public generally, that little assistance is to be found from decided cases as each case must turn on a construction of the statute which imposed the duty in question. Notwithstanding this fact, however, it is clear that the statute with which this case is concerned is strikingly different from that class of statutes which the courts held contained a duty to the public only. Here it cannot reasonably be argued that the duty to maintain the pier was imposed for the benefit of the Irish public generally. The benefit which was being afforded by the pier was being conferred primarily on a definable class of persons, namely those living in the clearly defined geographical area of the Inishowen peninsula, and particularly those living and working on its eastern seaboard…"*

49. There is nothing in the language of s. 46 of the 1996 Act to suggest that it was intended to create any duties at all. Section 46 is concerned with the powers given to harbour masters to regulate activities within a port. As noted above, there is nothing in *Moyne* (or in any of the cases cited by Costello J in that case) which suggests that s.

52 of the 1847 Act imposed duties on a harbour master. In my view, there is, equally, nothing in s. 46 of the 1996 Act which purports to do so. It is, therefore, unnecessary to consider whether s. 46 gives rise to a duty owed to the public at large or, in the language of Fennelly J. in *Glencar Exploration plc v. Mayo County Council (No. 2)* [2002] 1 I.R. 84 at p. 150 *"an identifiable class intended to benefit".* In *Moyne*, Costello J. identified such a class. In my view, the same issue does not arise in relation to s. 46 since the section does not purport to impose obligations on a harbour master. Having said that, it might be the case that, if the harbour master failed to give any directions in relation to the user of a harbour, that would potentially create a danger for users of the port and, arguably, that failure might, in an appropriate case, be held to be a breach of duty to an identifiable class of persons, namely the users of the port. However, that issue does not arise on the facts here in relation to s. 46. Moreover, there is nothing in *Moyne* to suggest that Costello J. thought that s. 52 of the 1847 Act gave rise to any duties. As noted above, his observations in relation to statutory duty were made in the context of other statutory provisions.

50. In addition, s. 46(1) should be read in conjunction with s. 51 of the 1996 Act which provides as follows:-

> *"51. A direction given to or a requirement made of the master of a ship by a harbour master under this Act or an instrument made thereunder shall not extend or diminish any responsibility of the master of the ship in relation to the ship or the cargo thereof."*

51. The port company placed some emphasis on the provisions of s. 51 in the context of the case which it makes that responsibility for the safe navigation of the vessel remained at all times with the master, Captain Traktatov.

52. Section 63 of the 1996 Act is also relevant for present purposes. It addresses the question of liability for ships under compulsory pilotage. It should be noted that the combined effect of s. 5(2) and the second schedule to the 1996 Act has resulted in the repeal of the Pilotage Act, 1913 ("*the 1913 Act*") in respect of harbours such as Drogheda Port which are covered by the 1996 Act. Section 63 is now the relevant provision dealing with liability where a ship is under compulsory pilotage. Section 63 has the effect that, where a ship is under compulsory pilotage, the owner or master of the vessel nonetheless remains responsible for safe navigation. It provides as follows:-

> *"63. The fact that a ship is being navigated in a pilotage district in circumstances in which pilotage is compulsory for it shall not affect any liability of the owner or master of the ship for any loss or damage caused by the ship or by the manner in which it is navigated".*

53. The effect of s. 63 is examined in more detail in para. 96 and following paras. below It should also be noted that, under ss. 42 and 71 of the 1996 Act, port companies may make bye-laws of the kind set out in the sixth schedule to the 1996 Act in relation to the use and control of the harbour and the regulation of pilots. These include bye-laws specifying the circumstances in which pilotage is to be compulsory, prescribing requirements that must be satisfied by a pilot in order to be granted a pilot's licence and providing generally for the regulation of pilots licensed in the relevant port.

54. One further feature of the 1996 Act should be noted. The limits of Drogheda Harbour are prescribed under para. 9 of the third schedule to the 1996 Act. As previously noted, there is no dispute between the parties that the site of the grounding of the vessel lies within those limits. The limits run from specific points within the town of Drogheda and from there to the Aleria beacon on the northern side of the

Boyne Estuary along the line of the high water mark bounding the eastern shores of the townland of Baltray and terminating at Duffs farm and to the southeast, along the high water mark to the Maiden Tower and from there along the high water mark of the eastern shore of the townland of Mornington to the southerly extremity of Bettystown.

55. Having regard to my analysis of the provisions of the 1996 Act (outlined above), I cannot see any basis upon which it could be suggested that the plaintiffs have any cause of action against the port company by reference to the provisions of the 1996 Act. In my view, the plaintiffs have failed to establish that the port company owed any statutory duty under the 1996 Act to users of the port which is relevant to the grounding of the vessel here. In the circumstances, it is unnecessary to consider whether there was a duty owed to a special class of persons (as opposed to the public at large) in order to give rise to a cause of action against the port company under the Act. That said, for the reasons explained in para. 44 above, s. 12(2) of the 1996 Act appears to me to recognise the existence of other duties or liabilities which may arise for a harbour authority outside the ambit of the 2006 Act. As noted in para. 44, s. 12(2) appears to me to fall short of abolishing or abrogating any duty that a harbour authority may owe to users of its harbour under any other statutory provisions or under the common law. It is therefore necessary to consider the other aspects of the case made by the plaintiffs. While the 1996 Act may need to be kept in mind in relation to those aspects of the plaintiffs' case, I am satisfied that the plaintiffs have failed to establish that any relevant duties were owed to them by the port company under the 1996 Act such as to give the plaintiffs a cause of action under that Act.

Occupiers' liability

56. The plaintiffs also seek to rely, in the alternative, on the 1995 Act. The plaintiffs submit that the grounding of the vessel plainly took place within the limits of Drogheda Harbour which they contend constitutes a *"premises"* for the purposes of the 1995 Act. They argue that, accordingly, the 1995 Act applies. They refer to English authority which they suggest supports the view that a harbour authority has a liability as an occupier of premises. They refer, in particular, to a number of English decisions in which it was held that the UK occupiers' liability legislation applied to harbour authorities. They also rely on a pre-1995 authority in Ireland namely the decision of the Supreme Court in *Walsh v. Galway Harbour Commissioners* (Supreme Court, Unreported, 18th December, 1972).

57. In response, the port company question whether the 1995 Act could be said to apply. The port company submits that the English authorities cited by the plaintiffs should be approached with considerable care, given that the provisions of the UK occupiers' liability legislation are different to the 1995 Act. They also submit that caution should be exercised in applying what they describe as an *"omnibus law such as the Occupiers' Liability Act 1995"* in the context of an activity which is regulated under the 1996 Act. Insofar as the decision of the Supreme Court in *Walsh* is concerned, the port company argues that the facts of that case were significantly different to the situation which confronts the court here. The port company has also called into question whether it could plausibly be suggested that the approach channel to a harbour at the mouth of a river could be said to constitute a *"premises"* for the purposes of the 1995 Act. The port company suggests that it is equally doubtful that it could be considered to be an *"occupier"* within the meaning of the 1995 Act.

58. The long title to the 1995 Act makes clear that it was intended to amend the law relating to the *"liability of occupiers of premises (including land) in respect of dangers existing on such premises for injury or damage to persons or property while on such premises"*. For this purpose, *"danger"* is defined by s. 1(1) as meaning, in relation to any premises, a *"danger due to the state of the premises"*.

59. A very wide definition is given to the term *"premises"* in s. 1(1). The definition is non-exhaustive and states that the term *"includes land, water and any fixed or moveable structures thereon and also includes vessels, vehicles, trains, aircraft and other means of transport"*. McMahon & Binchy in *"Law of Torts"* 4th Edition, 2013, at para. 12.78 observe that the breadth of this definition reflects the former common law. The plaintiffs highlight that, in *Walsh v. Galway Harbour Commissioners* the defendant harbour authority was found liable by reference to the common law principles which predate the 1995 Act. However, as the port company has submitted, the facts of that case were very different. There, the issue related to the liability of the defendant as occupier of the docks at Galway comprising the quayside and adjoining causeway which was constructed by the defendants. Such a location in the immediate vicinity of a port is far removed from the location in issue here namely the mouth of the River Boyne. Thus, the decision does not assist in determining whether a location of that kind could be said to constitute a *"premises"* for the purposes of the 1995 Act or make the port company the *"occupier"* of such *"premises"* for the purposes of that Act.

60. Furthermore, several of the English authorities on which the plaintiffs rely similarly arise in relation to incidents which occurred in the immediate vicinity of docks constructed by the relevant harbour authority. Thus, in *"The Charlotte"* [2005] 2 Lloyd's Law Reports 626, damage was done to a ship which was berthed within an

enclosed dock operated by the defendant. The ship was damaged in low water when its hull settled upon a steel coil on the dock bottom. A case was brought against the owner of the dock under the UK Occupiers' Liability Act 1957 and also in negligence. The deputy judge who heard the case appears to have decided the issue by reference to negligence principles rather than by reference to the UK Statute. The decision, therefore, does not assist. Not only are the facts quite different but there is no discussion in the judgment about the circumstances in which the UK statute could be said to apply to the claim.

61. The same applies to *"The Ballyalton"* [1961] 1 W.L.R. 929 where, again, a ship was damaged while lying aground at a berth. There is no discussion in the judgment of Karminski J. in relation to the application of the UK 1957 Statute. The judgment is concerned solely with whether the Preston Corporation, the owner of the docks in question, was relieved of any liability by virtue of a notice purporting to disclaim any liability.

62. Similarly, *Donoghue v. Folkestone Properties Ltd* [2003] QB 1008 concerned the liability of the defendant under the UK Occupiers' Liability Act 1984 in respect of an accident which occurred adjacent to a slipway in the docks. In that case, a professional diver had dived from the slipway into the harbour. The diver was injured when he struck his head on a grid pile under the water immediately adjacent to the harbour wall and broke his neck rendering him tetraplegic. While there is considerable discussion in the judgment of Lord Phillips MR about the provisions of the 1957 and 1984 Acts in the UK, the underlying facts are not dissimilar to *Walsh* (albeit that the damage in the latter case was suffered by a motorist rather than a diver). In my view, the decision does not assist in determining whether the 1995 Act can be said to apply

to an area such as the mouth of the River Boyne. It is concerned with the liability of a harbour authority in respect of docks constructed by that authority.

63. The plaintiffs also rely on a terse statement in *Mandaraka – Sheppard* in *Modern Maritime Law,* Volume 2, 3rd Edition, 2014 at para. 4.3.6 to the effect that *"vessels using ports are invitees, and the Occupiers' Liability Acts 1957 and 1984 will also apply".* Unfortunately, the author does not offer any analysis of the basis upon which the UK Statutes apply. One of the authorities cited by the authors is the decision of Gloster J in *George v. Coastal Marine 2004 Ltd* [2009] EWHC 816 (Admlty). The facts of that case were very similar to the facts in *"The Charlotte"*. The motor vessel *"Bon Ami"* suffered damage while berthed alongside a quay wall constructed by the defendant. In that case, Gloster J concluded that the defendant was an occupier of the quays or sea walls against which vessels would moor. She held that, in contrast, the seabed was owned by the Crown. At para. 20 of her judgment, she explained why the defendant was liable:-

> *"However, the Yard was an occupier, for the purposes of the 1957 Act, of the quays or sea walls against which vessels would moor when berthing…. Even if one assumes in the Yard's favour that it was not an occupier of the seabed, it still had the common law duty of care imposed by section 2(2) to see that the Claimant would be reasonably safe when using the sea wall or quay and thus, in effect, the mooring…. As Marsden on Collisions at Sea 2003, thirteenth edition paragraph 12-52 points out, the duty is to see that a berth is in proper condition, or failing that, to give a warning that it is not. But the duty is merely a duty to take care; the wharfinger is not liable without fault for defects in the dock…".*

64. Given the individual facts of the English cases discussed above, I do not believe that they assist in determining whether, insofar as the site of the grounding is concerned, the port company here could be said to be an occupier of *"premises"* for the purposes of the 1995 Act. There is, however, a decision of the House of Lords in *Anchor Line (Henderson Brothers) Limited v. Dundee Harbour Trustees* 1922 S.C. (H.L.) 79 which addresses the liability of a harbour authority in analogous circumstances. Like this case, the issue related to a danger which existed on the approaches to Dundee harbour on the Tay Estuary. Although decided prior to the enactment of the 1957 statute in the United Kingdom, *Anchor Line* is cited in *Marsden and Gault "Collisions at Sea"*, 14th Ed., 2016, at para. 13-023 as authority for the proposition that harbour authorities have a duty under the 1957 Act to take reasonable steps to remove dangers from a harbour (or at least mark them) where they constitute a danger to shipping. In that case, a number of ships, *en route* to the port of Dundee, were damaged as they sought to navigate the Tay Estuary where they collided with a submerged wreck at the mouth of the estuary. There were no pilots available at the time of the collision and one of the issues in the case related to the liability of the port company for failing to ensure that pilots would be available. That issue is not relevant for present purposes. What is relevant is that, in the course of giving judgment, Lord Haldane made a number of observations which suggested that he regarded the defendant as an occupier for the purposes of the common law duty of an occupier to invitees in accordance with the classic principles on occupiers' liability explained by Willes J. in *Indermaur v. Dames* (1866) L.R. 1 C.P. 274. Lord Haldane expressed the following view at p. 83:-

> *"As to the respondents, they own the harbour to which they must be taken to have invited those navigating vessels to resort, on condition of paying harbour*

rates. The owners of the vessels so resorting to this harbour became under these circumstances more than bare licensees for they would approach the harbour in the course of business in order to exercise a privilege they were to pay for and which they had been invited to exercise. Their legal position would thus be like that of the plaintiff in the well-known case of Indermaur v. Dames and they would be entitled to look for the discharge of a duty resting on the respondents to exercise reasonable care to avert peril to them from any unusual danger of which the respondents knew or ought to have known. It is important to have this in mind, in as much as it bears on the extent of the counter-duty of those approaching the harbour as regards the standard of skill required of them in navigating their vessels in the course of such approach. The latter, approaching under such an invitation as I have referred to, are entitled to rely on care having been taken by those inviting them to avert any unusual danger of which they are cognisant. ...On the other hand, those approaching with their vessels must, notwithstanding their right to rely on such care having been exercised, use care on their own part not to incur peril rashly…".

65. On the facts, the decision in the *Anchor Line* case is much closer to the facts under consideration here than any of the English authorities discussed in paras. 59 to 63 above. The location where the damage occurred is very similar in both cases albeit that the cause of damage is different. The fact that the danger existed at the mouth of a harbour does not appear to have created any impediment to the finding of liability made by the House of Lords. Thus, for the purposes of the common law duty owed by occupiers to invitees, the House of Lords appears to have proceeded on the assumption that the mouth of the harbour constituted a *"premises"* for the purposes of

the application of *Indermaur v. Dames* principles. There are also a number of English authorities (discussed further below) to similar effect. However, it is crucial to bear in mind that the 1995 Act constitutes its own self-contained code governing the liability of *"occupier"* (as defined) of premises. It expressly disapplies any common law duty of care which was previously owed to occupiers of premises in respect of dangers existing on their premises. Section 1(1) of the 1995 Act makes this very clear.

66. It is, therefore, essential to consider whether there is a basis on which to form the view that, insofar as the place of the grounding is concerned, the port company can be considered to be an *"occupier"* within the meaning of s. 1(1) of the 1995 Act. In order for the 1995 Act to apply, there must be an *"occupier"* in relation to premises. Section 1(1) of the 1995 Act defines *"occupier"* as a person *"exercising such control over the state of the premises that it is reasonable to impose upon that person a duty towards an entrant in respect of a particular danger thereon"*. The definition also makes clear that the extent of the duty may depend upon the nature of the entrant and, in particular, whether the entrant concerned is a *"visitor"*, a *"recreational user"* or a trespasser. For present purposes, if the 1995 Act applies, the third named plaintiff as the owner of the vessel was plainly a *"visitor"* within the meaning of the 1995 Act. A *"visitor"* is defined in s. 1(1) as meaning an entrant, other than a recreational user who is present on premises at the invitation or with the permission of the occupier. The term also includes *"an entrant as of right"*. It seems to me that the third named plaintiff would fall within either of these two categories. For completeness, it should be noted that there is a third category of *"visitor"* namely a person who is present on premises by virtue of an express or implied term in a contract. In circumstances where, for the reasons outlined above, I do not propose to consider the nature of the contract between the third named plaintiff and the port

company, I do not believe that it would be appropriate to consider this category of visitor.

67. There are two aspects of the definition of *"occupier"* which are particularly relevant for present purposes:-

(a) In the first place, a person will not be an occupier in the absence of the exercise by that person of control over the state of the premises in question; and

(b) Secondly, the definition requires a consideration of the issue as to whether that exercise of control makes it reasonable to impose a duty towards an entrant of the premises in respect of a particular danger thereon.

68. Insofar as the question of control is concerned, it seems to me that s. 11(1) of the 1996 Act is relevant. As previously noted, while I have formed the view that the 1996 Act does not impose a duty *per se* on the port company, the provisions of the 1996 Act nonetheless appear to me to be of some relevance in considering the other duties which the plaintiffs suggest exist. Section 11 (1) of the 1996 Act requires that the principal objects of any harbour company established under the 1996 Act must be, *inter alia,* to take all proper measures for the management, control, operation and development of its harbour and the approach channels thereto and to provide such facilities, services, accommodation and lands in its harbour for ships, goods and passengers as it considers necessary. While s. 11(1) envisages that a harbour company will exert *"control"* of its harbour and the approach channels, the 1996 Act gives no clear indication of the extent of the control which is envisaged. Given the extensive area encompassed by the limits of the various harbours described in the third schedule to the 1996 Act, it is difficult to conceive that it was intended that a

harbour company should exercise control over every square metre of its harbour such as to make the entire of the area within its limits part of a *"premises"* for the purposes of the 1995 Act and to make the harbour company the occupier of those premises with all of the liabilities and obligations which such a scenario would entail. That would have very far reaching implications. For example, if a dinghy was launched from one of the beaches along the shores of the River Boyne and sailed up the River Boyne along its northern or southern bank and encountered a submerged fallen tree which punctured the dinghy causing it damage, can it have been intended that this would give rise to a liability on the part of the port company as an occupier? It is especially difficult to see how the port company would have a liability as an occupier under the 1995 Act where the fallen tree was at some distance from the navigable channel which is dredged by the port company a number of times during the year. As a matter of principle, that seems to be very far removed from the position of the motorist in the *Walsh* case or any of the plaintiffs in the English cases discussed in paras. 60 to 63 above where damage occurred in an area which had actually been constructed by the relevant defendant and was under the immediate control of that defendant.

69. Insofar as the current position in England & Wales is concerned, the position appears to be that the harbour authorities will only be regarded as an occupier of the relevant docks together with the entrance to the harbour or dock concerned. In this context, the authors of *Marsden & Gault* suggest at para. 13-023, that harbour authorities will owe a duty of care to visitors under the 1957 Act *"as regards the area of a harbour of which the harbour authority can be said to be occupiers or possessors"*. In a footnote to this passage, the authors state:-

> *"For these purposes, it is suggested that the authority will be the occupier of those areas which it owns…and of areas over which it exercises a substantial*

> *degree of de facto control. As a rule of thumb, it is thought that the authority will be regarded as the occupier of areas within the entrance of the harbour or dock involved: but each case is likely to depend very much on its specific facts."*

In the same paragraph, the authors say that, where the 1957 Act applies, the harbour authority will have a duty to take reasonable steps to remove wrecks from a harbour (or at least to mark them) insofar as they are a danger to shipping, and to see that berths and harbours in their possession are in adequate condition. In a footnote to this passage, the authors refer to s.2(2) of the 1957 Act and in the same footnote they suggest that the Act broadly reproduces the former law applicable under the *Mersey Docks* case discussed below.

70. In light of the dearth of authority in Ireland and in light of the somewhat tentative view expressed by the authors of *Marsden & Gault*, it may be helpful to consider the position that applied at common law and, in particular, to consider the cases relating to the common law duties of the owner of a harbour towards its users particularly in relation to the outer limits of the relevant harbour. The common law cases may assist in identifying what, prior to the enactment of the 1995 Act, was considered to be reasonable, insofar as the duties of a harbour authority or harbour owner are concerned. As noted in para. 59 above, McMahon & Binchy observe that the breadth of the definition of *"premises"* in the 1995 Act reflects the former common law. The cases decided by reference to the pre-existing common law are therefore likely to shed light on the extent to which a harbour authority can be said to be the occupier of the outer limits of a harbour. I will, therefore, defer any final conclusions in relation to the potential application of the 1995 Act until I have examined the common law position.

The common law duty of a harbour authority

71. The principal authority on which the plaintiffs rely in support of their submission that, at common law, the port company owed a duty to port users in respect of Drogheda Port is the decision of the House of Lords in *Mersey Docks and Harbour Board Trustees v. Gibbs* (1866) LR 1 HL 93. In that case, two ships were damaged as they tried to enter a dock constructed by the Mersey Docks and Harbour Board. The hulls of both ships were damaged by a bank of mud at the entrance to the harbour. It was clear, on the evidence, that the harbour board should have been aware of the accumulation of mud in question. Lord Cranworth L.C. held that, at common law, the harbour board owed a duty to the owners of the ships to take reasonable care that the ships could navigate the entrance to the docks without danger to their lives or property. He said:-

> *"What are the principles which regulate the liabilities of such a body as that of the…Harbour Board? Where such a body is constituted by statute having the right to levy tolls for their own profit in consideration of their making and maintaining a dock or a canal, there is no doubt of their liability to make good to the persons using it any damage occasioned by their neglect in not keeping the works in proper repair. …The common law in such a case imposes a duty upon the proprietors to take reasonable care so long as they keep the canal open for the public use of all who may choose to navigate it, so that they may do so without danger to their lives or properties. …The only difference…is that here the appellants, in whom the docks are vested, do not collect tolls for their own profit, but merely as trustees for the benefit of the public. I do not, however, think that this makes any difference in principle in respect to their*

liability. It would be a strange distinction to persons coming with their ships to different ports of this country that in some ports, if they sustain damage by the negligence of those who have the management of the docks, they will be entitled to compensation, and in others they will not, such a distinction arising, not from any visible difference in the docks themselves, but from some… difference in the constitution of the bodies by whom the docks are managed…"

72. I should explain the reference by Lord Cranworth to the *"strange distinction"*. The Mersey Docks and Harbour Board trustees was a public authority which had not been established for the purposes of making a profit. At the time of the decision in that case, it was already settled law by virtue of the decision in *Parnaby v. Lancaster Canal Company* (1839) 11 Ad & El 223 that, where a harbour company was established by statute having the right to levy tolls for its own profit, it had a liability to make good to users of its port any damage occasioned by its neglect in not keeping the port in proper repair. It was argued in the *Mersey Docks* case that a different principle should apply to a body that was not established to make a profit. However, for the reasons outlined by Lord Cranworth in the passage quoted above, that submission was rejected by the House of Lords. It is also noteworthy that the decision in the *Mersey Docks* case predated the well-known decision on occupiers' liability (in the case of the occupier of premises on land) in *Indermaur v. Dames*. The judgment of Willes J. in that case was given on 26th February, 1867. The decision of the House of Lords in *Mersey Docks* was given on 5th June, 1866. In turn, the *Mersey Docks* case was preceded by the *Parnaby* case where the Court of Exchequer Chamber (as early as 1839) stated the law in the following terms at p. 242:-

> *"The facts… show that the company made the canal for their profit, and opened it to the public upon payment of tolls…; and the common law in such a case imposes a duty upon the proprietors, not perhaps to repair the canal, or absolutely to free it from obstructions, but to take reasonable care, so long as they keep it open for the public use of all who may choose to navigate it, that they may navigate it without danger to their lives or property."*

73. The approach taken in the *Mersey Docks* case has been followed and applied in a large number of subsequent cases decided before the enactment in the United Kingdom of legislation regulating the liability of occupiers. Thus, for example, in *St Just Steam Ship Company v. Hartlepool Port & Harbour Commissioners* (1929) 34 Ll. L. Rep. 344, Wright J. (as he then was) held the defendant harbour commissioners liable in respect of damage done to a ship by a submerged wreck at the entrance to Hartlepool Port. Before entering the port, the ship anchored outside the port (but within the jurisdiction of the defendant) with a view to awaiting the next suitable tide. The point where the ship anchored was, in the words of Wright J. *"a point at which any vessel similarly situated, that is to say, not being able to get in on the tide would naturally anchor"*. The relevant chart showed the position of the wreck but when the master discussed the wreck with the pilot, he was told that there had been a wreck in 1916 but that the wreck had been dispersed and could be disregarded and that the position was *"quite safe"*. It transpired, however, that the wreck was still present and had not been dispersed. As a consequence, the ship suffered damage after striking the wreck as the tide ebbed. The defendant, in that case, had a statutory obligation to remove wrecks in the harbour. However, Wright J., in his judgment, made clear that the liability of the defendant was not dependent upon the terms of the relevant statute.

Relying on the observations of Lord Cranworth in the *Mersey Docks* case, Wright J. said at p. 348:-

> *"It is not contested that this wreck… was a danger to navigation, and it is not in question that the plaintiffs are liable to pay to the defendants… tolls. That being so, the duty of the defendants is a duty to the plaintiffs arising out of the particular relationship which is constituted when a ship approaches the harbour… that is to say, entering a port managed by the defendants as harbour commissioners and a port for the entry of which the plaintiffs are bound to pay the appropriate dues. In those circumstances the law is now well established. The liability of the Commissioners in such a case does not directly depend on the terms of the private Act. It depends on the special relations arising de novo as each ship enters the jurisdiction of the port, and it is a duty which had been very clearly expressed in a number of cases which is said to be analogous to the ordinary common or duty existing as between invitor and invitee…"*

74. A similar approach was taken by the Court of Appeal of England & Wales in *Bede Steamship Company v. River Wear Commissioners* [1907] 1 K.B. 310. In that case, a ship was prevented from leaving a dock in the Port of Sunderland for a period of four days as a consequence of the siltation at the pier entrance. The plaintiff claimed damages for the losses caused by the delay on the basis (*inter alia*) that the defendants knew or ought to have known that the entrance and approaches to the docks were inaccessible as a consequence of siltation. In that case, the defendants had a statutory obligation to *"deepen cleanse scour the… river Wear within the limits of this Act, and to cleanse, deepen and enlarge the channel of the said river… to the mouth thereof… and to make such other works… as shall be necessary for promoting*

or preserving the navigation of the said river, and for that purpose to remove any… sand… rubbish or other matter which had obstruct the navigation of the said river…". Notwithstanding the express statutory duty imposed on the defendant, the Court of Appeal took the view that, while that made the case stronger, a similar principle would apply even where there was no express statutory provision to that effect. This is clear from the following passage from the judgment of Farwell L.J. at pp. 327-328:-

> *"It is admitted that the dock… and the access thereto are part of the undertaking of the defendant… in respect of which they had statutory duties to perform. It is clear that a corporation authorized by statute to maintain and keep open a dock, and to charge a toll for its use, is under an obligation at common law to take reasonable care to keep the access thereto, so far as such access is vested in them, or under their control, free from obstacles, so that the public may use it without danger, whether such tolls are taken for the private benefit of the corporation or are applied in performing a public duty bringing no profit to the corporation. The authorities for that proposition are Mersey Docks Trustees v. Gibbs… and the case is stronger when… the Commissioners are not merely empowered, but are required, amongst other things, to remove all obstructions that may in any way impede the navigation or the use of the port… Nor is it any answer to say, as has been argued here, that the defendants were not idle, but were employing their resources in other parts of the undertaking. Lord Blackburn has dealt with that argument in… Mersey Docks Trustees… He says:*
>
> > *"It is obvious that a ship owner who pays dock rates for the use of the dock, or the owner of goods who pays warehouse rates for the use of a*

> *warehouse and the services of the warehousemen, is, as far as he is concerned, exactly in the same position, however the rates may be appropriated. He pays the rates for the dock accommodation, or for warehouse accommodation and services, and he is entitled to expect that reasonable care should be taken that he shall not be exposed to danger in using the accommodation for which he has paid."*
>
> *Whatever may be the difficulty of formulating any rule as to the depth of water that may be required by ships desiring to enter a dock, I think it follows, as a necessary corollary to the rule stated above, that there is a further obligation to take reasonable care to keep the approaches to the dock clear to a depth sufficient to allow every vessel received into the dock to leave again with a full load under normal conditions of wind and weather. Here the judge has found that it was necessary for this purpose to dredge a channel through the so-called bar at the pier heads and to keep the channel clear, and I agree with that finding. The… judge has further found as a fact that reasonable care was not taken in the performance of this duty and I think that his finding in this respect was also quite right…"*

75. It appears to me to be clear from that passage that, although Farwell L.J. said that, on the particular facts of that case, the position was *"stronger"* where the port authority was under an express statutory obligation to keep the access to the port clear, a similar principle also applies where the harbour authority is simply authorised by statute to maintain and keep open a harbour. The plaintiffs have drawn attention, in this context, to the requirement in s. 11(1)(a) of the 1996 Act that the principal objects of a harbour company (which includes the port company here) must be (among other things) to take all proper measures not only for the management, control operation

and development of its harbour but also of *"the approach channels thereto"*. The port company here submits that this decision can be distinguished on the basis that there had been an opportunity to dredge the silt and also on the basis that the defendants there were specifically aware of the level of silting at the bar. At p. 324, the report of the case confirms that Collins M.R. reached the conclusion *"in substance, that there was evidence that the defendants were aware that silt was, at the time in question, accumulating on the bar, and that, notwithstanding the fact that they had been for considerable periods prevented from dredging by the weather, there had been opportunities, of which they could and ought to have availed themselves, for dredging away the silt sufficiently to enable the…ship to get out to sea…"*. The port company is therefore correct in suggesting that these were important facts which influenced the determination made by the court in that case that the defendant was liable. That said, the decision demonstrates that the harbour authority may be exposed to liability in circumstances where it is aware of siltation which may constitute a danger to shipping in its harbour. The decision is therefore very relevant to the legal issue under discussion.

76. The plaintiffs also draw attention, in this context, to the decision of the House of Lords in *Workington Harbour and Dock Board v. Towerfield* [1951] A.C. 112. In that case, a ship under compulsory pilotage was grounded in 1941 in the approaches to Workington Harbour. The harbour board had notified mariners by means of notices and by an insertion in the Admiralty charts that, in the approach channel, a depth of 4.5 feet C.D. was maintained by dredging. It was also indicated that the dredged channel was 250 feet wide. The pilot, after boarding the ship, received a message from the harbour master to the effect that the tug was not available to assist but the pilot decided nevertheless to bring the ship into port. However, the ship grounded. It

became apparent that neither the advertised depth nor the advertised width of the channel had been maintained. The grounding occurred on 19th October, 1941. The defendants had carried out soundings on 22nd September, 1941 but these were held to have been taken in a *"hasty and slipshod manner"* but nonetheless they showed an accretion of silt on the north and south sides of the channel. The last dredging work carried out was on 9th October, 1941. The House of Lords held that the pilot was partly responsible in that he was aware of an *"encroachment"* in the neighbourhood of the channel and did not take due care to avoid it. However, the House of Lords also found that the harbour authority was negligent. It was held that there were two aspects to the negligence of the harbour authority. In the first place, there was a failure to adequately warn of the dangers to shipping. A majority of the House of Lords held that the duty to give a warning to the master arose from the relationship of invitor and invitee which existed between the ship and the harbour authority. Secondly, it was held that the harbour authority failed to use due diligence to ascertain the facts in relation to the state of the harbour.

77. Both of these aspects of the judgment are addressed in clear terms by Lord Porter. In the All England report of the case ([1950] 2 All E.R. 414 at p. 417), Lord Porter first provided a very useful description of the state of the channel. He explained that the information given on the Admiralty chart was inaccurate and misleading. He continued as follows at p. 417:-

> *"The advertised dredged depth has seldom, if ever, been maintained throughout the whole of the 250 feet channel. There is a bar abreast of the seaward end of the south jetty where silt tends to accumulate and where depths substantially less than that advertised are habitually to be found. Also on the south side of the channel along the south pier, and also along the*

northern side opposite to it, banks tend to form and have the effect of constricting the width of the navigable channel to something substantially less than the advertised width of 250 feet. The formation of these banks depends largely on the weather, the prevailing south-west wind having a tendency to cause a littoral drift of slag and rubble which sweeps along the coast and round the end of the south pier, to be deposited along the side of the channel. Floods in the River Derwent also tend to cause a deposit of silt in the channel, particularly on the north side. In consequence of these difficulties it appears that the Defendants have never really succeeded in maintaining their advertised depth throughout the length and breadth of the entrance channel."

78. Returning to the official reports, Lord Porter explained the first basis on which the harbour company was liable in the following terms at p. 129:-

"The question of the negligence of the harbour authorities presents less difficulties…

No doubt the harbour board's task of keeping the approach dredged to the depth shown on the inset was rendered less easy of accomplishment by war-time conditions and if their only fault had consisted in a failure to do so, I do not think I should find them to blame. It is the failure to warn rather than the failure or inability to act to which exception can be taken. It was suggested on their behalf that a sufficient indication of the dangers to be met with were to be found in the warning contained in the Supplement to the West Coast of England Pilot. Originally, that publication had contained the statement that depths of 4 ½ ft. are maintained in the basin and in the channel in the approach to it, but this assurance is qualified in the Supplement when it says:

"less depth will be found in places; owing to the difficulty of dredging on the outer bar, depths of about 1 foot are common there". This phraseology however is to my mind totally inadequate to convey the information that there were banks on each of the channel rising considerably above that height and extending someway into the channel itself. In the circumstances, in my view, a much clearer statement of the condition of the approach should have been given."

79. At p. 131, Lord Porter explained the second basis on which the harbour board was found to be negligent. He said:-

"The harbour board's negligence… was not confined to a failure to warn the ship owners of facts within their own knowledge. They also failed to use due diligence to ascertain the facts with which they should have been acquainted. The soundings… were taken in a hasty and slipshod manner, but even so they showed the accretions on the north and south. Moreover, no soundings had been taken since September 22, and no dredgings had been done on the north side after October 9.

Upon these facts, the… judge… found the harbour authority to blame for failing to maintain the width and depth of the channel advertised (thereby rendering the published information misleading), in failing to ascertain by proper and regular soundings what obstructions existed in the channel and exactly where they were and in failing adequately to warn the users of the port of dangers which the harbour authority knew or ought to have known… In answer to these charges, the harbour board rely upon the contention that the

pilot was intimately acquainted with the port and that he knew, or at any rate they were entitled to assume that he knew, its exact conditions.

I do not think that such an assumption was justified; it was not true in fact and even if he owed a duty to acquaint himself with its shortcomings they, I think, owed a duty to warn any incoming ship, whether that duty is imposed by contract or by invitation. It may well be that it is the duty of a pilot to acquaint himself with all the conditions of a port which are reasonably within his acquirement. In the present case I doubt whether he was able of himself to ascertain all the facts, but even if he was and did not do so I should hold the harbour authority at fault… In my view, it was their duty to the ship, even if they owed none to the pilot… to see that the pilot which she was compelled to take and the official whose duty it was to direct her to a particular port had full information of the conditions with which she would meet. For these reasons… I should hold that the harbour authority were guilty of negligence."

80. The decision in the *Workington Harbour* case seems to me to provide strong support for the case made by the plaintiffs that, at common law, a harbour company was treated as an occupier of the entrance to a harbour and thus owed a duty to warn of dangers and also a duty to keep abreast of the state of safety of its own harbour. However, in response, the port company has sought to rely on the decision of Langton J. in *The Neptun* [1937] P 21. In that case, the court held that a buoyage and beaconage authority was not liable to the owners of the steamship *"Neptun"* when it grounded in a navigable channel in the Humber. The owners claimed that it was the duty of the defendants, as the buoyage and beaconage authority to place lightships and/or buoys in such positions as would indicate to vessels where the deep water

channels lay. The ship owners contended that the master of the vessel had relied on a tide board showing the tide was about high water and on the soundings set out in a plan published by the defendants. On that basis, a calculation was made by the master that there would be a depth of water of not less than sixteen feet, six inches which would be sufficient for the vessel which had a draught of fifteen feet, two inches. At p. 31, Langton J. held that, although the defendants were not in the same position as a harbour authority, their duty was analogous to that of a harbour authority. He said:-

> *"Once it is established that they are an authority with power to take dues, which they have exercised in the particular case under consideration, I cannot see that their consequent legal duty is any different in quality to that of a harbour authority or any other public board exercising similar functions. The clearest statement of the law applicable to this case… is to be found in… St. Just Steamship Co Ltd v. Hartlepool Port and Harbour Commissioners… The case under… consideration was that of a harbour authority with a duty to make and maintain. To the extent, therefore, that a different scope of practical obligation was in contemplation, the case differs from the one which I have to consider. But the nature of the legal duty… seems to me to be precisely the same. The navigable highway of the Humber is open to the public, but the Board, by undertaking the duties of the buoyage and beaconage authority and taking dues from vessels using the highway, enter into… a special relation… It cannot be stated exactly as being a relation of invitor and invitee, since it is difficult to imagine the Board extending to the public an invitation to use the highway which… is already their legal right. Nevertheless, as Lord Wright points out, the common law duty is the same as that owed by an invitor to an invitee, and it is not necessary to invent any particular single term to indicate*

the relationship between a public custodian and an individual who pays for the use of the work performed by such a custodian… In the circumstances the legal duty imposed on the Board seems to be no more and no less than that laid down… in Mersey Docks and Harbour Board Trustees v. Gibbs…"

81. Langton J. came to the conclusion, on the facts, that there was no breach of the *Mersey Docks* duty. At p. 35, he explained the position as follows:-

"It was… not disputed that these channels can change their character altogether in the course of a single month. Indeed the charts before me show that some of the very points where the best water was available on June 27 were points of danger showing dry soundings on May 27. In a very short while after the disaster which befell the Neptun the whole channel changed from the Yorkshire to the Lincolnshire side of the river… In a channel showing such bewildering mutability it seems obvious that not only quick decisions but speedy action must be imperative, and on the day in question when hasty action was suggested, such changes had taken place that it had been necessary to take a fresh set of soundings over practically the whole of the… channel and to decide upon the evidence thereby obtained whether to move, where to move, and when to move, the respective lightships… For my part I cannot see that the officials of the Board who were responsible for the work of June 26, 27, and 28, could possibly have acted with any greater deliberation… than they did when one bears in mind the imperative necessity of dispatch."

82. Langton J. also rejected the ship owners' case insofar as it sought to rely on an alleged representation or warranty which the ship owners suggested had been given in the charts and in the notice to mariners. At p. 38, Langton J. dealt with this aspect of the case in the following terms:-

> *"These notices were explained by the Board's officials as being issued on occasions when a bank of sand had been observed across the whole of the navigable channel constituting, as they saw it, a bar or obstruction. I am quite unable to see how the publication of these notices, either taken alone or in conjunction with the information conveyed upon the charts, can be taken to be a representation that a minimum of three feet existed in the channels, which are quite undefined as regards their lateral extent, on any given day. I can quite believe that because the Board have worked industriously throughout their whole legal life to supply a channel containing not less than a three feet minimum the idea has grown up that the three feet is always there. It may even be conceded that this idea has been fortified by the issue of notices at times when a bar of one foot from side to side of these undefined channels has been perceived. But in order to make the Board responsible for the results of the growth of such ideas it would require some far more tangible representation upon their part as to the existence of a minimum depth than can be deduced from these shadowy implications."*

83. The plaintiffs have sought to distinguish the decision in *The Neptun* on the basis of the criticism made of it in *Mandaraka-Sheppard*. At p. 697, the author suggests that the *"correctness of this decision may be doubtful today, particularly because of the extra responsibilities imposed on ports to implement risk assessment practices to prevent risks arising from misinformation and old charts"*. They have also sought to distinguish it on the facts in that here, in contrast to *The Neptun*, there was a specific representation made (so the plaintiffs contend) by the harbour master as to the draught of the vessel or as to the available depth at the bar. In due course, it will be necessary for me to reach a conclusion in relation the dispute between the parties

as to what was said by the Harbour Master. That issue aside, I do not believe that the criticisms which have been made by the plaintiffs of the decision in *The Neptun* are justified. It seems to me that the decision does no more than to apply the pre-existing legal principles developed in the context of harbour authorities to a buoyage and beaconage authority. In essence, Langton J. took the view that the authority had done all that it reasonable could in the circumstances. The case therefore highlights that the duties of a body such as a harbour authority are not absolute. They depend on what is reasonable. On the other hand, it is noteworthy that Langton J. considered that the position of the parties there was analogous to a relationship of invitor and invitee. Thus, the decision does not undermine the case made by the plaintiffs on the law that a harbour authority should be considered to be an occupier of premises in respect of the entrance to a harbour.

The principles to be drawn from the UK authorities

84. I do not believe that it is necessary, for present purposes, to summarise all of the principles which emerge from the UK authorities. As noted in para. 70 above, the review of the UK authorities was undertaken by me in order to determine whether, prior to the enactment of the 1995 Act in Ireland, there was any basis to conclude that a harbour authority should be considered to constitute an *"occupier"* of *"premises"* for the purposes of the application of the common principles governing occupiers' liability. In particular, I was concerned to establish whether a harbour authority would have been regarded, prior to 1995, as an *"occupier"* of *"premises"* in so far as the navigable approaches to a harbour are concerned. In my view, the case law discussed above establishes very clearly that, prior to statutory regulation of occupiers' liability, the common law principles relating to occupiers' liability were applied by the courts

to harbour authorities and that, for this purpose, the duty applied not solely in relation to the area of a harbour in the immediate vicinity of docks constructed by the relevant harbour authority but also to the outer approaches of the harbour. It seems to me that the view expressed by *Marsden & Gault* in the footnote quoted in para. 69 above succinctly summarises the position. While every case turns, to some extent on its specific facts, a general principle emerges from the case law to the effect that, for the purposes of occupiers' liability, a harbour authority was regarded as an invitor and a ship owner using a harbour operated by such authority was regarded as an invitee. The duty owed by the harbour authority, as invitor, to the ship owner, as invitee, was, at minimum, a duty to take reasonable care that those using the harbour may navigate it without danger to their lives or property. That principle emerges from the decision in *Parnaby v. Lancaster Canal Company* and the subsequent decision of the House of Lords in *Mersey Docks*. I appreciate that, for lawyers used to dealing with occupiers' liability in the context of locations on dry land, it may appear unlikely that the approaches to a harbour could be considered to be a *"premises"* for the purposes of the law of occupiers' liability. When the topic of occupiers' liability is raised, many lawyers tend to think of situations, such as that encountered in *Indermaur v. Dames,* of a danger existing on either manmade or physical premises on land – such as the unfenced ventilation shaft in the sugar refinery operated by Mr. Dames into which Mr. Indermaur fell while attending to works of repair on the premises. However, as noted in para. 72 above, the decision in *Indermaur v. Dames* postdates the decisions, in the context of harbour authorities, in *Parnaby v. Lancaster Canal Company* and of the House of Lords in the *Mersey Docks* case. Those decisions clearly demonstrate that similar principles apply to harbours.

85. While the decisions in *Mersey Docks* and in *Parnaby* were concerned with the liability of harbour authorities in respect of facilities constructed by those authorities, the subsequent decision of the House of Lords in *Anchor Line (Henderson Brothers) Limited v. Dundee Harbour Trustees* (considered in para. 64 above) shows that the same principles also apply in the context of the approaches to a harbour. This is reinforced by the view subsequently taken by the House of Lords in *Workington Harbour and Docks Board v. Towerfield* (discussed in para. 76 above). Both of these cases were concerned with dangers that existed at the mouth or entrance of the relevant harbour. In this context, it is important to bear in mind, that although there are frequent references in the decision of the House of Lords in the *Workington Harbour* case to *"negligence"* on the part of the harbour authority, the House of Lords was not speaking of negligence in the way in which that is understood in the law of tort following the decision in *Donoghue v. Stevenson* [1932] A.C. 562. As the head note in the official report makes clear, the case made against the harbour authority in the *Workington Harbour* case was based on the relationship of invitor and invitee. Thus, at p. 153, Lord Morton explained the rationale for the finding of negligence on the part of the harbour authority in the following terms:-

> *"I think that the board cannot fairly be held liable for failing to keep the channel properly dredged, having regard to war-time difficulties and to the other attendant circumstances. I am, however, of opinion that it was the duty of the board to ascertain by proper and regular soundings the approximate position, shape and extent of the banks which encroached upon the north and south sides of the channel, and to communicate this information to the master of the vessel before he entered the channel, together with the information that the dredger had not been at work on the north bank since October 9.* ***The duty***

to give this information was one which arose as between invitor and invitee.

...” (emphasis added).

86. In light of the approach taken in the *Anchor Line* and *Workington Harbour* cases, I believe that a conclusion can safely be reached that, prior to the enactment of the 1995 Act in Ireland, the common law recognised that harbour authorities had a potential liability as an occupier of the harbour facilities constructed by them and also in respect of the navigable approaches to the harbour. I appreciate that no Irish authority has been cited by the plaintiffs in support of this proposition. However, it can hardly be doubted that, if an issue of this kind had arisen in the Irish courts prior to 1995, the courts would not have followed the decisions in the *Anchor Line* and *Workington Harbour* cases which are clearly persuasive authorities which would, in my view, be accepted by an Irish court as illustrating the common law position on the issue. That does not mean that a harbour authority such as the port company here is liable as an occupier in respect of every element of the natural harbour in which its facilities are located. In the relevant extract from *Marsden & Gault* quoted in para. 69 above, it is suggested that the authority will only be the occupier of those areas which it owns and of areas over which it exercises a substantial degree of *de facto* control. In my view, the provisions of s. 11(1) of the 1996 Act are relevant in this context. As noted in para. 68 above, s. 11(1) envisages that a harbour company will exert *“control”* of its harbour and the approach channels to that harbour. That is well illustrated in the present case by the fact that the port company regularly inspects and periodically dredges the approach channels (including the area of the bar) to the port of Drogheda.

87. I have therefore come to the conclusion that, for the purposes of the law of occupiers’ liability, the port company is an occupier of premises in relation to those

areas of the port owned by it and also any area of the harbour or the approaches to the harbour over which it exerts control. This includes the area at the bar which lies across the navigable channel regularly dredged by the port company. As a consequence, it follows that the 1995 Act applies to the claim made by the third named plaintiff as owner of the vessel. Having regard to the provisions of s. 2(1) of the 1995 Act, this has the further consequence that the duties and liabilities which arise under the 1995 Act now have effect in place of the duties and liabilities which previously existed at common law.

88. The position in relation to the first and second plaintiffs is less clear. As noted above, the port company makes the case that neither of those plaintiffs could be considered to be a *"visitor"* for the purposes of the 1995 Act. Section 1(1) of the 1995 Act specifically says that a visitor is someone who is *"present on the premises"*. In my view, this is a potentially significant issue which could most conveniently be determined at the same time as the claim advanced by those plaintiffs for damages (in the event that I find that the port company has an exposure to the third named plaintiff such as to require damages to be assessed). In my view, it is an issue that would require significantly more submissions on both sides. While I find it difficult to see how the first and second named plaintiffs could bring themselves within the definition of *"visitor"* for the purposes of the 1995 Act, I note that in the *Mersey Docks* case, the claim of the owner of the cargo of the ship was treated in the same way as the claim of the owner of the ship itself. Thus, further argument would need to be addressed to the issue as to whether there are common law duties owed by the port company to either the first or second named plaintiffs. If neither of those plaintiffs are *"visitors"* or other entrants for the purposes of the 1995 Act, the common law duties would not be disapplied by s.2 (1) of the 1995 Act and would continue to apply. I will defer making

any decision on this aspect of the case and I will invite both sides to address this issue in the event that it becomes necessary to assess quantum in this case. It seems to me that all issues in relation to the first and second named plaintiffs can most conveniently be addressed at that point.

The application of the 1995 Act

89. The relevant duty owed by an occupier of premises within the meaning of the 1995 Act is set out in s. 3. In the first place, s. 3(1) provides that an occupier of premises owes a duty of care described as *"the common duty of care"* towards a visitor except insofar as the occupier extends, restricts, modifies or excludes that duty in accordance with s. 5. Section 5(2)(a) provides that an occupier may either by express agreement or by notice restrict, modify or exclude the duty owed to visitors under s. 3 provided that such a restriction, modification or exclusion is reasonable in all the circumstances and, insofar as the occupier relied on a notice rather than an express agreement, the occupier must take reasonable steps to bring the notice to the attention of the visitor. In turn, s. 5(5) makes clear that a warning, without more, is not to be treated as absolving the occupier from liability unless *"in all the circumstances, it was enough to enable the visitor, by having regard to the warning, to avoid the injury or damage so caused"*.

90. Where the common duty of care applicable under s. 3(1) has not been the subject of a notice or express agreement under s. 5, the relevant duty is defined in s. 3(2) as meaning *"a duty to take such care as is reasonable in all the circumstances (having regard to the care which a visitor may reasonably be expected to take for his or her own safety…) to ensure that a visitor to the premises does not suffer injury or damage by reason of any danger existing thereon"*.

91. A number of aspects of the common duty of care should be noted:-

(a) In the first place, the duty is not an absolute one. As the language of s. 3(2) makes clear, the duty is to take such care as is reasonable in all the circumstances;

(b) In deciding what is *"reasonable in all the circumstances"*, the court will also have regard to the care which a visitor may reasonably be expected to take for his or her own safety. That is an important factor in the present case given the case made on behalf of the port company that the master, as a skilled navigator, was responsible for the safe navigation of the vessel. Equally, the presence of the pilot is relevant in this context. As the *Anchor Line* case makes clear, the invitee's obligation to take care for his or her own safety was a very relevant factor even prior to the intervention of statute. In the present case, significant issues arise in so far as the decisions taken by those in charge of the vessel are concerned, having regard to the information available to them in respect of matters such as the state of the tide at the time of departure and having regard also to other dynamic features which are relevant in the context of the care which a user of the port may be expected to take for the safety of a ship navigating the bar;

(c) The duty of the occupier is limited to ensuring that a visitor does not suffer injury or damage by reason of any danger existing on the *"premises"*. As noted above, this is not an absolute duty. The obligation is to take such care as is reasonable in all the circumstances. In this context, the port company strongly urges that one of the circumstances which must be taken into account is the fact that the

place where the grounding occurred was not immediately adjacent to a quay or a berth. Instead, the grounding occurred in a channel where conditions are continuously changing. Counsel for the port company submitted that this was an important aspect of the backdrop that must be taken into account when considering whether it is reasonable to expect that the port company could have taken any steps to ensure that the vessel did not suffer damage by reason of the conditions existing at the bar at the time of the grounding. I have reservations about that submission. While I accept that all of the circumstances must be taken into account, the English cases clearly establish that a harbour authority has obligations as an occupier of the navigable approaches to a harbour to ships using those approaches. While, of course, there may be particular circumstances (such as weather conditions or the state of the sea) that may make it reasonable, for example, for a harbour authority not to undertake depth surveys for as long as those circumstances exist, the harbour authority may have to take alternative steps in such circumstances to ensure that ships using its harbour do not suffer injury by reason of any danger (such as an accretion of silt) in the navigable approach channel of its harbour. For instance, depending on the circumstances, a harbour authority may have a duty to stop a ship departing from a port if the authority is unable to estimate that there should be sufficient depth of water available for that purpose. These are issues that will have to be examined in due course in this judgment.

92. It will be necessary to make all necessary findings of fact based on the evidence before any determination can be made as to whether the port company failed in its duty as occupier in so far as the grounding of the vessel is concerned. At this point, it is sufficient to record that, as outlined in paras. 113 to 127 below, a wide variety of information was available to mariners about the port of Drogheda in which the existence of the bar was clearly highlighted and the port company also provided a number of aids to mariners at the port to assist them in assessing the likely depth of water available including tidal predictions and also, more importantly, tidal gauges which showed the actual state of the tide in real time.

Is there any alternative cause of action available other than under the 1995 Act?

93. While s. 2(1) of the 1995 Act has the effect of displacing the common law duties and liabilities which previously attached to occupiers of premises in respect of dangers existing on their premises, the plaintiffs have also sought to rely on representations allegedly made by the Harbour Master regarding the maximum sailing draught of the vessel and they also allege that there was a failure to have any proper regard to the tides and a failure to take any or any proper soundings. All of these allegations are contested by the port company and it will therefore be essential to consider all of the relevant evidence in relation to those issues and make the necessary findings of fact. It has long been accepted that the obligation owed by an occupier can subsist side by side with a common law duty of care derived from something other than the occupation of premises. The position was explained as follows by Lord Gardiner L.C. in *Commissioner for Railways v. McDermott* [1967] 1 A.C. 169 at pp. 186-187:-

> *"The basic principle… is that occupation of premises is a ground of liability and is not a ground of exemption from liability. It is a ground of liability because it gives some control over a knowledge of the state of the premises, and it is natural and right that the occupier should have some degree of responsibility for the safety of persons entering his premises with his permission… At common law the measure of that duty is a limited one… But that is no exemption from any other duty of care which may arise from other elements in the situation creating an additional relationship between the two persons concerned. Theoretically in such a situation there are two duties of care existing concurrently, neither displacing the other. A plaintiff could successfully sue for breaches of either or both of the duties if it had committed such breaches…"*

94. Similarly, *McMahon & Binchy, op. cit.* at para. 12.140, also observe that s. 2(1) professes to affect only the rules relating to dangers due to the state of the premises. Against that backdrop, I have considered whether the case made by the plaintiffs in relation to the alleged advice given by the harbour master combined with the case made in relation to the alleged failure to take soundings or to take the tides into account could be said to give rise to a separate basis upon which to assert a breach of duty on the part of the port company over and above the case made under the 1995 Act. It should be recalled in this context that, as outlined in para. 79 above, Lord Porter in the *Workington Harbour* case suggested that a failure to use due diligence to ascertain facts with which the harbour authority should have been acquainted, constituted a second ground for the finding of liability against the harbour authority there. I am not, however, convinced that the representation alleged to have been made by the harbour master or the alleged failures to take appropriate soundings

and to take the tides into account constitute a separate basis for the plaintiffs' case against the port company here. At their heart, those allegations relate to the existence of a danger at the bar (namely the extent of siltation existing there) such that any advice given by the harbour master in relation to the depth of water available (or the maximum sailing draught of the vessel having regard to that depth) and any failure on the port company's part to carry out soundings or to take account of the tides all fall within the ambit of the port company's obligations under the 1995 Act to take such care as was reasonable in the circumstances to ensure that the vessel did not suffer injury or damage by reason of the danger existing at the bar. This seems to me to be consistent with the approach taken by the House of Lords in the *Workington Harbour* case where both limbs of the negligence identified by Lord Porter were treated as elements of occupiers' liability. In these circumstances, I propose to consider these issues in the context of the case made under the 1995 Act rather than by reference to any separate common law duties. Moreover, I have not been referred to any authority to suggest that any common law duty that could be said to arise in relation to the provision of information by the harbour master or in relation to the taking of soundings or taking account of tides would give rise to a more extensive duty than that which would arise, in any event, under s. 3(2) of the 1995 Act. If anything, even if such a case could be made, it might be more difficult to sustain a case based on the existence of such a duty. The establishment of such a duty would be subject to the test laid down by the Supreme Court in *Glencar Explorations plc v. Mayo County Council (no. 2)* [2002] 1 I.R. 84 and the plaintiffs would accordingly need to demonstrate that it is just and reasonable that the duty should be imposed.

95. I will, therefore, proceed on the basis that the case made by the plaintiffs should be assessed solely by reference to the 1995 Act. That will involve a

consideration not just of the behaviour of the port company but also that of the master of the vessel and the pilot. As noted earlier, the court is required under the 1995 Act to consider the position of both occupier and visitor. The duty of the former is to take such care as is reasonable in all of the circumstances having regard to the care which the latter may reasonably be expected to take for his or her own safety. Thus, the behaviour of the visitor is very relevant. The type of matters that may be relevant in this context are addressed in more detail in paras. 160 to 161 below. Thus, subject to addressing the legal principles in relation to pilotage, I will proceed to make the necessary findings of fact with a view to determining whether, on the basis of those facts, the plaintiffs have established that there has been a breach by the port company of its obligations as an occupier of premises under the 1995 Act.

Compulsory pilotage

96. Before proceeding further, it is necessary to address the law in relation to compulsory pilotage. The port company strongly makes the case that, by virtue of s. 63 of the 1996 Act, the pilot is to be treated as the agent of the plaintiffs in relation to the navigation of the vessel. The provisions of s. 63 of the 1996 Act have already been set out in para. 52 above. By its terms, s.63 provides that the fact that a ship is under compulsory pilotage will not affect any liability of the owner or master of the ship for any loss or damage caused by the ship or by the manner in which it is navigated. The effect of s. 63 is to reaffirm the abolition of the distinction which had existed prior to the enactment of the Pilotage Act 1915 between the liability of a ship owner for the defaults of a pilot engaged on a voluntary basis (who the law treated as the servant of the ship owner) and a compulsory pilot (who the law had treated differently). In *Thom v. J & P Hutchinson Ltd.* 1925 S.C. 386, at p. 393, Lord Cullen confirmed that a pilot

employed on a voluntary basis was treated as the servant of the owner: *"He is employed to take up pro tempore the captain's function of navigator in circumstances where special local knowledge is required."*. That statement was subsequently endorsed by Lord Normand in the House of Lords in the *Workington Harbour* case. A similar view was also taken by the High Court of Australia in *Oceanic Crest Shipping Co. v. Pilbara Harbour Services Pty. Ltd.* (1986) 160 C.L.R. 626. The *Workington Harbour* case also established that the effect of s. 15 of the 1915 Act is to likewise make the ship owner responsible for the defaults of a compulsory pilot and to treat such a pilot in the same way as one who had been engaged voluntarily.

97. Although s. 63 might not appear, at first sight, to expressly address damage caused to the ship itself (as opposed to damage caused by the ship) while under compulsory pilotage, it has been held, in the context if s. 15 of the 1915 Act, that the same approach is to be taken to damage caused to a ship under compulsory pilotage. In the *Workington Harbour* case, Lord Porter, at pp. 133-134, drew attention to the words *"the owner… of a vessel* [under compulsory pilotage] *is answerable for any … damage caused … by any fault in the navigation of the vessel"* in s. 15(1) and said that *"'answerable' … simply means responsible and a shipowner who through a compulsory pilot is responsible for damage to his own ship as well as for injury to the property of another. It follows that he neither pays for the damage which has been done to the other nor can he recover his own damage …"*.

98. In my view, the approach taken by Lord Porter in the *Workington Harbours* case applies equally to s. 63 of the 2006 Act. By its terms, it covers not only the liability of the ship owner for loss or damage caused by the ship but also any loss or damage *"by the manner in which it is navigated"*. The latter words are not limited to damage caused by the ship. They are sufficiently broad to embrace any damage

caused by the manner in which a ship, under compulsory pilotage, is navigated. They accordingly cover damage caused to the ship itself as a consequence of the manner in which the ship is navigated by the pilot. Thus, it is not open to the plaintiffs here to argue that the damage done to the vessel takes the matter out of the ambit of s. 63. If the damage to the vessel arose as a consequence of a failure or default of the pilot, the third named plaintiff will, in law, be treated as the party responsible for any such failure or default.

99. It might, nonetheless, be thought that there is at least an arguable basis for the claim made by the plaintiffs in para. (o) of the particulars to para. 18 of the statement of claim that a cause of action would lie against the port company, in its capacity as the statutory licensing authority for pilots in the port of Drogheda, in respect of a failure to provide safe pilotage services to vessels. Such a cause of action is not expressly addressed in s. 63 of the 2006 Act and it might be thought that an argument could accordingly be made that such a cause of action is not caught by s. 63. However, it is well settled that, while harbour authorities have the function of licensing pilots, this does not, as such, make them liable for pilots' negligence.

100. It is also well settled that pilots are independent professionals, even where they are licensed by a harbour authority such as the port company here. The relevant principle was explained as follows by Lord Loreburn in *Fowles v. Eastern and Australian Steamship Co. Ltd.* [1916] 2 A.C. 556, at pp 562-563, where he said that the statutes providing for the licensing of pilots did not alter the pre-existing common law position that a pilot *"... must be regarded as an independent professional ... in discharging ...skilled duties. If it had been intended to alter this old and familiar status, it is to be supposed that the legislature would have done it more explicitly ..."*. That principle has been reaffirmed more recently by the House of Lords in *Esso*

Petroleum Co. Ltd. v. Hall Russell & Co. Ltd. [1989] 1 A.C. 643. There is no reason to suppose that the position is any different under Irish law.

101. Having regard to the principles discussed in paras. 99 to 100 above, the fact that the pilot was licensed by the port company does not, without more, give rise to any liability on the port company's part for any default on his part. There is accordingly no sustainable basis for the case made by the plaintiffs to the effect that the port company owed a duty of care to the plaintiffs to provide safe pilotage services to the vessel. For completeness, I should make clear that, at this point in my judgment, I do not seek to suggest that there was any failing or default on the part of the pilot. That is an issue that can only be addressed after I have made all necessary findings of fact (including issues of causation) which I address in the next part of this judgment.

Examination of the evidence

102. It is now necessary to examine the evidence in more detail and to make findings in relation to a number of distinct issues ranging from less controversial questions (such as the relevant characteristics of the vessel) to strongly disputed issues (such as the cause of the grounding of the vessel). This will involve a more detailed consideration of the evidence than the brief summary in paras. 4 to 25 above.

The relevant characteristics of the vessel

103. Some of the details in relation to the vessel have already been described in paras. 4 to 5 above and will not be repeated here. It is, however, important to recall that the vessel has a winter draught of 6.23 metres and that the freshwater allowance (while the vessel sits in freshwater) is 0.14 metres. According to the Minimum Safe

Manning Document issued by the Netherlands Ministry of Infrastructure and Environment (as the competent authority for ships registered in the Netherlands), the vessel requires a crew of 6 comprising the master, the chief mate, the chief engineer, two deck ratings and a further rating.

104. However, according to Captain Traktatov, the vessel was, in fact, manned by a crew of seven, at the time of the grounding, comprising the master, a chief officer, a second officer, the chief engineer, a deck crew of two and a cook. Captain Traktatov qualified as a master in 2013. His witness statement (as delivered in advance of the trial) had stated that he qualified in 2005. That was corrected together with more than 12 other errors when Captain Traktatov came to give his evidence.

105. Captain Traktatov commenced service with the plaintiffs in January, 2015. He holds a certificate of competency from the Russian Federation as a master mariner for ships of 3,000 gross tonnage which includes the vessel in issue in these proceedings The Russian certificate has, in turn, been accepted by the Netherlands authorities for the purposes of acting as master on vessels registered in the Netherlands.

106. The vessel is equipped with an electronic chart display and information system (*"ECDIS"*) which is a computer based information system that can be used as an alternative to paper charts. The ECDIS also provided a useful record in real time of the course taken by the vessel on the voyage out of Drogheda and at the moment of the grounding. The ECDIS record of that voyage can be displayed graphically and was shown in the course of the trial. It was also reviewed by the experts who gave evidence in the case and also by me for the purposes of this judgment.

107. Important information in respect of the vessel is also available on the bridge where the Pilot Card and Wheelhouse Poster are displayed. These are intended to provide vessel specific information to those on the bridge. This includes pilots who

may be unfamiliar with the features of the particular vessel boarded by them. As Captain Traktatov confirmed under cross-examination on Day 3, the purpose of the Wheelhouse Poster is to provide detailed information about manoeuvring characteristics of the vessel. As a report from Belkoned Marine Service b.v. of 17th January, 2017 shows, the poster was prepared to record the results of speed and manoeuvring trials on first launch of the vessel.

108. Among the information provided in the poster is information in relation to the manner in which the draught of the loaded vessel will increase depending on speed. As previously noted, this phenomenon is known as *"squat"* which arises as the hull of a vessel sinks deeper as it moves through a body of water. The poster indicates that, in the case of an under keel clearance of 30%, the draught of the vessel is estimated to increase by 0.10 metres at a speed of 4 knots; this increases to 0.42 metres at a speed of 8 knots. If the under keel clearance is 10%, the draught is estimated to increase by 0.11 metres at 4 knots, 0.26 metres at 6 knots and 0.48 metres at 8 knots.

109. Under cross-examination on Day 4, Captain John Conlon, a marine superintendent employed by the plaintiffs, confirmed that the squat of a vessel becomes more pronounced where the under keel clearance is low. In particular, he confirmed that where (as in the port of Drogheda) the relevant under keel clearance is set at 5% for a vessel of this size, the degree of squat will be greater than the figures provided in the poster. It should be noted, at this point, that, although it emerged in the evidence that the plaintiffs did not have a specific policy as to a minimum under keel clearance to be maintained by their vessels, it was clear from the evidence that they sought to comply with any local requirements on such clearance. It was accepted by Captain McJury (the expert called by the port company) that there is no express requirement under the International Management System (*"ISM"*) to have such a

policy and he did not go so far as to suggest that its absence constituted non-compliance with the ISM code. In the case of the port of Drogheda, Captain Donnelly gave evidence that, for vessels up to 100 metres, under keel clearance should be calculated at 5% of draught. As described in more detail below, this is consistent with the terms of the port company's Pilotage Standard Operating Procedures (*"the Pilotage SOPs"*) at p. 10. It was also confirmed in the evidence that this requirement can also be articulated as requiring a minimum under keel clearance of 0.30 metres for vessels of this size.

110. The Wheelhouse Poster also provides details of the effect of heel. This refers to the temporary inclination of a ship which could be caused either by the way in which a ship is loaded or by external forces such as wind or waves or a turning motion. For present purposes, what is potentially relevant is heeling which may occur by reason of the effect of wind or waves. A heel angle of 2 degrees is estimated to give rise to an increase in the draft of 0.24 metres. Under cross-examination, Captain Conlon's evidence was that a heel angle of 2 degrees *"is a very big angle to have for an angle of heel".* He confirmed that a vessel could heel if it rolled or pitched (which he described as a *"see saw"* effect). However, he suggested that a vessel is unlikely to heel in a river and he also highlighted the evidence of Captain Traktatov that the vessel was not rolling immediately before the grounding. That is an issue to which I will return at a later point in these findings. It is sufficient to note for the moment that, as the Wheelhouse Poster confirms, the phenomenon of heel is capable of increasing the draught of the vessel and that pitching can also have a similar effect.

111. Another relevant piece of information that emerges from the Wheelhouse Poster is the distance the vessel is likely to travel on stopping the engine and in the event of a *"crash stop"* (which I understand relates to circumstances where the engine

is placed in the full astern mode in order to avoid a crash) which formed part of the sea trials before the launch. The poster suggests that the vessel, when loaded, will stop within 99 seconds when the vessel is on slow speed, 137 seconds at half speed and 154 seconds at full speed. While Captain Conlon stressed that the tests carried out prior to launch of a vessel are done always in ballast rather than loaded, the estimates given in the poster are nonetheless a relevant factor to be borne in mind when considering the circumstances of the grounding (as explained further below).

112. It should also be noted that the plaintiffs' standing orders addressed the issue of navigation of their vessels while there is a pilot on board. Paragraph 4.11 B required the masters of their vessels to inform the pilot of a wide range of information including the draught, speed and trim of the vessel. In addition, para. 4.11 A stated that the presence of a pilot on board *"does not relieve the Master and Officer of the Watch of their responsibilities for the safety and safe and proper navigation of the vessel".*

The information available to users of the port of Drogheda

113. At the time of the arrival of the vessel into the port of Drogheda, there was a large volume of material available to masters of vessels using the port and to the pilots who, as explained in paras. 96 to 99 above, are treated as the servants or agents of the owners of ships under compulsory pilotage. Moreover, the pilots are themselves repositories of special local knowledge (to paraphrase Lord Cullen in *Thom v. J & P Hutchinson Ltd.* quoted in para. 96 above). It should also be noted that, according to Captain Traktatov, this was his fourth visit to Drogheda. He had been there twice before on Arklow Shipping vessels and once on the M.V. *"Flinterhaven"* for a previous employer.

114. Captain McJury explained that ships on the Netherlands register are required to have on board all notices to mariners issued by the ports to be visited by them. For present purposes, the relevant notices are Notices to Mariners (No. 1 of 2018) and (No. 3 of 2018) issued by the port company. Under cross-examination, Captain Traktatov confirmed that, at some stage before the grounding, he had seen Notice No. 1 but he was not sure about Notice No. 3. The former expressly drew attention to all masters loading vessels of the need to allow for sufficient under keel clearance and masters were also advised to take account of the effects of squat and draught increases due to heeling, rolling or pitching when navigating in shallow waters. Notice No. 1 also stated that, when planning (*inter alia*) departure draughts, consideration should be given to the tidal predictions and the anticipated weather for the port. Furthermore, the notice also contained the warning quoted in para. 10 above that tidal conditions may be affected by the weather. The warning stated that southerly winds and low pressure may increase the level of the tide above prediction while northerly winds and high pressure may have the opposite effect.

115. Notice No. 3 highlighted the need for masters of vessels to familiarise themselves with the navigational features of the Boyne estuary from the seaward approaches to the town of Drogheda. It also identified a number of Admiralty publications to assist mariners including the Admiralty Sailing Directions mentioned in para. 10 above and the Admiralty Tide Tables 2017. The Admiralty Sailing Directions provide quite detailed information in relation to the features of the port. At p. 186, they inform mariners that the stretch of water from the river entrance to the Flogas LPG terminal (which is situated upriver from the terminal where the vessel docked) is maintained at 2.2 metres CD but this is qualified at p. 188 to the effect that the depth *"may be reduced by E gales in advance of maintenance dredging".* In

addition, p. 186 contains a caution that the maintained depths at the entrance *"are liable to change due to bad weather".* On the same page, mariners are informed that there is a tidal gauge on either side of the river *"about 6 cables upstream from its mouth".* As I understand it, 6 cables would equate to approximately 1,100 metres. However, as explained further in para. 122 below, the evidence available at the hearing puts the position of this gauge at 300 to 400 metres upriver from the bar and suggests that the gauge is situated solely on the north side of the river.

116. In common with Notice No. 1 issued by the port company, the Sailing Directions, at p. 186, warn that the tides can be affected by the direction of the wind and by barometric pressure. In particular, it is stated that the predicted heights of the tide *"are reduced by winds from the N and raised by winds from the S. Tide levels are also affected by high and low barometric pressure".*

117. In addition to the printed version of the Sailing Directions and the port company's notices and Tide Tables, the ECDIS also included a textual description for the port. Headed *"Depths",* this description states:-

> *"Maintained depths in the entrance to Drogheda are liable to change particularly after a storm event. The… navigation channel is maintained at the depths shown. Other port areas are dredged to meet operational requirements. For the latest information contact Drogheda Harbour Master."*

118. Curiously, although Notice No. 3 identified the Admiralty Tide Tables as a relevant document to consult in respect of tides, the port company also publishes its own tide tables, the relevant version for present purposes being the Drogheda Port Tide Tables 2018 (*"the Drogheda Tide Tables"*) produced for the port company by the U.K. National Oceanography Centre in Liverpool. As can be seen from the tide predictions for 13th December, 2018 (addressed further below), the predictions made

in the Drogheda and Admiralty tables do not always coincide. The Drogheda Tide Tables appear to be the tables most in use in the port. They are specifically mentioned in para. 21 of Captain Donnelly's witness statement. Furthermore, while the vessel was still in Garston, they were copied to Captain Traktatov by the plaintiffs by email dated 7th December, 2018 which also gave him his instructions for the voyage to Drogheda. They were also used by Mr. McGuinness in an email to the vessel (among others) on 10th December, 2018 in which he set out the high tide prediction for 15:03 on 13th December taken from the Drogheda Tide Tables. As recorded in para. 16 of Captain Breach's witness statement, the same prediction was used by the pilot for the purposes of the outbound voyage of the vessel on 13th December.

119. However, the Drogheda Tide Tables do not, by their terms, purport to predict the tide at the bar. By their terms, they are confined to predictions for three locations within the commercial port namely the town quays, the terminal and the Flogas LPG terminal. The terms of the *"Cautionary Note"* on the cover page of the tables confirm this. The note expressly states that the tidal predictions are for the predicted depth of water at high tide for each of these three locations. It also highlights that different depths of water apply at each location and that masters are *"strongly advised"* to seek clarification of their nominated loading or discharging berth in order to determine the safe maximum draught in advance of loading to or from the port. While counsel for the plaintiffs sought to rely on this statement to suggest that this shows that the port company had actively advised mariners to seek clarification from the port company as to draughts, I do not believe that it can be read in that way. In my view, this statement in the note simply addresses the need to seek clarification of the relevant berth in order that ships' masters can, in turn, determine the appropriate safe maximum

draught. This is especially so in circumstances where, according to the tables, the depths at high and low water in all three berthing locations differs.

120. The Drogheda Tide Tables are, nonetheless, important in that they provide tidal predictions for the terminal and they also repeat the warning contained in Notice No. 1 that weather conditions may influence tidal conditions with northerly winds having the propensity to reduce predicted depths and southerly winds having the contrary propensity. The cover page also warns that high pressure and storm events may also affect the predicted depths and that the port company *"cannot accept any responsibility for any errors, omissions or weather events which may affect these predictions".*

121. The Pilotage SOPs are also relevant. Although the Pilotage SOPs are not required to be available to masters, they govern the tasks undertaken by the pilots and are binding on the pilots who, as previously mentioned are treated as the servants or agents of the shipowner. They provide some additional information about the port. Given that the pilots are treated as servants or agents of the shipowners, the latter will be treated as being on notice of the information contained in the Pilotage SOPs. In para. 5.2, pilots are reminded that their task is to actively engage with the master so as to provide expert local knowledge (including local conditions) and experience in navigating and manoeuvring within the port. Paragraph 5.7.6 warns about the effect of heavy weather and states that additional considerations must be given to conditions at the river entrance where there are strong north easterly or south easterly winds. As previously noted, para. 6.1 deals with under keel clearance and it emphasises that the 5% allowance must be considered with *"the prevailing weather conditions and depth conditions on the bar, vessel type and manoeuvrability".* Paragraph 6.2 deals with the phenomenon of squat and warns that it reduces under keel clearance and that the

extent of squat will depend on the speed of the vessel, such that squat will be significantly reduced if a vessel is kept at half speed.

122. Paragraph 6.3 of the Pilotage SOPs identifies the difference between tidal condition and tidal predictions. It states that a difference may occur *"between the predicted, actual recorded (electronic) or observed tidal height".* At this point, it should be noted that the pilots have access to the actual state of the tide. Accordingly, at the time of boarding a vessel, they should not have to rely on tidal predictions. They have access to the visual tidal gauge located outside the port company's office on the opposite side of the river to the terminal. They also have access to the master visual gauge on the north shoreline which, according to the evidence heard by me, is about 300-400 metres upriver from the bar. Along with the harbour master, pilots have remote access by telephone to an automatic gauge which gives real time information about the level of the tide at the port company's office. On re-examination on Day 5, Captain Donnelly gave evidence that the information extracted from the auto gauge could be used to predict the level of the tide at the bar *"within 5 to 8 cm because up here we're more subject to freshwater … so the level here could be slightly higher than the level at the mouth of the river depending on the time of the tide".* This element of Captain Donnelly's evidence is considered in more detail in paras. 226 to 227 below. As explained there, notwithstanding Captain Donnelly's evidence quoted above, the level of the tide recorded at the gauge opposite the terminal is, in practice, used as a proxy for the state of the tide at the bar.

123. One further aspect of the Pilotage SOPs should be noted. Although the Drogheda Tide Tables do not purport to provide any prediction of the tide at the bar, para. 6.3 of the SOPs states that *"Drogheda Port tidal predictions give the depth of water at the bar i.e. the depth at Chart Datum plus the height of the tide at high*

water". Given the terms of the Tide Tables (as discussed in para. 119 above), I cannot see any basis for this statement in so far as it refers to the depth of water at the bar. As previously noted, the Drogheda Tide Tables do not give any prediction for the height of the tide at the bar albeit that, as observed in para. 122 above, the state of the tide at the terminal is used as a proxy for its state at the bar. However, the Admiralty Tide Tables do provide an estimate of depth at the entrance to the River Boyne. An extract of those tables was attached to the outward bound pilot's passage plan (described in para. 199 below) and it provided a prediction of 4.50 metres in respect of the high tide at the entrance at 16:08 on 13th December. When the CD height of 2.2 metres is added to that figure, it gives a predicted height of 6.70 metres at 16.08 rather than the 6.84 metres predicted by the Drogheda Tide Tables for the terminal at 15:03 on that day. The differences in terms of the height and the timing of the high tides are both potentially very relevant.

124. In addition to the information available about the port, all mariners would, of course, have ready access to detailed information from a variety of sources about the predicted weather conditions on any given day.

125. As described in paras. 114 to 123 above, there was, at the time the vessel visited Drogheda in December 2018, a significant body of information about the port available to mariners including the master of the vessel, Captain Traktatov and also to the pilots including Captain Breach. That said, while the available sources of information made clear that there could be a loss of depth at the bar as a consequence of siltation (among other factors), mariners such as Captain Traktatov have no way of knowing whether, as a matter of fact, there is such a loss of depth on any given day. They are dependent on the port company and the pilots for such information. As indicated in the ECDIS textual description with regard to depths (quoted in para. 117

above), it is necessary for mariners to consult with the harbour master for the latest information in relation to depths. This was acknowledged by the port company's expert, Captain McJury on Day 6 of the hearing. It was also acknowledged by the harbour master, Captain Donnelly, on Day 5 of the hearing albeit that, importantly, he added that he always made the latest survey information available to the pilots as soon as he received it. Thus, for example, as described in para. 12 above, the results of the Ceeducer survey undertaken on 10th December, 2018 were emailed to the pilots at 18:24 on the same day. In his evidence on Day 6, Captain Breach confirmed that he had received the results of that survey on that day.

126. As noted earlier, the results of the Ceeducer survey showed a loss of depth of 0.30 metres on the southern side of the channel at the bar as of 10th December, 2018. As described further below, the results of that survey were reassessed by Captain Donnelly in the course of the next two days when he estimated (without the benefit of a further survey) that there could be a further loss of depth of 0.20 metres as a consequence of the weather forecast for the night of 12th December, 2018. The circumstances in which that information was conveyed to the vessel's agent is a matter in controversy between the parties and is addressed in more detail below. At this point, it is sufficient to note that, at minimum, the vessel's agent was informed by the harbour master prior to the departure of the vessel that he anticipated a further loss of depth at the bar of 0.20 metres in addition to that shown on the 10th December survey. Furthermore, it should be noted that Captain Breach on Day 6 of the hearing, also confirmed that Captain Donnelly had called him to tell him of the additional reduction in depth of 0.20 metres. As noted above, the pilot is the agent of the vessel for this purpose. Thus, through two separate sources (the conversation with the ship's

agent and the call to the pilot) those in charge of the vessel were made aware of the harbour master's assessment of a further 0.20 metres loss of depth.

127. Accordingly, the information available to the master and the pilot about conditions in the port as of 13th December, 2018 included all of the material outlined in paras. 114 to 124 above together with the additional information and assessment as to loss of depth described in para. 126 above. It will be important to keep this in mind in considering the actions of the parties in relation to the decision to sail on 13th December. Before addressing that issue, it is necessary to also have regard to some aspects of the events relating to the inward voyage of the vessel to Drogheda and the instructions given to Captain Traktatov and also to the interactions between the vessel's local agent in Drogheda and the harbour master (about which considerable controversy arises).

The inward voyage and the instructions given to Captain Traktatov

128. In a series of emails sent on 7th December, 2018, the plaintiffs gave instructions in relation to the voyage of the vessel to Drogheda to load a cargo of cement for Northfleet on behalf Irish Cement. The first email was sent at 16:14 on that day to K C Shipping nominating them as agents and directing them to make all necessary arrangements for the arrival of the vessel in Drogheda. The next email was sent at 16.32 on that day to Captain Traktatov directing him to take the vessel to Drogheda to load the cargo. The port company has highlighted certain aspects of this email and has submitted that it demonstrates that the plaintiffs were putting pressure on Captain Traktatov to load up to the maximum draught and that they were prioritising their commercial concerns over the interests of safe navigation of the vessel. In particular, the port company drew attention to the way in which Captain

Traktatov was instructed to load the vessel *"always up to the max. permissible departure draft Drogheda".* The port company has emphasised the lack of any reference to a safe departure draught and has contrasted this with an email sent a little later on the same day at 16:49 by the first plaintiff to the second plaintiff which spoke of the vessel being loaded *"upto (sic) max permissable (sic)* ***safe*** *sailing draft Drogheda depending on the tides"* (emphasis added). The port company has also highlighted the further instruction given to Captain Traktatov in the email to him in which he was told that, with regard to intake: *"Please take as much as possible. Take into account the max departure draft from Drogheda. Tides are attached".* For completeness, it should be noted that the Drogheda Tide Tables 2018 were attached to that email.

129. The port company argued that the instructions given to Captain Traktatov clearly demonstrated that he was given no discretion in respect of the loading of the vessel. It was further submitted that this was compounded by the failure of the plaintiffs to maintain an under keel clearance policy for their ships including the vessel. While, this issue does not arise specifically in relation to the inward voyage, the case made by the port company on the issue is bound up with the instructions given to the master of the vessel and it is therefore convenient to address it in this part of the judgment.

130. In their closing submissions, the port company went so far as to contend that *"best practice"* required that shipowners should put such an under keel clearance policy in place and, although not pleaded, they also sought to invoke the requirement in Regulation 3 of Chapter IX of the SOLAS Convention (applied in Ireland by s. 2(1) of the Merchant Shipping Act 1981) that a sea-going ship of the size of the vessel was required to have an ISM Code in place. They argued that they did not have to

expressly invoke a provision of law in their pleadings and that it was *"reasonable to expect guidance and provision for avoiding a grounding by maintaining certain UKC"* in circumstances where the ISM Code is broadly drafted and where the plaintiffs' ships are regularly navigating in shallow ports.

131. In my view, the port company is mistaken in relation to this element of its defence. There is no sufficient evidence before the court to permit a finding to be made that the plaintiffs were placing their commercial concerns above issues of safety or that they had put pressure on Captain Traktatov to load in an unsafe manner or to leave him with no discretion as to how far the vessel could be safely loaded. It is, of course, entirely understandable that the plaintiffs would wish to load in a manner intended to maximise their commercial return by loading to the maximum permissible level but there is no evidential basis to conclude that, in doing so, they intended that this should take precedence over safety. Captain Traktatov was clear in his evidence that he held responsibility for the safety of the vessel at all times and that *"nobody can press me"* in that regard. Although he was cross-examined to some extent in relation to the instructions given to him in the email of 7th December, 2018, he was not pressed strongly on the issue and his evidence on this aspect of the case was not undermined.

132. Moreover, when the absence of any reference in those instructions to a safe departure draft was put to the plaintiffs' marine superintendent, Captain John Conlon, on Day 4 of the hearing, his answer was that: *"there's no such thing as a permissible draught, in my opinion, that isn't safe. If it isn't safe then it's not a permissible draft"*. In my view, that is how the instructions would reasonably be understood by the master of a vessel. I do not see anything in the instructions given to Captain Traktatov

that can reasonably be construed as putting pressure on him to load the vessel to an unsafe extent.

133. Nor can I see any basis to suggest that, even on the assumption that the allegation was sufficiently pleaded, the plaintiffs were in breach of their obligations under the ISM Code in relation to the failure to maintain an under keel clearance policy for their vessels. In para. 67 of its written closing submissions, the port company correctly acknowledged that there is no express obligation imposed by the ISM Code to that effect. In my view, the port company has wholly failed to establish that there is an implied obligation to that effect. Its submissions on this issue fall far short of establishing any such obligation. In attempting to build such a case, the port company has sought to rely on certain aspects of the evidence given by its expert Captain McJury and on a conclusion reached by the Marine Casualty Investigation Board (*"MCIB"*) in its report (No. 8 of 2012) published on 17th September, 2012 into the grounding of the *"Arklow Raider"* at the entrance to Drogheda port on 16th November, 2010. Contrary to the port company's submission, neither the evidence of Captain McJury (considered as a whole) nor the MCIB report support such a case. Under cross-examination on Day 6, Captain McJury acknowledged that there is no requirement in the ISM Code that a shipowner must have an under keel clearance policy. It was also put to him that he did not point to any non-compliance with the code in relation to the vessel and he confirmed that this is correct. In so far as the MCIB report is concerned, the port company has sought to rely on the recommendation in para. 7.1 but all that says is that all masters, pilots and harbour masters should be aware of the effect that rolling of a vessel has in increasing the draught of a vessel and should take this into account in determining a safe under keel clearance for a vessel. It is thus treated as an operational issue to be taken into account

by a master, a pilot or a harbour master. No suggestion is made by the MCIB that it should be determined as a matter of policy by shipowners.

134. Nonetheless, the recommendation made by the MCIB has some resonance in this case in so far as the preparations for the outward voyage are concerned. In due course, I will have to consider whether, in determining a safe departure draught for the vessel, consideration should have been given to the possibility of rolling increasing the draught and requiring that greater under keel clearance should have been provided for.

135. To return to the inward voyage, Captain Traktatov confirmed that he received a copy of the Drogheda Tide Tables prior to the vessel's arrival in Drogheda. As noted previously, they were attached to the email of 7th December, 2018 instructing him to take the vessel to Drogheda. Under cross-examination, he also confirmed that he was given a copy of Notice to Mariners (No. 1 of 2018) but he was unsure whether he received it prior to the vessel's arrival in Drogheda or whether he was given it by the agent after the vessel berthed at the terminal. As noted in para. 114 above, he was also unsure as to whether he received a copy of Notice to Mariners (No. 3 of 2018). However, he confirmed that he had read the electronic version of the relevant Admiralty Sailing Directions described in paras. 10 and 115 to 117 above. His evidence was that he had done so when the vessel was leaving Garston and heading for Drogheda. Ultimately, however, whether Captain Traktatov had read these materials or not, I take the view that the plaintiffs must be taken to be on notice of all of these documents. As previously noted, Captain McJury gave evidence (and this was uncontested) that, under the law of the Netherlands, the vessel was required to have all notices to mariners issued by any ports visited by the vessel. Even if that requirement did not exist, I do not believe that any competent master could plausibly

suggest that he or she was not under an obligation to study any notices or other information published by a port authority or any extraneous material cited in such notices (which includes in the present case the relevant Admiralty Sailing Directions) relating to the conditions to be found in any port visited by a vessel skippered by the master.

136. In addition, it should be noted that ships owned by the plaintiffs regularly visited Drogheda port in the years leading up to the grounding. In 2016, 72 Arklow ships traded in the port. In 2017, the figure as 98 while in 2018, it was 109. The plaintiffs therefore had extensive experience of the port. Moreover, in this case, there could be no doubt that the pilot, Captain Breach, would have to be familiar with the material described in para. 135 above and, as explained in para. 96 above, the pilot is treated for this purpose as the servant of the plaintiffs. Thus, the plaintiffs must be taken to be on notice of all of this material in relation to Drogheda port.

137. For completeness, it should be noted that the pilot who boarded the vessel on the inward voyage was Captain Breach who, as noted above, also acted as pilot on the outward voyage. According to Captain McJury, in his evidence on Day 6, the interchange between the pilot and the master of the vessel on the inward voyage should effectively have covered all of the features of the port which *"are going to be applicable on the way out"*. No evidence of any detail was given at the hearing of any such interchange. However, in circumstances where the pilot is deemed by law to be a servant of the shipowner, it ultimately does not make any difference whether a detailed interchange of information of this nature did or did not take place.

The interaction between the vessel's agent and the harbour master

138. There was a sharp conflict of evidence between the ship's agent, Mr. McGuinness of KC Shipping and Captain Donnelly as to what was said between them in relation to the loss of depth revealed by the Ceeducer survey on 10th December, 2018 and the subsequent further loss of depth anticipated by Captain Donnelly as a consequence of the weather forecast for the night of 12th December, 2018. As noted previously, this conflict relates to whether Captain Donnelly purported to set or advise the maximum sailing draught for the vessel on the outward voyage or whether he simply gave advice about depths.

139. The way in which that conflict of evidence unfolded should be noted. In the witness statements delivered on behalf of the plaintiffs, the matter was addressed quite briefly in the statement of Captain Traktatov who said, in para. 31, that he was *"contacted by the agent on the evening of 12th December and was informed that the maximum draft for sailing had been reduced by the Harbour Master from 6.54 to 6.0 metres salt water due to south easterly winds having reduced safe clearance and an increase in height at the bar".* He also said that *"This was the only contact from the agent".* It should be noted that both of these averments are inaccurate in some respects in that it became clear in the evidence that, even in the absence of a loss of depth at the bar, the vessel could never have safely sailed at a draught of 6.54 metres and that there appear to have been more interactions between KC Shipping and the master than are recorded in para. 31 of the witness statement.

140. In turn, when it came to the port company's witness statements, the matter was addressed in more detail by Captain Donnelly who said that he had two telephone conversations with Mr. McGuinness about the loss of depth and that he also spoke on the telephone with Captain Breach. Captain Donnelly explained that, as part of a

wider conversation with Mr. McGuinness on 10th December, 2018, he informed him that there had been a loss of depth of *"circa 30cms at the entrance".* Two days later, he had a further telephone conversation when he called Mr. McGuinness after hearing the RTÉ weather forecast on his car radio as he headed for a port forum meeting in Limerick. According to Captain Donnelly, it was raining heavily and the forecast was for strong south-easterly winds that evening and night. He said that he checked the XC weather app. on his telephone and added: *"Knowing that the depth in the channel was already reduced, and given the forecast, I considered that there was a risk of a further loss of depth, and that a further allowance of 20 cm would be appropriate"* and that he then telephoned Mr. McGuinness and said that *"based on the RTE weather forecast, they should allow another 20 cm. Mr. McGuinness said that would leave the vessel at 6m…"*. Captain Donnelly said that his telephone records show that this call was made at 18:58 on 12th December, 2018 and that the telephone call lasted one minute 31 seconds. He also said (and strongly reiterated this later in his oral testimony) that *"I did not, and would not, have confirmed that a draft of 6m was safe for the vessel to sail".* In the same witness statement, Captain Donnelly also said that he separately had a telephone conversation with Captain Breach and told him that he had informed KC Shipping to allow an additional 0.20 metres in light of the forecast.

141. It was only after Captain Donnelly's witness statement was delivered that a witness statement was furnished on behalf of the plaintiffs by Mr. McGuinness in which a detailed account was given of the advice alleged to have been provided by the harbour master. In that statement, Mr. McGuinness said that, using the Drogheda Tide Tables as a guide and the harbour master's policy of a 0.30 metres under keel clearance, KC Shipping can estimate the maximum permissible sailing draft of a vessel and the quantity of cargo that can be loaded to that draft but he added that the

"maximum sailing draft is always subject to the Harbour Master's approval." He also maintained that *"the exact same procedure was followed"* in the case of the vessel.

142. According to Mr. McGuinness, the harbour master is the only person with the *"ability to ascertain and/or predict the depth of the channel"* and that agents and ships' masters are *"entirely reliant upon the direction of the Harbour Master as we have no way of ascertaining what changes the may have had on the depths".* He stated that the harbour master *"therefore is the person who determines the maximum sailing draft of all vessels leaving the port of Drogheda and he communicates this to the agents".* He added that as the information comes from the *"person with the up to date information, it is assumed that this direction is a safe direction"* and that it *"has been a safe direction every other time the Harbour Master cut the maximum sailing draft due to loss of depth at the entrance. In my almost 7 years as Agent, this has occurred countless times".*

143. Mr. McGuinness said that there was always a potential for a loss of depth at the bar following stormy conditions and that, in such circumstances, the harbour master may decide to *"radically cut the maximum sailing draft for vessels until he can conduct a survey on the bar".* In his statement, he said that he did not recall a conversation with Captain Donnelly on 10th December but that he recalled speaking to him mid-afternoon on 12th December when there was a discussion about a *"likely loss of depth of 30 cm".* He explained that his telephone records showed that this conversation took place at 15:43 on that day and lasted 22 minutes. He observed that, at that stage, a maximum sailing draft of 6.20 metres seemed likely *"but no final cut of the draft was made by the Harbour Master. I assume that…* [he]*… was waiting to see how the weather developed later on into early evening".* Mr. McGuinness said

that he received a second call from Captain Donnelly later that evening but he suggested that it was likely to have been at approximately 19:00 because he subsequently called Captain Traktatov at 19:05 to tell him that the maximum sailing draft *"had been cut by the Harbour Master to 6 metres, salt water, even keel."* In his witness statement, Mr. McGuinness rejected any suggestion that that the predicted further loss of depth of 20cm was *"mere guidance"* and he contended that it was *"made quite clear to me by Captain Donnelly in his telephone call on the evening of 12th December… that he had set the maximum sailing draft… at 6 metres, salt water, even keel"*. Mr. McGuinness characterised this as a *"direction"* given by Captain Donnelly to *"cut"* the maximum sailing draught which he subsequently recorded in an email of 13th December, 2018 sent to Captain Traktatov and his principals and in a statement of facts jointly signed by his sister Maeve McGuinness and Captain Traktatov on the same day (discussed further below).

144. Later, on Day 3 of the hearing, Mr. McGuinness, under cross-examination, accepted that he could not say whether the first call from Captain Donnelly in relation to loss of depth did or did not occur on 10th December, 2018 but he maintained that the key thing from his perspective was that a conversation on 10th December could not have been a final conversation in relation to sailing conditions for a vessel that was not due to sail until 13th December. He also accepted that the focus of the 22-minute telephone conversation that took place earlier in the afternoon on 12th December was a discussion in relation to a behavioural issue in relation to a member of staff of KC Shipping at the port. In light of these very proper concessions by Mr. McGuinness and in light of the evidence subsequently given by Captain Donnelly, I am of the view that it is more likely that Mr. McGuinness was informed of a loss of depth of 0.30 metres on 10th December, 2018 and that the second conversation in relation to the further

anticipated loss of depth occurred in the short telephone conversation at 18:58 on 12th December after Captain Donnelly had heard the RTÉ weather forecast on the latter day. In my view, it also makes sense that Captain Donnelly would have informed the ships' agents on 10th December of the loss of depth recorded in the Ceeducer survey particularly in circumstances where the vessel was not due to arrive until 11th December. The information in relation to loss of depth at the bar was therefore of relevance to an incoming ship.

145. However, under cross-examination, Mr. McGuinness was adamant that, in the conversation about the further anticipated loss of depth of 0.20 metres, he was told by Captain Donnelly that the maximum permissible sailing draught was 6 metres salt water. He also made it clear that Captain Donnelly never suggested that a draught set by him was a safe draught, just that it was the maximum permissible draught. Mr. McGuinness maintained that the latter was a matter that was always fixed by Captain Donnelly in respect of every departing ship and that he had experience of this being communicated to him both by telephone and also, occasionally, in face to face conversation.

146. The evidence of Mr. McGuinness in relation to the setting of a maximum permissible sailing draught was strenuously rejected by Captain Donnelly when he came to give his evidence on Days 4 and 5 of the hearing. Under cross-examination on Day 5, Captain Donnelly maintained that, in the course of the telephone conversation at 18:58 on 12th December, 2018, he told Mr. McGuinness that he was anticipating a risk of a further loss of depth of 0.20 metres and that this was the purpose of his call. At later points in his evidence, he characterised his communication to Mr. McGuinness as advice in relation to the under keel clearance or as a *"direction"* in respect of such clearance. He contended that he would not *"know*

what draught the ship is going to be at" and that he did not have any knowledge of the figure of 6 metres which he suggested was given to him by Mr. McGuinness in the course of that telephone call.

147. It should also be noted that, in the course of his cross-examination Captain Donnelly also gave evidence that, in his *"recommendation for the extra 20 cm",* he analysed the tidal predictions for 13th December and came to the view that, with the strong south easterly wind forecast, the tide would make prediction. It should be recalled in this context that the Admiralty Sailing Directions suggest that winds from the south are likely to increase the level of the tide. He rejected the suggestion made to him by counsel for the plaintiffs that this was unwarranted on the basis that the tidal readings (taken from the tidal gauge situated on the opposite side of the river from the terminal) showed that there had been four successive tides on the mornings and afternoons of 11th and 12th December when the tide had not reached its predicted height. His evidence was that it regularly happens that one tide may not make prediction while the next could *"could make over the prediction".*

148. Having carefully considered all of the evidence on this issue, I have come to the conclusion that neither Mr. McGuinness nor Captain Donnelly are entirely correct in their respective versions of events. In reaching that conclusion, I wish to stress that I am not suggesting that either of these witnesses have deliberately failed to tell the truth. In my view, the conflict of evidence between them arises straightforwardly as a consequence of differences in recollection or perspective. The fact that I have not accepted elements of their respective evidence does not, of itself, undermine their evidence as a whole.

149. In my view, Mr. McGuinness is wrong in suggesting that Captain Donnelly always sets a maximum sailing draught for ships departing from Drogheda. His

evidence to that effect is undermined by a series of emails between Captain Donnelly and himself which predate the arrival of the vessel in the port and which were put to him on cross-examination. For example, in an exchange of emails on 22nd June, 2016 in relation to the arrival of the M.V. *"Flinter Ruby",* Mr. McGuinness gave details of that vessel to Captain Donnelly and asked whether it was in order to work at the terminal and, if so how much under keel clearance should be allowed. In his response, Captain Donnelly advised that the ship was *"good to go. Clearance 50cms, usual 30 cm plus restriction of 20 cm…".* This advice was solely in relation to under keel clearance and did not touch on the draught. There is a somewhat similar email exchange between KC Shipping and Captain Donnelly on 5th July, 2017 in respect of the M.V. *"Mia"* in which the question is asked whether it was in order for the vessel to dock at the terminal and, if so, *"what draft restriction?".* Captain Donnelly responded to say that it was *"Ok for TRP, 55cms under keel clearance on predicted tide of arrival".* In these emails, Captain Donnelly was clearly confining his communication to the level of under keel clearance available and was making no recommendations in relation to draughts. In the course of his cross-examination, Mr. McGuinness sought to distinguish these emails on the basis that they related to incoming ships. However, I do not accept that this is a plausible basis on which to do so. As Captain Donnelly subsequently observed in his evidence, the ships in question had to pass over the bar on their inward voyage. There was no way in which the bar could be avoided by an incoming ship.

150. On the other hand, I have come to the conclusion that Captain Donnelly was not correct in his evidence in so far as he sought to suggest that he never purported to set a maximum sailing draft. Again, the pre-grounding emails that were put in evidence undermine this contention on his part. For example, in an email of 23rd May,

2018 to Mr. McGuinness in respect of the M.V. *"Arklow Rainbow"*, Captain Donnelly referred to a *"cut"* in the tide of 0.17 metres and stated that *"Max draft even keel sailing for Fri am 6.2m SW".* While Captain Donnelly sought to suggest that this must refer back to an earlier conversation with Mr. McGuinness as to *"what the ship was trying to get down to… to her summer marks…",* it was clear from his evidence that this involved an element of speculation on his part and that he did not have an actual recollection of the circumstances in which the email was written or the nature or content of any conversation that he may have had with Mr. McGuinness. Moreover, I do not accept that his suggestion adequately explains the reference to a maximum sailing draught in the email. Such a reference is entirely consistent with the evidence given by Mr. McGuinness in relation to what he says was said to him in the course of the telephone conversation with Captain Donnelly at 18:58 on 12th December, 2018.

151. Similar references are also found in a number of other emails. These include an email of 25th May, 2018, specifically headed *"sailing draft"*, from Captain Donnelly to Mr. McGuinness relating to the M.V. *"Swami"* in which he, again refers to a *"cut"* in the tide and specifies: *"max draft sailing Sat Am 6.25m SW even keel"*. In addition, in an email of 26th October, 2018 from Captain Donnelly to Mr. McGuinness (also expressly headed *"sailing draft"* but also marked *"For Masters (sic) attention"*) in relation to the M.V. *"Aastum"*, Captain Donnelly, in the context of tides not making prediction, stated: *Permitted sailing 6.25m even keel SW"*. Although framed in telegrammatic terms, this email plainly carried the message that this was the maximum sailing draft permitted by the Harbour Master for the ship in question. This conclusion is reinforced by the way in which the email is headed for the attention of the master of the ship. In addition to these emails in relation to

individual ships, the plaintiffs have also highlighted a revealing email circulated by the harbour master to all port operators, including KC Shipping on 5th March, 2018 in which Captain Donnelly said:-

> *"Following severe south easterly gales, a* ***temporary draft restriction is now in place on the TRP tidal predictions.*** *Additionally, masters should allow sufficient under keel clearance.* ***Please maintain close contact with my office for the planning of loading drafts****… Depths will continue to be monitored and you will be kept advised of any changes"* (emphasis added).

In my view, this email undermines Captain Donnelly's contention that he does not concern himself with the draughts of ships using the port.

152. The evidence of Captain Donnelly is also undermined by the responses given by him to a draft of the MCIB report into the grounding of the M.V. *"Arklow Raider"*. In a letter dated 12th December, 2017 to the MCIB, Captain Donnelly responded in the following terms to the finding proposed by the MCIB to the effect that none of the harbour master, the pilot or the master had considered the increase in draught of the *"Arklow Raider"* caused by rolling: *We don't accept the premise of this… The Harbourmaster attended on board prior to loading and discussed with the Master the departure draft taking into account the prevailing and predicted conditions …"*. At minimum, this shows that there have been occasions when Captain Donnelly has involved himself in the setting of a draught and that his discussions are not solely confined to issues in relation to under keel clearance.

153. I am also influenced by the evidence given by the pilot, Captain Breach, on Day 6. In the course of his cross-examination, he was asked whether, in many of his conversations with Captain Donnelly in relation to ships he was requested to pilot, the

harbour master mentioned the sailing draught of the ship. His answer was: *"Sometimes yeah. Sometimes he will"*.

154. I have, therefore, concluded that, while this was not a universal practice by Captain Donnelly, there were occasions when he specified a maximum permissible sailing draught for ships either entering or leaving from Drogheda port. It seems likely that such interventions were prompted by events which gave rise to an apprehension that there might be a loss of depth of water available for ships using the port.

155. I have also come to the conclusion that Mr. McGuinness's recollection of the telephone conversation at 18:58 on 12th December, 2018 is more likely to be accurate than that put forward by Captain Donnelly. In other words, I find that, in the course of that conversation, it is probable that Captain Donnelly said to Mr. McGuinness that the maximum permissible sailing draught for the vessel was 6 metres, salt water, even keel. I have come to that conclusion for a number of reasons. In the first place, for the reasons outlined above, I reject the suggestion made by Captain Donnelly that he never purported to set a maximum sailing draught. Secondly, before any controversy arose in relation to what was said in the course of that conversation, Mr. McGuinness relayed the effect of it to Captain Traktatov and other representatives of the plaintiffs in his email to them of 13th December, 2018. In that email sent at 10:11 on that day, Mr. McGuinness said in simple and straightforward terms that *"due to severe SE winds during the night and the potential impact on the Bar outside, the Harbour Master cut the maximum sailing draught to 6 metres, salt water, even keel"*. At the point when that email was sent, there was no reason for Mr. McGuinness to embellish or misreport what had been said to him by Captain Donnelly.

156. Thirdly, the language used in that email is reflected in what was said by the pilot, Captain Breach, in a statement made by him on 17th December, 2018 very soon

after the grounding. In that statement, Captain Breach described in some detail the terms of a telephone conversation which he had with Captain Donnelly at 11:50 on 13th December. He recounted that conversation in the following terms:-

> *"We discussed the weather past and expected over the tide time where a decrease in the wind was forecast.* ***The Harbour Master advised that he had recommended a draft reduction of 20cm from the previous evening taking account of the forecast and that the vessel should have a sailing draft of 6.0M even keel.*** *..."* (emphasis added).

This statement was put to Captain Breach in the course of his direct examination by counsel for the port company and he did not demur from its contents in any way. His direct evidence was that his statement to the effect quoted above was:-

> *"fairly self- explanatory… The Harbour Master advised that he had recommended draught reduction of 20cm from the previous evening, so he had recommended a draught decrease the previous evening."*

157. At a later point, while under cross-examination, Captain Breach sought to retreat somewhat from this evidence and to suggest that:-

> *"at no stage would Martin tell me the draught that a vessel has to be. He was informing me what the draught of the vessel was, was planned to be."*

However, it is difficult to accept that gloss on what he had said in his near contemporaneous statement made on 17th December, 2018 or in his straightforward direct evidence when he was carefully taken through the terms of the statement. It is also inconsistent with later less guarded evidence given by him under cross-examination when he said that: *"My knowledge is as per this statement: he gave me a call and he told me that he'd reduced it by 20cm and that the draught should be 6m"*. The reference there to *"this statement"* is clearly a reference to Captain Breach's

statement of 17th December, 2018. It cannot have been intended to refer to the statement made by him for the purposes of these proceedings. Surprisingly, no reference whatever is made in that statement to the earlier statement of 17th December, 2018 notwithstanding the important material contained in it with regard to the events in issue (including the nature of his telephone conversation with the harbour master) and also notwithstanding that the earlier statement was made while the events and any relevant conversations were fresh in Captain Breach's mind. Captain Breach gave conflicting explanations for the omission of any reference to that earlier statement in his witness statement furnished in these proceedings. At one point, he suggested that he did not realise that he needed to refer to the statement and that it did not occur to him to refer to it. However, later, in answer to questions raised by me at the conclusion of his evidence, he confirmed that, when he came to make his statement for the purposes of these proceedings, he had a copy of the statement and that he did refer to it (by which I understood him to mean that he read it at that time). I then asked him whether there was any particular reason why he left out the detail contained in the December 2018 statement, and he replied that he was not particularly happy about giving a witness statement and that he *"put as little information into it as I possibly could"*. He was then asked by counsel for the plaintiffs whether this was because he was in a difficult position because he needed to maintain a relationship with the harbour master and, after some hesitation, his answer was:-

> *"Possibly, but I'd say more so just the circumstances of having to give a witness statement… You're just reluctant to say something you might regret, you know."*

158. At this point, I have to record that, in my view, it is unsatisfactory that no reference was made by Captain Breach in his witness statement in these proceedings

to his earlier statement. I do not know what, if anything, may have transpired between him and those charged with taking a statement from him for the purposes of these proceedings. However, in my view, it would have been both good practice and entirely appropriate for the latter to have specifically raised the contents of the December 2018 statement with Captain Breach and requested him to address the additional information contained in it for the purposes of making a witness statement in these proceedings. Be that as it may, I have come to the conclusion that the December 2018 statement, having been made while events and conversations were still fresh in Captain Breach's mind, is likely to contain a reasonably accurate account of what was said to him by Captain Donnelly on the morning of 13th December, 2018 in relation to the draught of the vessel. In my view, it significantly undermines the evidence now given by Captain Donnelly to the effect that he was concerned solely with under keel clearance and not with the permissible maximum draught of the vessel.

159. I therefore accept the evidence of Mr. McGuinness in relation to what transpired between him and Captain Donnelly in the course of the telephone conversation at 18:58 on 12th December, 2018.

160. That said, it is important to keep this element of the case in perspective. The fact that I have accepted Mr. McGuinness's version of the telephone conversation at 18:58 on 12th December, 2018 does not, of itself, mean that the plaintiffs must succeed in their case. In my view, the setting of a maximum permissible sailing draught by the harbour master cannot be considered in isolation. It must be considered in the context of the provisions of s. 3(2) of the 1995 Act which confines the duty of an occupier to an obligation to take such care as is reasonable in all the circumstances to ensure that a visitor to the port does not suffer damage as a consequence of a

danger existing at the bar; in this case, the danger of siltation or a loss of depth at the bar. In considering, what is reasonable in all of the circumstances, s. 3(2) makes clear that the court must also take into account the care which a visitor to the port may reasonably be expected to take for his or her own safety. That means that the conduct of the master of the vessel, Captain Traktatov, and of the pilot, Captain Breach, must also be taken into account.

161. Moreover, the plaintiffs must prove, on the balance of probability, that the maximum permissible draught set by the harbour master was incorrect and did not properly assess the available depth at the bar. In this context, I have not lost sight of the argument made on behalf of the port company that the concept of a *"correct"* maximum sailing draught is unattainable having regard to the variables to be considered in determining a safe sailing draught. Such variables include the stage and state of the tide, the weather conditions prevailing at the moment of sailing and the characteristics of the ship. While the extent and weight of the cargo will largely dictate the draught of a ship, the speed of the ship in the water, the weather, the density of the water (whether salt, fresh or brackish) and the state of the sea and the tide all have the capacity to affect the draught. Some of those factors can also give rise to the phenomena of squat and heeling which everyone accepted will affect the draught of the vessel at the time these phenomena are encountered. These are factors that would have to be taken into account by a master or a pilot in assessing whether it will be feasible or practicable to safely sail on the basis of a particular draught or whether it might be necessary to load to a shallower draught. I do not believe that a harbour master, in fixing a maximum permissible sailing draught, could be said to give any assurance that a ship will necessarily be able to safely maintain such a draught. Whether such a draught can, in fact, be maintained, will require assessment

by the master and the pilot in advance of sailing. They will have to consider all relevant factors that may have an impact on whether a maximum sailing draught set by a port can be maintained by the ship under their charge. In my view, the maximum sailing draught set by a port authority must be seen in the context of the physical conditions of the port such as the depth of the navigable channel available for ships using that port, the state of the tide and any other dynamic factors that are likely to be encountered and on the assumption that those in charge of the ship will set an appropriate speed and otherwise navigate the ship in a responsible, safe and seamanlike way.

162. In support of their case, the plaintiffs argue that, in setting the maximum permissible sailing draught and in allowing the vessel to leave, there was a failure on the part of the port company to take soundings, a failure to have sufficient regard to the weather or to the tides or to the tidal gauge readings. These are all matters which the plaintiffs will have to prove on the balance of probability. In addition, in accordance with ordinary causation rules reaffirmed by the Supreme Court in *Best v. Wellcome Foundation Ltd.* [1993] 3 I.R. 421 and *Quinn (a minor) v. Mid Western Health Board* [2005] 4 I.R. 1, the plaintiffs must also prove, on the balance of probability, that it was a failure to take reasonable care by the port company as required by the 1995 Act that led to the grounding and not some other cause.

163. In considering the case made by the plaintiffs, it will accordingly be necessary to carefully consider the conduct of all parties after the telephone conversation between Captain Donnelly and Mr. McGuinness in which the former set a maximum permissible sailing draft for the vessel of 6 metres. It will also be essential to consider the conditions in the port at the time the decision to sail was made including any evidence that may assist in determining whether there is a basis to conclude that the

harbour master's estimate of a further 0.20 metres loss of depth (in addition to the 0.30 metres measured by the Ceeducer survey) was incorrect.

The plaintiffs' case that the port company failed to take soundings

164. Before turning to the evidence on the issues outlined in para. 163 above, I should first address the case made by the plaintiffs that, in setting the maximum permissible sailing draft, there were a number of specific failures that significantly impacted on its reliability. In the first place, the plaintiffs contend that, in the period between 10th and 13th December, 2018, there was a failure by the port company to take any soundings as to the depth of the channel at the bar. That is a very relevant issue in the context of the duty imposed on the port company as occupier of the port by the 1995 Act to take such care as is reasonable in all the circumstances to ensure that a visitor to the port does not suffer damage by reason of a danger existing in the port. As the case law discussed in paras. 76 to 82 above demonstrates, it is well established that the accretion of silt in a navigable channel of a port is capable of constituting such a danger. I therefore turn next to consider whether there was a failure to take additional soundings.

165. As noted earlier, a Ceeducer survey was carried out on 10th December, 2018 which showed a loss of depth of 0.30 metres at the bar. As I understand the survey, it shows a varying loss of depth but the relevant loss for present purposes is the loss of depth of 0.30 metres at the southern part of the channel used by vessels departing the port. At one point in the evidence of Captain Breach on Day 6, he suggested that the survey showed a loss of depth of 0.50 metres but this was in the northern side of the channel and it was confirmed by counsel for the plaintiffs that they accept that the relevant loss of depth revealed by the Ceeducer survey is the loss of depth of 0.30

metres on the southern side of the channel at the bar. Counsel also confirmed that the plaintiffs make no criticism of this survey. Their criticism relates to the failure to carry out a further survey in the intervening period between 10th December and the grounding.

166. The plaintiffs highlight what they suggest are a number of inconsistencies in the evidence of Captain Donnelly in relation to the potential to carry out further surveys in the period between 10th and 13th December. On the one hand, in his evidence, he suggested that there was no need to carry out a further survey between 10th and 12th December in light of the relatively clement weather in that period but, on the other hand, he gave evidence that the wind and sea conditions at the bar did not allow a survey to be undertaken. The plaintiffs also submit that the latter explanation is unconvincing and represents an *ex post facto* attempt to provide a rationale for what they characterise as an obvious failure on the part of the port company. While they do not go so far as to suggest that the weather conditions, in the period between 11th and 13th December, would have permitted the Ceeducer unit to be used, they contend it should have been possible to undertake a more informal investigation such as *"running the lights".* This would involve the crew of the pilot boat maintaining a course along the channel by the leading light and recording the depths initially along the *"white sector"* (i.e. the central line), then moving off the central line to the channel toe boundary. Captain Donnelly explained that this method, although cost effective and fast, will provide no more than an approximate method of ascertaining the depths of the channel. As noted in para. 11(a) above, there is also an even more informal method which involved the pilot boats taking soundings using an echo-sounder as they go about their ordinary business. The plaintiffs complain that the port

company did not even use this method in advance of the sailing of the vessel on 13th December, 2018.

167. The plaintiffs contrast the lack of any survey during the 11th-13th December period with what was said by Captain Donnelly in his witness statement. There, the harbour master explained that, where there is a westerly wind (which he said was the prevailing wind in the port) the drift of sediment will be quite slow and gradual. In such circumstances, he said that: *"I will ask the pilot boat to "run the lights" using an echo sounder and report the depths at the entrance"*. However, he also said that, if there are strong winds from the north east to the south east quadrants, there is an increase in sediment accretion and depth reduction and, in such circumstances, *"I would ask the pilot boat to "run the lights" to get an approximation of the depth loss that may have occurred"* following which the position would be confirmed by a Ceeducer survey as soon as weather conditions will allow. The plaintiffs highlight that Captain Donnelly gave no hint in his witness statement that there might be any difficulty in carrying out the less formal *"running of the lights"* in heavy seas. His witness statement referred solely to an inability to carry out a Ceeducer survey. They also draw attention to the way in which Captain Donnelly, in his witness statement, went on to say that the pilot boats *"are **constantly** monitoring the depths in the entrance"* (emphasis added) and that the:-

> *"echo sounder display is mounted at the wheelhouse command position in eye line view of the coxswain, crewman and pilots. The echo sounding is running when the* [pilot] *vessels are in operation."*

He also explained that the crew of the pilot boats will alert him if they observe a reduction in depth.

168. The plaintiffs accordingly argue that it was a simple matter for ongoing measurements to be taken in the period between 11th and 13th December. In the course, of his evidence on Day 4, Captain Conlon confirmed that he had been told by Captain Donnelly, subsequent to the grounding, that one can get a *"good average"* from such measurements. However, it should be noted that, when it was put to him that where a boat is *"moving up and down on… 1.5 m waves, it's going to make it very hard … to get an accurate record",* Captain Conlon conceded that if *"there was a big swell"* it might not be possible to take measurements. For completeness, it should be noted that there is some ambiguity in Captain Conlon's evidence as to whether Captain Donnelly had spoken of getting a good average in the context of a 1.5 metre waves. In my view, when considered as a whole, his evidence should not be interpreted in that way given his concession that it would be hard to get an accurate record where there is a big swell. Moreover, on Day 5, Captain Donnelly gave evidence which explained the context of his conversation with Captain Conlon. He explained that the conversation took place when Captain Conlon arrived in Drogheda (which was at 19:30 on 13th December). At that time, the Met Éireann weather estimates (discussed below) suggest that the winds experienced on that day had begun to abate in the early part of the afternoon and that this continued as the evening progressed. The estimates suggest that mean wind speeds on that day ranged from 17 to 25 knots, so it is likely that, by 19:30, winds were approaching the lower end of that scale albeit that, even at the lowest point on that scale, the wind would still be classified as force 5 on the Beaufort scale. According to Captain Donnelly, Captain Conlon was keen to have a depth survey undertaken by the port company and Captain Donnelly explained that:-

> *"conditions were way too rough. You know, if you do have a little bit of a sea and a swell, they can make some adjustment in the analysing of the information…"*

As discussed further in para. 174 below, the swell earlier that day (when the winds were somewhat stronger) at the bar was estimated to be approximately 2 metres. While there is no evidence of the extent of the swell at 19.30, it is reasonable to conclude that it is unlikely to have been higher than 2 metres and, given the abatement in the speed of the wind, it may have been somewhat lower. Thus, it is probable that conditions at that time were not significantly different to a swell of 1.5 metres. When all of this evidence is taken together, I believe it is unlikely that Captain Donnelly would have said to Captain Conlon that it would be possible for the pilot boats to undertake accurate soundings in waves of 1.5 metres by taking an average of the readings recorded. Moreover, it is inherently unlikely that one could get accurate readings in conditions of that kind and neither of the experts expressed the view that it was achievable in such conditions. Captain Walton, the expert called by the plaintiffs, conceded that it would be *"quite difficult"*.

169. Captain Donnelly was robustly cross-examined on the issue of soundings on Day 5 of the hearing. In summary, his response was that there was no reason to take soundings on the 11th December because they had been taken on the 10th and the weather was such on the 11th that he had no reason to anticipate any change on that day. His evidence was that there was equally no reason to take soundings in the daytime on the 12th December because the winds were still not that strong although he also said that *"had I considered a survey was needed, the wind was making conditions at the bar unsuitable for a small boat to do a survey".* He clarified that the winds

were south-easterly during the day, force 3 to 4, which he suggested was sufficient to have the result that *"the pilot boats… couldn't take soundings"*.

170. In response, it was put to him that no one would describe a force 3 or 4 wind as rough conditions. In this context, it should be borne in mind that a force 3 on the Beaufort scale is described as a *"gentle breeze"* of 8 to 12 miles per hour (or 7 to 10 knots) giving rise, according to the Beaufort scale narrative, to large wavelets on the sea with breaking crests and scattered whitecaps. On land, this would lead to the constant motion of leaves and small twigs and it would lead to the extension of a light flag. A force 4 is described as a *"moderate breeze"* of 13 to 18 miles per hour (or 11 to 16 knots) giving rise to small waves becoming longer and numerous whitecaps. On land it would raise dust and loose paper and would cause branches of trees and shrubs to move. As described in para. 22 above, a force 5 is described as a *"fresh breeze"* of 19 to 24 miles per hour (or 17 to 21 knots) giving rise to moderate waves taking longer form, many whitecaps and some spray. On land, this would give rise to the swaying of small trees in leaf and crested wavelets would form on inland waters.

171. Captain Donnelly acknowledged that a force 3 or 4 would not be considered to be rough by reference to the Beaufort scale but he added that if *"you're in a small boat of 38 foot … you certainly feel it out there in a force 3 or 4"*. While a pilot could still service a ship in such conditions, Captain Donnelly maintained that, due to the conditions encountered on 12th December, it was not possible for the pilot boat to take accurate soundings. He also stressed, however, that, while such a wind would cause problems for the taking of accurate depth measurements, it would not, in his experience of conditions in Drogheda port, give rise to an appreciable accretion of sediment at the bar. In contrast, where the wind was south-easterly, force 5 or 6, Captain Donnelly said that he would expect the transport of sediment. He said that it

was also impossible to take soundings on 13th December because the weather was considerably worse.

172. It was put to Captain Donnelly that his estimate of a further loss of depth of 0.20 metres conveyed to Mr. McGuinness on the evening of 12th December was *"a shot in the dark"* because he did not have any information to go on (in terms of soundings) since 10th December, 2018 *"even though there'd been south easterly winds right the way through up until the 13th"*. His response was:-

> *"No, I disagree with you. There were light winds on Tuesday* [11th December] *increasing on the Thursday night* [this appears to have been intended as a reference to Wednesday, 12th December] *So, it's not right to say that there was* (sic) *winds providing sediment transport every day."*

It was then suggested to him that he was trying to have his cake and eat it because, on the one hand, he was contending that the winds were too strong on 12th December to take soundings while, on the other hand, he was contending that the winds had not strengthened until the evening of 12th December. His answer was:-

> *"That is correct, the winds were strengthening on the evening of the 12th, that's when I would expect the sediment transport to be agitated and to be carried. Not on 11th, not in the daylight of the 12th."*

173. There are no Met Éireann records held for the actual weather conditions at the port or in its immediate vicinity. There is no weather station nearby. However, in the course of his second report, Captain McJury very helpfully put forward estimates made by Met Éireann of weather conditions at Drogheda port in the period between 10th and 16th December, 2018. These estimates were prepared by reference to readings taken at Dunsany, County Meath, Dublin airport and Buoy M2 which is situated (some distance off the north Dublin coast) in the Irish Sea southeast of Drogheda. In

the course of the evidence, there was a general acceptance that the readings at Buoy M2 would be more relevant to Drogheda port than the other locations used but, understandably, Captain Donnelly made the point that one should look at the position in Drogheda. Being some distance off land, Buoy M2 is very obviously in a more exposed position than the port and I expect that it was for that reason that Met Éireann did not use it as the sole proxy for weather conditions at Drogheda but also had regard to conditions at Dunsany (an entirely inland location 35 kilometres west south west of Drogheda) which has a height of 83 metres and also the weather station at Dublin airport (situated 34 kilometres south of Drogheda and not far from the coast) which has a height of 71 metres. The Met Éireann estimates suggest that, on 10th December, 2018 the winds at Drogheda were light to moderate breezes with mean speeds of 6 to 15 knots (which would be classified as force 2 to 4 on the Beaufort scale) backing from south westerly in the morning to south easterly in the afternoon. For 11th December, the estimate is that the winds at Drogheda were moderate but occasionally fresh (variable but later south easterly) with mean wind speeds between 10 and 20 knots (which would be classified as force 3 to 5 on the Beaufort scale). In the case of 12th December, the estimate is for moderate to fresh winds with mean speeds of 10 to 20 knots from southerly or south easterly direction but increasing fresh to strong in the afternoon with mean wind speeds of 15 to 25 knots. These would be classified as force 3 to 5 in the morning but force 4 to 6 in the afternoon. For 13th December, the Met Éireann estimate suggests fresh to strong winds with mean speeds of 17 to 25 knots from a south-easterly direction. These would be classified as force 5 to 6 on the Beaufort scale. Met Éireann has also, very usefully, supplied a graph which shows the wind speeds in knots recorded at all three weather stations. While the graph consistently shows significantly higher wind speeds for Buoy M2 than for the other

two stations, the graph shows that the pattern of the wind speeds at all three locations was very similar. The wind speed dropped at midday on 10th December, increased over the course of the second part of that day into the 11th December, dropped again at the beginning of 12th December and then rose relatively sharply over the course of that day and into the early afternoon of 13th December before dropping gradually over the course of that afternoon and evening. The graph suggests that the wind speeds encountered in the second part of 12th December into the early part of afternoon of 13th December were significantly stronger over a more sustained period than was the case in the immediately preceding period. That is consistent with the evidence of Captain Donnelly and with the way in which, prompted by the Met Éireann forecast on the evening of 12th December, he formed the view that there could be additional siltation at the bar by the time the vessel was due to sail on the following day. That said, the Met Éireann estimates suggest that, over the course of 11th December, the winds at the port were, at least occasionally, stronger than had been expressed by Captain Donnelly who, as outlined above, characterised them as force 3 or 4 on 11th December. On the basis of the Met Éireann estimates, they may have hit force 5 at times during the course of that day albeit that the graph suggests that they did not reach the speeds encountered in the second part of the following day and further suggests that they were not sustained throughout the day.

174. I have to say that I am unconvinced that force 3 or 4 winds (even from the south east) would be sufficient in themselves to create conditions that would create such choppy conditions at the bar as to make it impossible for the pilots boats to take informal depth soundings there of the kind described in para. 11(a) above or a *"running of the lights"* as described in para. 11(b). Winds of that kind are not unusual in Ireland and the Beaufort scale (which is an entirely objective source of information)

does not suggest that such winds would create difficult sea conditions. I find it impossible to accept that a commercial port with a potential hazard such as the bar (with its propensity to silt in certain conditions) would not be able to take any form of soundings in such conditions. As noted above, Captain Donnelly, in his conversation with Captain Conlon on the evening of 13th December, 2018, expressly accepted that *"if you do have a little bit of a sea and a swell"* adjustments can be made (by which he meant that an approximate measurement can be made by reference to an average of the readings). However, the Met Éireann estimates provide some support for Captain Donnelly's suggestion that conditions on 11th December were worse than those to be expected by reference to the Beaufort scale in the context of force 3 or 4 winds. The estimates suggest that force 5 winds were experienced for at least part of that day and the Beaufort scale suggests that force 5 winds have a greater propensity to cause the formation of moderate waves. In this regard, I heard evidence from Captain Barry Flood as to conditions encountered on 13th December, 2018 when, as described further below in the context of the grounding, winds of force 6 moderating to force 5 were forecast (and the accuracy of which is borne out by the Met Éireann estimates described above). The graph suggests that they were likely to have moderated by the early afternoon on that day which is when Captain Flood described their effects at the bar. Captain Flood is a colleague of Captain Breach. He is one of the licensed pilots at the port. On 13th December, 2018, he accompanied the gas tanker *"Sefarina"* from the Flogas LPG terminal to the Tower light where he disembarked onto the pilot boat before the *"Sefarina"* proceeded to pass safely over the bar. He waited aboard the pilot boat for Captain Breach to disembark from the vessel (which departed the terminal approximately 30 minutes after the *"Sefarina"* left the Flogas facility). According to Captain Flood, there was a swell of approximately 2 metres at the

breakwaters at that time. Broadly speaking, the bar is situated between the tips of those breakwaters extending somewhat further to the east. The evidence of Captain Flood was not challenged by the plaintiffs. While Captain Flood did not specify the time at which this observation was made, it is likely to have been sometime between 13:30 and 14:30 on that day. That was the period in which the *Sefarina* passed over the bar and Captain Flood waited on the pilot boat for Captain Breach to finish his pilotage of the vessel. For similar reasons to those outlined in para. 168 above, I do not believe that accurate readings as to depth at the bar could be taken in such conditions. Given that the Met Éireann estimates show that wind conditions in the earlier part of 13th December and the previous night were worse than later in the afternoon of that day, it must also follow that it would not have been feasible to take readings in the course of the evening of 12th December or the earlier part of the day on 13th December.

175. I am conscious that I do not have first-hand evidence of the extent of the swell at the bar on 11th or 12th December, 2018. I therefore cannot find that the swell was as much as 2 metres or even 1.5 metres on those days except in so far as the later part of 12th December is concerned when the Met Éireann graphs (discussed above) suggest that the winds are likely to have reached similar speeds to those encountered up to the early part of the afternoon on 13th December when Captain Flood witnessed the swell of approximately 2 metres. In those circumstances, I believe that it is reasonable to reach the view that, on the balance of probabilities, sea conditions at the bar in the later part of 12th December would not have allowed the taking of accurate readings. On the other hand, while the Met Éireann estimates for 11th December provide some support for Captain Donnelly's view that it was not possible to take readings on that day, I cannot accept that there were no occasions on that day or on the morning of 12th

December when readings could have been taken. The Met Éireann graph and estimates suggest that conditions were no worse, for at least part of 11th December and also in the early morning of 12th December, than the winds experienced on 10th December (which was the day when the Ceeducer survey was undertaken). However, that begs the question whether readings should have been taken on either of those days – particularly in circumstances where a Ceeducer survey (which everyone accepted was accurate) had been undertaken as recently as 10th December, 2018. Captain Donnelly was adamant that the taking of readings was not required on either of those days given both the proximity of the Ceeducer survey and the weather on both days. Although Mr. Tyrell, a director of the plaintiffs, gave evidence that, in his view, the port company should have undertaken daily soundings, neither of the experts went that far. In his first report, Captain Walton confined himself to saying that regular surveys of the channel were required. He did, however, suggest that, in light of the weather while the vessel was berthed at the terminal, the harbour master should not have permitted the vessel to sail until he had an opportunity to undertake further checks such as running the lights or a further bathymetric survey using the Ceeducer. The latter is an issue to which I will return in para. 242 below. At this point, I will confine myself to the issue as to whether the port company should have taken soundings during the course of 11th December or in the first part of the day on 12th December on those occasions during those days when sea conditions would appear, on the evidence available to me, to have permitted it.

176. I have come to the conclusion that, given the full Ceeducer survey that had been carried out on 10th December and, in the absence of any expert evidence suggesting that daily surveys were required, the port company had no reason to take additional soundings on 11th December. However, conditions on 11th December were

conducive to the build up of silt, at least to some degree. For at least part of the day, the wind was from the south east which both the Admiralty Sailing Directions and the evidence of Captain Donnelly indicated could give rise to the accretion of silt. Furthermore, for at least part of the day, the mean wind speed was as much as 20 knots which is at the upper end of force 5 on the Beaufort scale. While Captain Donnelly strongly maintained that, in his experience, conditions on that day were not likely to give rise to any appreciable build of silt at the bar, I do not believe that one could safely conclude that there would not be some level of accretion. That said, it is clear from the Met Éireann estimates and from the graph that the weather on 11th December was not as severe as on the weather event which began in the course of the afternoon and evening of 12th December and which continued into 13th December. The latter was a more sustained event with significantly stronger winds for at least the night of 12th December and the morning of 13th December. According to the Met Éireann material, the highest mean wind speeds during that period were 25 knots which is more than half way on the force 5 rung on the Beaufort scale. The next rung on that scale is *"near gale"*. Thus, to the extent that there was an accretion of silt in the period between 10th and 13th December, 2018, the weather on the evening of 12th and the morning of 13th December is the more probable source of the greater part of any such accretion than weather conditions on 11th December. Nonetheless, subject to that caveat, there is scope to conclude that the weather on 11th December could have led to some level of accretion such as to make it advisable for the port company to make some effort to take soundings in the course of the morning of 12th December when, for the reasons discussed above, the weather conditions would not appear to have prevented the taking of soundings for the entire of the morning. Accordingly, this is a factor that I will have to bear in mind in my overall consideration of whether

the plaintiffs have established an actionable breach of duty on the port company's part (i.e. a breach of duty that can be said, on the balance of probabilities, to be causative of the grounding).

177. The absence of any further surveys or soundings in the period between 10th and 13th December is also relevant to the case made by the plaintiffs that, in the absence of relevant soundings, the estimate made by the harbour master on 12th December, 2018 of a further loss of depth of 0.20 metres was no more than a *"shot in the dark"* and that it cannot have been accurate. That is an issue to which I will return when I come to my overall conclusions on the cause of the grounding. Before doing so, it may be helpful, at this point, to consider the case made by the plaintiffs that, in setting the maximum sailing draught at 6 metres, the harbour master failed to have regard to the results of the automatic tidal gauge (available to him at all times on his mobile phone) that showed that the morning and afternoon tides had failed to meet prediction on each of 11th and 12th December.

Was there a failure by the harbour master to have regard to the tides as recorded by the tidal gauge?

178. As noted above, the plaintiffs complain that the harbour master failed to take account of the *"cutting"* of the tides on each of 11th and 12th December which they say also continued into the morning tide on 13th December. Essentially, the case made is that, over the course of at least two days, there was a pattern of five tides in succession failing to make prediction at the port and that the harbour master should have taken this into account, the implication being that, had he done so, he would have been able to predict, or at least to guard against, the consequent loss of depth of water available to accommodate the draught of the vessel. It should be recalled that,

as noted in paras. 150 to 151 above, there were occasions in the past where the harbour master appears to have taken recent cuts of the tide into account in setting permissible sailing drafts for the *"Swami"* in May, 2018 and for the *"Arklow Rainbow"* in October, 2018. However, in each of those cases, the relevant emails from Captain Donnelly record that northerly winds were forecast which, as explained in the Admiralty Sailing Directions are liable, in contrast to southerly winds, to decrease the level of the tide.

179. The tides at 01:27 and 01:37 on 11th December, 2018 recorded by the automatic gauge, located on the river outside the port company's offices opposite the terminal, were between 0.08 and 0.11 metres short of the tides predicted in the Drogheda Tide Tables at the terminal at 01:31 on the same day. The Tide Tables predicted a tide of 6.82 metres at the terminal at 01:31 on that day. Yet, the levels recorded by the automatic gauge were 6.71 metres at 01:27 and 6.74 at 01:37 (in both cases taking account of 2.2 metres CD). Similarly, the Tide Tables predicted a high tide of 7.11 at 13:43 on that afternoon while the automatic gauge (when 2.2 metres CD is taken into account) recorded the afternoon high tides at 6.98 metres at 13.37 and 6.99 metres at 13:47 on the same day reflecting a cut in the tide of between 0.12 to 0.13 metres.

180. There was a somewhat similar pattern on 12th December, 2018. The Drogheda Tide Tables predicted a high tide of 6.68 metres at the terminal at 02:09 on that morning. However, the readings at the automatic gauge fell short of that. Taking 2.2 metres CD into account, the gauge recorded that, at 02:07 on that day, the tide was 6.61 metres while at 02:17 it reached 6.62 metres representing a cut of between 0.06 and 0.07 metres. On the following morning, the tide again failed to meet the prediction made in the Tide Tables. The Tables predicted a high tide of 6.53 metres at

the terminal at 02:51 on that morning but (when 2.2 metres CD is added) the relevant readings on the gauge were 6.41 metres at 02:47 and 6.43 at 02:57 suggesting a cut of between 0.10 metres and 0.12 metres. However, the gauge records a slightly higher tide of 6.44 metres at 03:07 and also at 03:17 which suggests that the true level of the cut ranges 0.09 to 0.12 metres.

181. The plaintiffs' case is that this pattern of cuts in the tides over the course of five tides immediately preceding the sailing of the vessel should have been taken into account by the harbour master in setting or revising a maximum permissible sailing draught and that his failure to have regard to it demonstrates a failure of duty on the part of the port company. They argue that, had the harbour master taken these readings into account (as they submit he should), it would have been apparent to him that there was likely to be a further loss of depth in the channel and at the bar prompting a change in his sailing advice. As it transpired, the afternoon tide on 13th December (i.e. the tide on which the vessel sailed) also failed to make prediction. As outlined in para. 18 above, the tide at the terminal recorded by the automatic tidal gauge fell short of the high tide predicted by the Drogheda Tide Tables. The latter predicted a tide of 6.84 metres at the terminal at 15:03 on that afternoon. It is clear from the evidence of Captain Donnelly on Day 5 (at Q. 54) that he had that prediction in mind when giving his advice to Mr. McGuinness on the evening of 12th December. But, allowing for 2.2 metres CD, the automatic gauge records that the actual height of the tide at the terminal at 14:57 on that day was 6.36 metres while the height at 15:07 was 6.70 metres. Those figures suggest a cut of between 0.48 metres and 0.14 metres. It should be noted, however, that a higher tide was recorded a little later that afternoon. At 15:27 (some 24 minutes later than the Drogheda Tide Tables prediction for high tide) and also at 15:37 (34 minutes after the time predicted in the Drogheda

Tide Tables for high tide) the tide reached 6.73 metres which is 0.11 metres short of the high tide predicted by the Tide Tables to occur at 15:03 on that day.

182. In the course of the cross-examination of Captain Donnelly, he acknowledged that he did not have regard to the tidal gauge readings and he accepted that the tides discussed above did not make prediction. He also acknowledged that the tidal gauge readings were available to him on his mobile phone. However, he strongly rejected any suggestion that it would have been appropriate for him to have had regard to the readings. His evidence was that the forecast was for strong south easterly winds and barometric pressure was not high, such that his expectation was that the tide would make or exceed prediction. By way of example, he said that on Day 4 of the hearing, the tide that day was 0.16 metres higher than predicted with very similar winds and notwithstanding higher barometric pressure. When it was put to him that the tidal gauge readings for 11th and 12th December showed four successive cuts in the tide notwithstanding south easterly winds, his response was that: *"it's quite possible and happens on a regular basis, that a morning tide will make the prediction but an evening tide could cut prediction or make over the prediction".* There is no contrary evidence in the case. Nor was any scientific evidence put before the court to suggest that, where there is a succession of lower than predicted tides, this gives rise to an expectation that the next tide will follow the same pattern.

183. The emails described above of May and October 2018 in relation to the *Swami* and the *Arklow Rainbow* were also put to Captain Donnelly. In those cases, he plainly had regard to cuts in the relevant tides when proposing a maximum sailing draft for those vessels. However, Captain Donnelly explained that, in contrast to the present case, the cuts in the tide described in those emails took place in the context of

northerly winds which are well recognised as a factor liable to give rise to a failure to meet a tide prediction for Drogheda port.

184. In my view, there is no basis to find a breach of duty against the port company arising from the fact that the harbour master did not have regard to the automatic tidal gauge readings when setting the maximum permissible draught for the vessel. As noted in para. 182 above, there is no evidence to suggest that a succession of tides failing to meet prediction will necessarily continue. The only evidence I have about experience in Drogheda port is that it is not unusual for one tide to fail to meet prediction and the next to meet or exceed prediction. Furthermore, the weather conditions predicted were not such as to suggest a cut in the afternoon tide on 13th December. On the contrary, as the Admiralty Sailing Directions and the other material available in relation to the port make clear, the weather that was forecast for 13th December was precisely the type of weather that was likely to lead to the tide exceeding prediction. The emails relating to the *Swami* and the *Arklow Rainbow* do not undermine that conclusion in any way. They were written when the weather conditions forecast were, according to all of the available information in relation to the port, liable to lead to a cut in the tide. In contrast to the present case, it is entirely understandable that the harbour master in those cases would have regard to near contemporaneous cuts in the tide experienced in the port.

185. The issues raised by the plaintiffs about the real time information in relation to tides are nonetheless very relevant for a different reason. This real time information was available to those in charge of the vessel when it departed from the terminal on 13th December. The information was available from at least three sources. The readings from the automatic gauge were available to the pilot on his mobile phone. Secondly, the master of the vessel and the pilot also had access to the visual tidal

gauge displayed outside the port company's offices on the opposite side of the river from the terminal. In addition, both the master and the pilot had visual access to the tidal gauge sited closer to the bar, namely the gauge situated about 300 to 400 metres from the bar which the vessel would pass on the outward voyage before crossing the bar. To the extent that there was a cut in the tide on which the vessel sailed, this is an issue that will have to be considered in the context of the conduct of the master and the pilot and also in the context of causation.

Was there a failure by the harbour master to have regard to the weather?

186. While this allegation is made in the statement of claim and is repeated in the closing submissions of the plaintiffs, it has not been developed in any significant way and I do not believe that it requires to be addressed at any length. What is clear is that, following the Met Éireann weather forecast broadcast on RTÉ radio on the evening of 12th December, the harbour master was prompted to anticipate an additional loss of depth of 0.20 metres requiring him to set the maximum permissible sailing draught at 6 metres. I address further below the case made by the plaintiffs that this estimate was incorrect. The only finding I make at this point is that no sufficient case has been established that there was a failure by the port company to have regard to the weather. In addition, it must also be borne in mind that the weather forecast and prevailing weather conditions are matters that were readily available to or observable by the master of the vessel and the pilot. They were not matters that were within the peculiar knowledge of the port company and its harbour master. Having regard to the fact that the 1995 Act requires that consideration be given to the steps which a visitor can reasonably be expected to take for his or her own safety, I believe that an occupier of premises such as the port company is entitled to expect that mariners using the port

will themselves take the basis step of considering the potential impact of weather conditions, both actual and predicted.

The preparations for the outward voyage and the decision to sail

187. Having considered the complaints made by the plaintiffs in relation to the steps taken by the port company prior to the sailing of the vessel, it is next necessary to consider some relevant aspects of the preparations for the outward voyage made by the master and the pilot. In this context, there is no dispute between the parties that the vessel completed loading the cargo of 4,478 metric tonnes of cement at 01:50 on 13th December. It will therefore be seen that the call by the harbour master to Mr. McGuinness at 18:58 on 12th December, 2018 to set a maximum permissible sailing draft took place well before loading was complete. It is clear from the evidence of Mr. McGuinness that he, in turn, promptly passed this information to the master, Captain Traktatov, at 19:05. There was never any intention to sail immediately because a cargo of this kind takes some time to settle in the hold. The pre-loading checklist dated 11th December, 2018 specified that there should be 12 hours settling time for the cargo. For that reason, it was always envisaged that the vessel would take advantage of the afternoon high tide on 13th December which, as previously noted, was predicted by the Drogheda Tide Tables to make 6.84 metres at the terminal at 15:03. However, in accordance with what appears to be a common shipping practice in the port, the intention was to sail shortly in advance of the high tide. This practice proceeds on the basis that, should a ship run into difficulty while exiting a port, advantage can be taken of the still rising tide to assist in clearing the difficulty. As noted, in para. 21 above, the evidence of Captain Breach was that the standard practice in the port with

laden ships is to depart with a view to sailing over the bar approximately 30 minutes before high tide.

188. At 10:11 on the morning of 13th December, Mr McGuinness circulated the email (previously discussed) in which he recorded the maximum permissible sailing draught of 6 metres, salt water, even keel. The reference to salt water is important. The vessel's berth at the terminal was not in salt water. All parties agreed that the water experienced there is brackish in nature. In other words, it has some element of salinity but it is not as dense as sea water. Accordingly, the draught of the vessel at the terminal would be expected to be deeper than in salt water. Before the vessel sailed, it was therefore necessary to calculate the salt water draught of the vessel. In order to do so, one needed an accurate measurement of the draught of the vessel at the berth and also an accurate assessment of the density of the water at that location. As I understand it, the salt water draught can then be calculated by multiplying (a) the figure measured for the density of the water by (b) the draught of the vessel at the berth and (c) dividing the result by the density of sea water, the density in each case being measured in kilogrammes per cubic metre. Captain McJury explained that the measurement is a relatively straightforward exercise usually undertaken by the chief officer on board a vessel by taking a sample of a bucket of water at the berth and measuring its density using a hydrometer.

189. In this case, the evidence of Captain Traktatov was that, on arrival at the terminal and at six hourly intervals thereafter, the chief officer or the second officer (depending on which of them was on loading watch) checked the density of the water at the terminal. The density was also checked before departure. This was done by lowering the hydrometer over the side of the vessel and dropping it *"down mid draught"*. The only written records of this measurement are contained in the *"Draft*

Survey" which records the density measured on arrival and on departure. According to the survey document, the density of the water at the terminal on arrival of the vessel was 1,004 kg/m3 and on departure was 1,006 kg/m3. This is lower than the density which Captain Donnelly suggests is typical of this location. According to his evidence, the typical water density encountered at the terminal is between 1,010 and 1,012 kg/m3. The potential significance of this is that, if the water at the terminal had a higher density than measured by the crew of the vessel, this will mean that the salt water draught will correspondingly be deeper, meaning that the under keel clearance will, accordingly, be reduced. However, like the results of the six hourly checks which Captain Traktatov mentioned, Captain Donnelly did not refer to any records which supported his evidence as to the typical density at the terminal. In addition, Captain Walton gave evidence that the level of salinity at the terminal may well have been affected by the extent of recent rainfall which, in turn, may have led to a higher proportion of fresh water at this tidal location. In these circumstances, and given that the taking of a density measurement is a straightforward exercise, there is no basis to conclude that the density measurements recorded in the *"Draft Survey"* are materially inaccurate. I will therefore proceed on the basis that, in terms of the salt water draught calculation, the relevant measurement of density of the water at the terminal was1,006 kg/m3.

190. In so far as the measurement of the vessel's draught is concerned, this was the subject of significant cross-examination by counsel for the port company at the hearing which was designed to undermine the reliability of the measurements taken by the crew of the vessel and which are recorded in the *"Draft Survey".* There, the measurements given are 5.98 metres fore and 6 metres aft. Curiously, the measurements given in the trim and stability calculation (which forms part of the pre-

departure suite of documents generated by the crew) gives a slightly different measurement of 5.993 metres fore and 5.987 metres aft. Captain Conlon was cross-examined as to how the draughts could accurately be measured to the millimetre in this way but the difference between those figures and the results recorded in the *"Draft Survey"* were not explored. The port company also raised an issue as to when the trim and stability analysis was undertaken and its counsel has highlighted that the printed copy made available is dated 14th December, 2018 (i.e. the day after departure). However, the straightforward explanation is that this is simply the date on which the printed document was generated. While Captain McJury has said that he would have expected this report to have been printed in advance of sailing, I do not believe that this is significant particularly in circumstances where the vessel was equipped with computer equipment which must have enabled the calculation to be reviewed on screen at the time it was recorded.

191. In any event, a very clear description was given by Captain Conlon as to the method in which the draught measurements would be taken by the crew by reference to the welded studs on the side of the vessel which are placed at 0.20 metre intervals. His evidence, under cross-examination, was that the draught marks can be read to the nearest centimetre. Thus, it would be possible to arrive at a reasonably accurate measurement. Ultimately, I do not believe that very much turns on this issue in circumstances where, for the purposes of calculating the salt water draught of the vessel, the plaintiffs were prepared to proceed on the basis of the highest measurement recorded at the terminal namely 6 metres. The plaintiffs did not seek to rely on the slightly lower figure recorded in the trim and stability calculation. Both Captain Walton and Captain McJury accepted that, on the basis of a draught of 6 metres at the terminal and a water density of 1,006 kg/m3 at that location, the salt

water draught of the vessel would be 5.89 metres. On that basis, if the harbour master's calculation of the anticipated loss of depth of 0.50 metres at the bar was correct, the plaintiffs contended that the vessel should have had sufficient under keel clearance to safely navigate the bar. This calculation was made on the basis of the height of the high tide predicted by the Drogheda Tide Tables for the terminal of 6.84 metres at 15:03 on 13th December. On this basis, there would be a depth of 6.34 metres of water available at the bar (assuming that the tidal conditions there are the same as at the terminal and assuming that Captain Donnelly was correct in anticipating a further loss of depth of 0.20 metres on top of the 0.30 metres loss recorded in the Ceeducer survey). On that basis, taking the salt water draught of 5.89 metres, the vessel should have had an under keel clearance of 0.45 metres which would exceed the port's recommended clearance of 0.30 metres. On a purely arithmetical basis, Captain McJury accepted that these figures are correct. However, the matter is not so straightforward. This calculation rests on a number of assumptions that require to be tested. These include the actual state of the tide (which, in turn, will have an impact on the depth of water available to accommodate the draught of the vessel) and a number of other dynamic conditions which could potentially affect the draught of the vessel including the density of the water at the bar and the phenomena of squat and heeling.

192. The port company has also questioned whether any calculation of the expected under keel clearance at the bar was, in fact, carried out by Captain Traktatov prior to the departure of the vessel on 13th December. In this context, no written record of that calculation exists. Furthermore, it is striking that Captain Traktatov said nothing in his witness statement or in his direct evidence about carrying out this calculation. Nor was it mentioned in the statement he made on 16th December, 2018 following the

grounding. He also appears not to have mentioned it in his face to face meeting with Captain Walton in August, 2020. The first time he mentioned it was in the course of his cross-examination on Day 3 when he said:-

> *"We are received our available depths, 6.34. And this under keel clearance for our size of vessel… is 30cm. But I loaded the vessel in a brackish water for 6m exactly maximum. And draught for the sea water at the bar, on the entrance to the sea should be reduced to 5.89. And let's say and our available depths for 6.34 minus our draught 5.89, it's mean under keel clearance of 45cm."*

I find it difficult to accept that, if this calculation had been carried out at the time, Captain Traktatov would not have highlighted it in his statement made on 16th December, 2018 and in his witness statement in these proceedings. This raises a significant issue in relation to the credibility of Captain Traktatov especially in circumstances where, in his witness statement as delivered in these proceedings, he was confused as to the salt and fresh water draughts. Until it was corrected at the commencement of his direct evidence on Day 3, para. 32 of his witness statement suggested a complete misunderstanding of the position which is evident from what was originally stated in that paragraph as quoted below (the corrections being shown in bold and in parenthesis):-

> *"Once cargo operations were completed … my sailing draft (salt water)* **[corrected on Day 3 to read *'brackish water'*]** *was exactly 6.0 metres aft and 5.98 metres fore. I checked the draft myself at approximately 0800 ship's time after the cargo of cement had time to settle. As it was 6.0 metres salt water* **[corrected on Day 3 to read: *'brackish water'*]** *… this would rise outside in fresh* **[corrected on Day 3 to read: *'salt'*]** *water giving more than sufficient clearance based on the draft requested by the Harbour Master".*

In the course of his cross-examination, it was quite correctly suggested to Captain Traktatov that this paragraph, in its uncorrected state, contained a fundamental mistake. Captain Traktatov acknowledged that it was the *"biggest mistake"* but was unable to explain how it occurred and, rather lamely and unconvincingly, attributed the errors to his computer.

193. These were not the only errors in the witness statement that had to be corrected. There were more than 12 others. For example, in para. 28, Captain Traktatov suggested that the maximum sailing draught of the vessel is 6.54 metres. This was plainly wrong. As noted in para. 139 above, the vessel could never have safely sailed at a draught of 6.54 metres, even in the absence of a loss of depth at the bar, and this was conceded by the plaintiffs. At the commencement of his evidence, Captain Traktatov corrected para. 28 of his witness statement to amend the reference to 6.54 metres to read 6.23 metres. When pressed on this in the course of cross-examination, Captain Traktatov was unable to explain how this error arose. His only answer was to say that it was just a mistake.

194. In opening the case, counsel for the plaintiffs noted that there were a number of mistakes in Captain Traktatov's witness statement that would have to corrected when the master came to give his evidence and he submitted that such corrections are not uncommon. I acknowledge that, in my experience, it is not unusual for a witness to have to correct errors in a witness statement. However, in this case, there was an unusually large number of errors that had to be corrected by Captain Traktatov and several of them related to significant pieces of information relevant to the safe navigation of the vessel including, for example, his description of the maximum sailing draught of the vessel and also, as described in para. 193 above, his description of the interrelationship between the fresh and salt water draughts of the vessel. It is

true that some of the errors may have arisen due to the fact that English is not Captain Traktatov's first language. It was clear from the way in which he gave his evidence that his knowledge of English is patchy. However, if it is difficult to see how that would explain the errors in para. 32 of his statement. In turn, this raises a further issue in relation to his credibility. In the course of his cross-examination, he maintained that he wrote the witness statement himself. I cannot accept that. The fluidity of its language together with the syntax and grammar used in the witness statement could not be reconciled with the way in which Captain Traktatov expressed himself when giving his oral testimony and the obvious difficulty he had, from time to time, both in understanding some of the questions and in articulating his answers.

195. All of these considerations raise a significant doubt as to Captain Traktatov's evidence in relation to whether he carried out a calculation of the salt water draught. However, while the issue of his credibility will need to be kept in mind more generally, I am inclined to give Captain Traktatov the benefit of the doubt in relation to this particular issue. I do so in circumstances where a somewhat similar issue arises in relation to the way this question was addressed by the pilot, Captain Breach, whose evidence was tendered by the port company at the trial. In his statement made on 17th December, 2018, following the grounding, Captain Breach said nothing about carrying out any calculation of a draught for the vessel prior to departure. Nor did he mention it in his witness statement in these proceedings. The first time he mentioned it was in his direct evidence on Day 6 when he briefly mentioned that: *"I did my calculations, I felt that it was okay to sail"*. He expanded on this in the course of his cross-examination during which he observed that *"the vessel on the quay was 6m. That's 5.9 in salt water"*. While this is one centimetre deeper than the calculation made by Captain Traktatov, both witnesses say they made a similar calculation and

neither of them mentioned having done so until they were sitting in the witness box (albeit a virtual one on this occasion). In these circumstances, I believe there is some force in the submission made by counsel for the plaintiffs that the making of such calculations are probably so obvious and routine to experienced navigators that it might not occur to them that it is necessary to expressly confirm that they had undertaken such a basic and usually uncontroversial step. As previously mentioned, the formula used to make that calculation is a standard one and could not be said to be complicated. In these circumstances, I am prepared to accept that, before departure, both Captain Traktatov and Captain Breach carried out a calculation of the salt water of the vessel with the former arriving at a figure of 5.89 metres and the latter arriving at a figure of 5.9 metres.

196. The port company has raised a number of other issues in relation to some of the documents put in place prior to the departure of the vessel including the pre-loading certificate jointly signed by Captain Traktatov and Ms. Maeve McGuinness of KC Shipping on 11th December, 2018 in which the maximum permitted sailing draught for the vessel was originally stated to be 6.54 metres which is incorrect. It was amended by Mr. Fergal McGuinness in manuscript to read 6.22 metres which approximately equates to the maximum winter draught of the vessel which, as noted in para. 4 above, is 6.23 metres. The port company has raised questions in relation to when this change was made and have suggested that Captain Traktatov may have signed a document which, on its face (prior to amendment) recorded a draught which was manifestly unsafe. In this context, it is unclear from the evidence given by Mr. McGuinness as to when the change was made. This error as to the draught appears to have stemmed from the calculation made by Mr. McGuinness (and repeated in the unamended version of the pre-loading check list) in his email of 10th December, 2018,

where, having referred to the tide of 6.84 metres predicted for the terminal at 15:03 on 13th December, Mr. McGuinness suggested that this would allow a maximum sailing draught of 6.54 metres. The latter figure appears to have been calculated by simply deducting the recommended 0.30 metres under keel clearance from the predicted high tide without any regard for the individual characteristics of the vessel. It must be borne in mind that Mr. McGuinness is not a mariner and has no qualification or expertise in the setting of draughts. While Captain Traktatov was somewhat shaky in his recollection on Day 4 as to when he first saw this document, his ultimate evidence was that he saw it on board the vessel and that it had already been amended in manuscript at that point. I am not sure how Captain Traktatov could have recalled that point of detail so long after the event. I must also keep in mind that, as explained above, Captain Traktatov signed his witness statement which, prior to its amendment on Day 3 of the hearing, stated in para. 28 that he expected the vessel to load to a maximum draught of 6.54 metres, salt water. In the circumstances, I believe that Captain Traktatov may well have signed the pre-loading check list without noting that the maximum draught was overstated. In common with the litany of errors contained in his witness statement, this demonstrates that Captain Traktatov does not carefully analyse or consider documents prepared by others for his signature. Nevertheless, I have not been persuaded that Captain Traktatov was ignorant of the limits of the winter sailing draught of the vessel. In the course of his cross-examination on this issue. Captain Traktatov readily identified that a draught of 6.54 metres would not be permissible and that the maximum permissible winter draught of the vessel was either 6.22 or 6.23 metres (as to which he was, admittedly, uncertain).

197. Issues were also raised by both sides as to whether there was an adequate interchange between Captain Traktatov and the pilot, Captain Breach, after the latter

boarded the vessel at the terminal and before the departure of the vessel and, if so, which of them was responsible for its brevity (lasting between 5 and 10 minutes). In his witness statement, Captain Traktatov suggested that Captain Breach did not discuss anything about the depth at the bar or reveal that the last survey was on 10th December. He also stated that neither Captain Breach nor anyone else gave him the option not to sail until a further survey of the bar had been carried out *"or even suggested that this might be prudent or necessary".* In addition, he said that he did not recall being told by Captain Breach that he might have to disembark from the vessel onto the pilot boat before crossing the bar. In response, Captain Breach said that he met Captain Traktatov on the bridge of the vessel where, together, they went through the outbound pilot's passage plan (which had been completed by the second officer) and both signed it. He was adamant that there had been sufficient time for a master/pilot exchange. He was also firm in his evidence that he explained to Captain Traktatov that he might have to disembark before the vessel crossed the bar. In circumstances where Captain Traktatov, as the master of the vessel, remained in command at all times and where, as matter of law, Captain Breach, as pilot, is deemed to be the agent of the plaintiffs, I am not convinced that it is necessary to resolve all of these issues as between these two mariners. The reality is that the plaintiffs must take responsibility for the actions of both of the pilot and the master in so far as the navigation of the vessel is concerned. For that reason, I do not propose to deal with these issues except to the extent that they are relevant in outlining the facts relating to the vessel's departure voyage and the grounding.

The issues raised in relation to some of the documents executed prior to the departure of the vessel

198. Among the documents completed in advance of departure were a statement of facts signed by Captain Traktatov and Ms. Maeve McGuinness and an outbound pilot passage plan compiled by the second officer and signed by Captain Traktatov and Captain Breach. The statement of facts recorded that the next available tide was at 15:03 and, under the heading *"General remarks",* recorded the statement previously contained in the email sent at 10:11 by Mr. Fergal McGuinness that: *"Due to severe SE winds during the night and the potential impact on the Bar outside, the Harbour Master cut the maximum sailing draught to 6 metres, salt water, even keel".* The potential impact of the overnight winds on the bar was therefore again flagged to Captain Traktatov.

199. In so far as the outbound pilot passage plan is concerned, it recorded the draught of the vessel at 6 metres although it is obvious that a different figure had earlier been entered. The amendment was signed by the second officer. The plan also gave figures for the anticipated under keel clearance at both the berth and the river but nothing was said about clearance at the bar. For the river, the anticipated under keel clearance was stated to be one metre but I do not know how that figure was arrived at. Under cross examination, Captain Traktatov was unable to explain it. It could not be correct because it would suggest a depth of water of 7.00 metres in the river which was not predicted in any of the tide tables. Later, on re-examination, Captain Traktatov attempted to explain it by reference to the under keel clearance that would be available at the terminal. However, his attempted explanation is very unclear and, in carrying out his calculations, he took into account a water density of 1,004 kgs/m3 at the terminal which was the density recorded on 11th December, 2018 rather than

1,006 kgs/m3 which was the density recorded on the day of departure. In addition, he ultimately arrived at two conflicting calculations, at one point estimating that the clearance at that location would be 0.95 metres and, at another point, saying that the clearance would be 0.85 metres. Both calculations are, in any event, somewhat short of one metre.

200. Captain Traktatov was also unable to explain why the outbound plan contained no calculation of the anticipated under keel clearance at the bar notwithstanding that he acknowledged that the bar was the *"most important place"* in terms of under keel clearance on the outward passage from Drogheda and notwithstanding the express statement in an accompanying document executed prior to departure that Captain Traktatov had reviewed the passage plan.

201. A further significant feature of the outbound pilot passage plan is the information given in relation to the tides. The document contains a box where information should be recorded in relation to the time, height and location of both high and low tide. In each case, the words *"see pages attached"* have been entered in the box. However, the pages attached are not taken from the Drogheda Tide Tables. Instead, they are an extract from the Admiralty Tide Tables for the River Boyne entrance for (*inter alia*) 13th December, 2018. The relevant figures in those tables for present purposes are those given for the high tide predicted for that afternoon at the entrance to the river and the timing of that tide. In contrast to the Drogheda Tide Tables prediction of 6.84 metres for 15:03 at the terminal, the Admiralty tables predict the high tide to be 4.50 metres at the entrance (which equates to 6.70 metres when 2.20 metres CD is added). The Admiralty tables also predict that the highest tide would be at 16:08 more than one hour after the Drogheda Tide Tables prediction for the terminal. As it happened, the tide predicted in the Admiralty tables is much closer

to the level of the highest tide actually recorded that afternoon by the automatic gauge located outside the port company's offices on the southern bank of the river opposite the terminal. The automatic gauge recorded a tide of 4.50 metres (which equates to 6.70 metres when corrected 2.20 metres CD) at 15:07 on that day. This increased slightly to 4.52 metres (or 6.72 metres when 2.20 metres CD is taken into account) at 15:17 and 4.53 metres (i.e. 6.73 metres when adjusted for 2.20 metres CD) at 15:27 and again at 15:37 before declining to 4.49 metres (or 6.71 metres when adjusted) at 15:47.

202. The reason why the Admiralty tables were attached to the outbound passage plan was not explored in the course of the hearing. The calculations as to the salt water draught of the vessel and consequent anticipated under keel clearance made by both Captain Traktatov and Captain Breach were premised on the tide of 6.84 metres predicted by the Drogheda Tide Tables for 15:03 at the terminal. They were also the tables consulted by Captain Donnelly at the time of his telephone call to Mr. McGuinness on the evening of 12th December to warn of the likely further loss of depth of 0.20 metres. It is striking that all three should use the Drogheda Tide Tables rather than the Admiralty tables although it is only the latter which purports to give a prediction for the high tide at the entrance to the River Boyne from the sea. The predictions in the former are all given with reference to points (including the terminal) which are a considerable distance upriver from the entrance. Nonetheless, as a matter of practice at the port, the tide predicted for the terminal appears to be used, as a proxy for the tide at the bar.

The departure of the vessel

203. In order to provide the necessary pilotage services, Captain Breach boarded the vessel at the terminal at 13:40 on 13th December, 2018. According to the automatic tidal gauge, the tide had reached 3.99 metres at that time. When one adds 2.20 metres CD, the total height of the water at the terminal at that point was 6.19 metres. Captain Breach went straight to the bridge where a relatively short exchange took place between him and Captain Traktatov which included a review of the outbound passage plan discussed above. While Captain Breach frankly did not recall the detail of his discussion with Captain Traktatov, his evidence was that the conversation was detailed although he acknowledged that he did not discuss the results of the survey of 10th December which showed losses of depth in the channel. Whatever the nature of the discussion, it is clear that Captain Breach did not pick up on the anomalies identified above in relation to certain features of the outbound passage plan (such as the lack of any reference to the anticipated under keel clearance at the bar or the use of the Admiralty tide tables). However, that may be because Captain Breach carried out his own calculations as to the under keel clearance which he anticipated would be available at the bar. Captain Breach was quite forceful in his evidence that he *"took no one else's word for it. I calculated it myself".* He explained that, by his calculations, the vessel should have an under keel clearance of 0.44 metres at the bar but that he also estimated that the effect of squat would be to reduce this clearance by a further 0.13 metres, leaving a total under keel clearance of 0.31 metres. This figure took into account (a) the high tide of 6.84 metres predicted by the Drogheda Tide Tables for the terminal at 15:03 that afternoon, (b) a loss of depth at the bar of 0.50 metres and (c) a salt water draught of 5.90 metres (which was his calculation). Captain Breach was not asked to explain how he came up with his

calculation of 0.13 metres for squat. However, for the reasons explained in more detail in para. 232 below, Captain Breach was correct in taking the effect of squat into account as a factor that would increase the draught of the vessel.

204. In addition, Captain Breach told Captain Traktatov that, depending on the information available from those on board the pilot boat, he might have to disembark from the vessel before the bar. Although Captain Traktatov does not recall this, I believe that it is likely that Captain Breach passed on this information. The pilot boat in use on the occasion in question was operating on one engine only and, as a consequence, was not very manoeuvrable. There appears to have been a safety concern about taking the boat beyond the bar in those circumstances. The possibility that Captain Breach might have to disembark in such circumstances was addressed on the evening before in a telephone conversation between Captain Breach and the harbour master. As recorded in Captain Breach's statement made on 17th December, after the grounding, the harbour master recommended that Captain Breach should discuss the issue with the master of the vessel and that, if it was necessary to disembark, to do so at the Tower Beacon *"thus giving plenty of time to establish good communication with the master in advance of passing outward between the breakwaters".*

205. At 13:50, the last line was cleared and the vessel moved off from its berth and sailed down river from the terminal. This was more than one hour in advance of the high tide predicted by the Drogheda Tide Tables for 15:03. It appears to have been anticipated that the vessel would reach the bar approximately 30 minutes before the predicted high tide. As noted above, the evidence of Captain Breach was that it was standard practice in the port for a laden ship to sail over the bar approximately 30 minutes prior to the predicted high tide. As it happened, the Drogheda Tide Tables

prediction for high tide was wrong both in terms of the height and the timing of high tide.

206. The automatic gauge shows that, at 13:47, the tide had reached 4.08 metres which equates to 6.28 metres when account is taken of 2.20 metres CD. Given that the vessel had a draught of 6.00 metres at the terminal, the under keel clearance at this point would have been a little less than the 0.30 metres minimum under keel clearance policy in operation at the port. By 13:57, the tide measured by the automatic gauge had risen to 4.16 metres (which translates to a total height of water of 6.36 metres). As noted earlier, the automatic tide readings were available to Captain Breach on his mobile phone. In addition, the visual tidal gauge on the river outside the port company's office, was also available to both Captain Breach and Captain Traktatov. The latter made no reference in his evidence to checking the visual gauge. In the course of his evidence, Captain Breach made a passing reference to checking the gauge but no one probed him to clarify whether this was the automatic gauge or the visual gauge. However, given that both are located outside the port company's office, it appears reasonable to assume that the reading on both would be the same.

207. In so far as the weather conditions are concerned, the outbound passage plan suggested that the winds were *"SW 6/5"*. All parties accept that the reference to *"SW"* is wrong and that it should have referred to south easterly winds. In his direct evidence, Captain Breach also suggested that the force of the winds should have been recorded as *"5/6"* rather than the converse. However, on cross-examination, he agreed that the it was possible that the weather forecast was indicating that the wind was likely to moderate from a force 6 to a force 5. That would certainly be consistent with the weather conditions actually experienced on that day. As explained in para. 113 above, the mean wind speeds experienced on 13th December, 2018 were in the

range of force 5 to 6 on the Beaufort scale with the strongest winds in the morning to early afternoon on that day.

208. The outward passage of the vessel was uneventful up to the point that Captain Breach disembarked onto the pilot boat. Prior to doing so, Captain Breach radioed the pilot boat and was informed by his colleagues on board that he should disembark at the Tower Light in circumstances where it was considered that it would be too dangerous for him to disembark on the seaward side of the bar. The intention was that the pilot boat would follow the vessel in the direction of the bar with Captain Breach continuing to give guidance to Captain Traktatov by VHF radio. There is no evidence that, either before or after disembarking Captain Breach checked the level of the tide by reference to the tidal gauge mounted on the northern side of the channel which, as described in para. 122 above, is situated approximately 300 to 400 metres upriver from the bar. Nor is there any evidence that Captain Traktatov did so notwithstanding that the existence of this gauge is specifically mentioned on p. 91 of the Admiralty Sailing Directions. Captain Breach says that he disembarked the vessel at 14:27. However, by reference to the ECDIS, it is likely that he did so a little earlier. In his report, Captain McJury explained that the ECDIS shows that, the speed of the vessel, after passing the Carrick beacon, slowed to 2.6 knots at 14:19:09 and began to increase speed again at 14:19:59. I believe that Captain McJury is correct in suggesting that the pilot disembarked between those times. That manoeuvre would be safer at a lower speed and Captain McJury's view chimes with the evidence of Captain Breach that the vessel slowed to a speed of 2 to 3 knots to allow him to disembark. At 14:19:59, the vessel had not quite reached the Tower Light.

209. The ECDIS shows that the vessel began to pick up speed after 14:19:59. This is consistent with the statement made by Captain Breach on 17th December, 2018 in

which he said that, as he disembarked, he advised Captain Traktatov to increase the speed to 4-5 knots as the vessel headed towards the bar. This is also consistent with what was said by Captain Traktatov in his statement made on 16th December, 2018 where he said that he kept the speed of the vessel at 4 to 5 knots according to advice received by VHF radio from the pilot. It is also consistent with the ECDIS record which shows that the vessel was travelling at 5 knots (over the ground) at the time of the grounding. On Day 4, the plaintiffs' expert, Captain Walton, under-cross examination accepted that the vessel's speed through the water would be less than that and he agreed that it was probably 4.5 knots through the water. It should be recalled in this context that, according to the Wheelhouse Poster (discussed in paras. 106 to 110 above, the squat of the vessel at that speed will lead to an increase in the vessel's draught. The increase will also depend to some extent on the available under keel clearance. The estimate given in the poster is that, at a speed of 4 knots, the increase in draught will vary from 0.10 metres (where the under keel clearance equates to 30% of the draught) to 0.11 metres (where the under keel clearance is 10%). At higher speeds, the increase in draught will be greater although the poster does not give an estimate for a speed of 5 knots. The poster also shows that the draught will increase further in the event of heeling of the vessel.

The manner in which the grounding occurred

210. The ECDIS record demonstrates that, following the disembarkation of Captain Breach, the vessel steered a course just south of the centre of the channel. This was in line with the advice given to Captain Traktatov by Captain Breach who was, of course aware, that the Ceeducer survey of 10th December, 2018 showed a more extensive loss of depth in the green sector to the north. This advice is recorded in Captain

Traktatov's statement of 17th December, 2018 in which he stated that: *"Recommendation from pilot to keep course a little bit closer to S-ly breakwater due to SE-ly swell"*. The ECDIS shows that the vessel passed the Tower Beacon at 14:23. The Tower Beacon is a little upriver from the breakwaters (sometimes described as *"training walls"*) on either side of the estuary. The ECDIS also shows the progress of the vessel between the northern and southern breakwaters. According to the evidence I have heard, the grounding of the vessel occurred between 14:29 and 14:30. The ECDIS identifies that, at 14:28:30, the vessel passed the Aleria beacon at the end of the northern breakwater but had yet to pass the Lyons light at the tip of the southern breakwater. At 14:28:50, the vessel was correctly positioned a little to the south of the centre line of the channel. As counsel for the plaintiffs confirmed in his opening submission on Day 1, the ECDIS appears to show that the bow of the vessel moved past the Lyons light by 14:29. That is how I, too, would read the ECDIS. When one brings the ECDIS to 14:28:50, the bow appears to me to have already passed to the east of the Lyons light. If so, the bow was now beyond whatever protection might be available from the southern breakwater. The grounding of the vessel occurred almost immediately thereafter. There was general agreement that the grounding occurred at 14:29 or within a fraction of a second of that time. The statement made by Captain Breach on 17th December, 2018 also supports the conclusion that the grounding occurred to the east of the Lyons light. In that statement, he said that, at 14:30, Captain Traktatov reported to him that the vessel *"was aground approximately 10-15M east of Lyons light"*.

211. According to Captain Traktatov, the vessel was not rolling, pitching or heeling prior to the grounding. Nor, was it suggested to him during cross-examination that the vessel was experiencing any of those phenomena. That said, as outlined in paras. 193

to 194 above, there are issues in relation to the credibility of Captain Traktatov. On the other hand, it is true that, when it came to Captain Breach's evidence, he said nothing about such phenomena either. However, the issue was reopened in the course of Captain McJury's cross-examination and, in response to questions put to him by counsel for the plaintiffs, he suggested that the rolling of the vessel which can be seen in the short video footage taken at about 14:55 by the second officer on his mobile phone subsequent to the grounding was likely to have been more pronounced before the grounding. It was suggested to him by counsel for the plaintiffs that the propensity of the vessel to roll was likely to be completely different after the grounding but he responded that: *"one of the differences certainly would be that the vessel is now sitting on the ground, so any roll which it had been experiencing… is probably actually going to be less, because* it's *now restricted from rolling and pitching by the fact that it's on the ground"*. In this context, the evidence of Captain Flood is relevant. As noted previously, he gave unchallenged evidence that there was a swell of about 2 metres at the breakwaters. Furthermore, on Day 4, the plaintiffs' marine superintendent, Captain Conlon, while maintaining that there would be no rolling while the vessel was in the shelter of the river, acknowledged that there might be some rolling where the river meets the sea *"depending on the direction and height of the swell"*. This seems logical in the context of a vessel beginning to emerge from the shelter of the southern breakwater and encountering a 2 metre swell and a south easterly wind of force 5 or 6 on the Beaufort scale.

212. However, in his first report, Captain Walton suggested that, at the moment of grounding, the vessel was still between the Aleria beacon at the tip of the northern breakwater and the Lyons light at the easternmost point of the southern breakwater. For the reasons outlined above, I believe that this is an erroneous reading of the

ECDIS. Furthermore, even if it were the case that the bow had not yet passed the Lyons light, it appears to be likely that the bow of the vessel was already exposed to the south easterly running sea. Under cross-examination, Captain Walton acknowledged that this was possible. In his evidence, Captain McJury's view was that the effects of the *"prevailing waves and swell"* would have *"reached within the breakwater to some degree … it's not the case that it just stops because there's a breakwater there …"*. Given that it is clear that the vessel had, at minimum, reached very close to the tip of the southern breakwater, I believe that the view expressed by Captain McJury is likely to be correct.

213. It is important to consider the state of the tide at the moment of grounding. The reading of the tide (as recorded by the automatic gauge opposite the terminal) which is most proximate to the moment of grounding is that for 14:27. Based on the reading of 4.34 metres at this time, this would give a 6.54 metre depth of water at the terminal. On the assumption that the level of the tide at the bar was similar, that would leave a depth of 6.24 metres at the bar, based on the results of the Ceeducer survey of 10th December. If the estimate made by the harbour master of a further loss of depth of 0.20 metres was correct, the depth of water available at the bar would be further reduced to 6.04 metres. The next most proximate reading of the tide after the grounding is that recorded at 14:37 when it had risen slightly to 6.60 metres. Again, on the assumption that the level of the tide at the bar was similar, this would result in a maximum depth of water at the bar of 6.10 metres if the harbour master's estimate of a further loss of depth was correct. Whether one takes the reading at 14:27 or 14:37, the under keel clearance available was only a fraction of the calculations made by Captain Breach and Captain Traktatov before departure. This is an issue to which I return in para. 228 below.

The aftermath of the grounding

214. In circumstances where the port company did not ultimately pursue its complaints in relation to the plaintiffs' conduct following the grounding (including the attempts to refloat the vessel) it is unnecessary to address in detail many of the events which followed the grounding. However, some of the post grounding events are relevant. In the immediate aftermath of the grounding, the vessel continued to operate the main engine ahead but the bow thruster went into alarm condition. According to Captain Walton, it was likely that the bow thruster became blocked with sand with the result that it was immobilised. Captain Traktatov's evidence was that, at 14:30, Captain Breach instructed him to let go to starboard and to try and manoeuvre the vessel south of the central line. His evidence also was that, at 15:00, Captain Breach instructed him to let go the starboard anchor. He explained that he tried to keep the vessel south of the centre line of the channel by steering hard to starboard but that the vessel was *"jumping as it touched the ground and the swell was pushing the vessel to the north breakwater".* As noted in para. 210 above, there was a short video taken by the second officer on his mobile phone at about 14:55 which shows that the vessel was rolling to some extent at that time. The plaintiffs maintain that this can be explained by the fact that the vessel was aground and no longer moving forward through the water. As noted above, Captain McJury takes the opposite view. At 14:54:01 and for a time thereafter, the ECDIS shows that the bow of the vessel had been pushed to the port towards the northern breakwater and the vessel was now lying on a NE-SW axis. This suggests a significant south-easterly swell was operating against the starboard side of the vessel pushing the bow in that way.

215. There was some debate as to whether the vessel was hard aground immediately after the grounding. The plaintiffs suggested that it was. As outlined in more detail in paras. 237 to 238 below, they relied on calculations made by Captain Walton in his first report as to the available depth that suggested such a loss of depth at the bar that the vessel must have been fully aground on striking the bar. Furthermore, the evidence of Captain Conlon was that the vessel was *"aground a lot. I mean the ECDIS clearly* [shows] *that ship hit a wall, an underwater wall"* on reaching the bar. He also maintained, in the course of his direct examination, that a ship with the characteristics of the vessel would take between 8 and 10 minutes to stop when fully loaded, the implication being that something very substantial must have stopped the vessel so suddenly here. However, his evidence on the issue was substantially undermined on cross-examination when the objective information available from the Wheelhouse poster was put to him. It is apparent from the poster that, on a *"crashstop",* the vessel, when laden, would be expected to come to a stop within 99 seconds at slow speed, within 137 seconds at half speed or within 154 seconds at full speed. Given the speed of the vessel at the time of the grounding, it is the lower end of that scale which is relevant. It would not, therefore be surprising that the vessel should come to a relatively sudden stop. Equally, such a sudden stop would not necessarily be indicative that the vessel was then hard aground.

216. Furthermore, it is noteworthy that Captain Traktatov did not suggest that the vessel was hard aground at this stage. As described in para. 217 below, his evidence was that it was at a later point in the afternoon that the vessel was hard aground. At that point, the vessel was in a different position. By then, the vessel had crossed to the shallow bank to the north of the dredged channel. Captain Breach's evidence is also relevant. According to him, the vessel went aground amidships. At the conclusion of

his evidence, I asked him to explain his view. His response was that, based on what he had seen from the pilot boat (which he estimated was no more than 10 metres behind the vessel at the time of the grounding), the bow and the stern seemed to be rotating, so it looked to him that:-

> *"the bow was getting pushed with the wind, so it wasn't grounded forward. And the stern was moving, so it wasn't grounded aft."*

He nonetheless acknowledged that it could have been the case that the vessel:-

> *"grounded forward and with the momentum, the bow then came afloat… so I'm not sure. Like it's often the case with a vessel like that that when they squat, they squat by the head."*

The fact that the vessel was grounded amidships is also supported by the evidence of Captain Traktatov that the vessel was *"jumping"* which clearly suggests that the vessel was not hard aground at this point. In light of the evidence of Captain Breach and Captain Traktatov, I believe that there is a proper basis to conclude that, while the bow may initially have hit the bed of the channel, the vessel, at this point in the afternoon, was on the ground amidships and was not aground from bow to stern. That is consistent with the view of Captain McJury who, on Day 6, drew attention to the fact that the impact damage was observed at midships. His view was that the vessel had probably slid over the bottom. I agree that this is, most likely, what occurred.

217. According to Captain Traktatov, he was instructed by Captain Breach at 15:10 to weigh the starboard anchor which had previously been dropped *"as he thought we could try to pick up speed to get over the bar".* By that time, as the ECDIS confirms, the bow of the vessel had been successfully aligned with the centre of the channel. However, although Captain Traktatov weighed the anchor as instructed, that proved to be unsuccessful in getting the vessel wholly over the bar. Yet, as explained further in

para. 218 below, the vessel did move forward briefly. Regrettably, by 15:30 local time, things had got worse. It was at that point that Captain Traktatov said that the vessel was *"hard aground"* and he decided to drop the starboard anchor again. By that stage, the vessel was lying north of the channel and perpendicular to it.

218. Nonetheless, what happened in the period immediately after the weighing of the anchor is illuminating. The ECDIS shows that the vessel did briefly move forward along the line of the channel in the period between 15:10:12 and 15:10:42. Captain McJury estimated that the vessel moved almost a ship's length ahead during that period. The ECDIS also shows that the vessel picked up speed in the period from 15:10:12 to 15:11:32 albeit that, at some point between 15:10:42 to 15:10:52, the bow of the vessel began to move to port onto the northern side of the channel where, as the results of the Ceeducer survey of 10th December show, there was likely to be less depth of water available.

219. The ECDIS records that, in the period before the weighing of the starboard anchor, the vessel was not moving forward. No such movement is visible on screen. Moreover, the ECDIS records that the speed over the ground was no more than 0.10 knots between 15:09:32 and 15:09:52 which is so inconsequential that it may simply reflect the fact that the engine was running rather than any measurement of movement. However, between 15:10:02 and 15:10:12, the ECDIS shows that the speed over the ground had increased to 0.20 knots. A further increase to 0.40 knots is recorded at 15:10:22 and the same speed is recorded at 15:10:32. By 15:10:42, this has increased to 1 knot. By 15:10:52, there is a further increase to 1.1 knots. This has increased to 1.4 knots by 15:11:02, rising to 1.6 knots 10 seconds later at 15:11:12. The increase in speed continued for another few seconds; by 15:11:22, the speed over the ground recorded was 1.8 knots and, by 15:11:32, the speed recorded was 1.9

knots. However, by that time the vessel had veered to the port and into the shallower water on the northern side of the channel. Thereafter, the speed decreased such that, by 15:14:12, the ECDIS recorded the vessel's speed over the ground at 0.20 knots. By that time, the vessel was already lying to the north of the channel. By 15:15:52, the speed recorded was 0.10 knots and at 15:16:52 the ECDIS recorded the speed as 0.00 knots meaning that the vessel was plainly stationery by that time which is consistent with the evidence of Captain Traktatov, that the vessel was hard aground although the ECDIS suggests that this may have occurred earlier than 15:30. While there are moments over the course of the next hour when the ECDIS records a speed over the ground, the speeds recorded are very low and probably reflect the fact that the vessel continued to be pushed by the wind and swell. There is no pattern similar to that in the brief period immediately after the starboard anchor was weighed which suggested a sustained increase in the speed of the vessel over the ground and a brief forward movement along the channel.

220. The timing of the forward movement of the vessel described in paras. 218 to 219 above is striking when regard is had to the state of the tide at that time as recorded by the automatic gauge. In the intervening period since the moment of the grounding at 14:29, the tide (as recorded by the automatic gauge) had risen by 0.16 metres. The tide recorded at 15:07 was 4.50 metres which equates to 6.70 metres when account is taken of 2.2 metres CD which is 0.14 metres short of the tide predicted by the Drogheda Tide Tables for 15:03. The tide continued to rise for a time thereafter, the highest tides being those recorded at 15:27 and 15:37 when a level of 6.73 metres was reached.

221. I do not believe that it is necessary to address the remainder of the post grounding period in any detail. It should, nevertheless, be noted that the vessel

remained north of the dredged channel until successfully re-floated at 16:30 on 14th December, 2018 with the assistance of two tugs. The tide recorded by the automatic gauge immediately beforehand was slightly lower than the tide recorded immediately before the grounding on 13th December, by which point it had reached 6.54 metres. When account is taken of 2.2 metres CD, the tide at 16:07 on 14th December was 6.53 metres and this dropped slightly to 6.50 metres at 16:27. Notwithstanding that repairs were required, the vessel was able to sail, once re-floated.

The survey of 16th December, 2018

222. On 16th December, 2018, a further bathymetric survey was carried out which showed that further siltation had taken place since the survey of 10th December. The results of that survey were not discussed in detail in the course of the oral evidence but, according to Captain Walton, the results showed that the depth of water at the bar had *"decreased down to about 1.25 to 1.5 metres at chart datum".* The evidence of Captain Donnelly was that the additional loss of depth was of the order of 1.40 to 1.50 metres which Captain Donnelly characterised as *"at the very high end of loss of depth in Drogheda".* His view was that the loss was attributable to two factors, namely the weather conditions (particularly over the course of the night of 14th December into 15th December when gale force south easterly winds were encountered) and the churning of the bottom as a consequence of the attempts made to re-float the vessel. Under cross-examination, he highlighted that the 16th December survey identified areas where the depth at chart datum had increased to as much as 4 metres (which he said was unprecedented for Drogheda). Captain Donnelly maintained that this altered the *"sediment"* around the bar. As outlined further below, that evidence is supported by the expert view of Captain McJury. While strong objection was taken by counsel

for the plaintiffs to the port company's reliance on Captain Donnelly's evidence to this effect, I do not believe that there is any proper basis on which to exclude it. The evidence was given in response to questions raised in the course of cross-examination and Captain Donnelly's answers were plainly relevant to the questions posed. On the other hand, counsel for the plaintiffs was clearly right in criticising one aspect of Captain Donnelly's evidence about the impact of the vessel on the distribution of silt. In this context, Captain Donnelly, at one point, sought to suggest that the pattern of siltation was altered by reason of the vessel lying across the channel perpendicular to the breakwaters. That suggestion was plainly erroneous as he ultimately had to concede under cross-examination. The ECDIS confirms that the vessel never lay in such a position across the channel.

223. However, Captain Donnelly's evidence about the weather over the course of 14th and 15th December is amply supported by the Met Éireann weather reports. They show that there were fresh to strong south easterly winds of between 14 and 20 knots (i.e. force 4 to 5 on the Beaufort scale) in the morning of 14th December which increased in the afternoon to strong to near gale force of between 24 to 30 knots (i.e. force 6 to 7 on the Beaufort scale). Conditions deteriorated on 15th December as *"Storm Deirdre"* swept past with what are described in the report as strong south-easterly winds at first, backing westerly during the evening and increasing to near gale (with mean wind speeds of 15 to 25 knots i.e. force 4 to 6) occasionally reaching gale force with mean wind speeds of 33 knots (i.e. force 8) in the late evening. While the reports suggest that the stronger winds on 15th December came from the west, Met Éireann also provided a wind rose pictorial plotting the hourly wind direction as recorded at Dublin Airport. The wind rose shows that, consistently between 10th and 15th December, the wind direction was at all times from the south east and did not

veer west until 16th December. As explained earlier, south easterly winds are the most relevant in terms of silt accretion at the bar.

224. It should also be noted that, following the survey on 16th December, Captain Donnelly issued an email addressed to all port users stating that: *Following the very severe south and south easterly gales, a temporary draft restriction of 1.2m is now in place on the tidal predictions"* (underlining in original) and advising that, in addition, masters should allow sufficient under keel clearance. The email recorded that dredging equipment was *en route* and was scheduled to commence work on the following day.

The cause of the grounding

225. The cause of the grounding is an issue of central importance both in terms of the plaintiffs' case that the harbour master's advice as to maximum sailing draught was incorrect and also in relation to the case made that there was a failure by the port company to take reasonable care to ensure that the vessel did not suffer damage by reason of the danger created by the bar. In considering the cause of the grounding, it is necessary to consider a number of factors – in particular the likely depth of water available at the bar at the time of the grounding (taking account of the level of the tide at that time) and also the likely draught of the vessel at that time (taking account of any relevant factors that are likely to affect the draught). In so far as the depth of water is concerned, the tides predicted in the Drogheda Tide Tables are not relevant. The tides recorded by the automatic gauge demonstrate that the Drogheda Tide Tables for 13th December, 2018 were far off the mark both in terms of the timing of the high tide that afternoon and in terms of its height. The relevant range of depths of the tide actually recorded by the automatic gauge on that afternoon are those in the period

between 14:27 and 14:37 namely those described in para. 213 above. Assuming that the height of the tide at the bar was similar and assuming that the loss of depth on the southern side of the bar was no more than 0.50 metres (based on a combination of the loss recorded on 10th December and on the harbour master's subsequent estimate of a further loss of 0.20 metres on 12th December) the range runs from 6.04 metres at 14:27 to 6.10 metres at 14:37.

226. Regrettably, there is no direct evidence as to whether the level of the tide at the bar was the same as that recorded by the automatic gauge across the river from the terminal. The effect of the evidence given by Captain Donnelly on Day 5 might suggest that the level of the tide at the automatic gauge could not be used as a reliable proxy for the level of the tide at the bar which is, as he stressed, 5.5 kilometres downriver from the gauge. He also suggested that, because the location of the automatic gauge is *"more subject to… fresh water"* that *"the level could be slightly higher than the level at the mouth of the river depending on the time of the tide"*. While he said that it would be possible to work out the tidal position at the bar from the reading given by the gauge *"within say 5 to 8cm",* he did not explain why there should be such a significant margin of error. Nor did he explain how he came up with that range of figures from 5 to 8 centimetres. To the extent that he contended that there could be a difference between them, he also provided no estimate of the level of the tide at the bar that could be derived from the reading given by the gauge, subject to that margin of error. Accordingly, Captain Donnelly's evidence on this issue (such as it is) could not form the basis of any finding by me.

227. There is, however, extensive evidence which demonstrates that, as a matter of practice, the depth of the tide at the terminal is used as a proxy for the depth to be expected at the bar. This is clear, for example, from the evidence of Captain Breach.

He used the Drogheda Tide Tables for the purposes of his calculation of the under keel clearance which he expected the vessel would have on crossing the bar. It is also clear from several aspects of Captain Donnelly's evidence on Day 5 both at Q. 326 and, again, at Q. 357, Captain Donnelly said that, in his recommendation to Mr. McGuinness on the evening of 12th December, he took into account that the tide would make prediction. It is plain from his evidence as a whole that, when he spoke of the tide making prediction, he had in mind the prediction made by the Drogheda Tide Tables for the state of the tide at the terminal. Notably, those tables make no express prediction for the state of the tide at the bar. Yet, he used the prediction for the terminal for the purposes of making his recommendation as to the maximum sailing draught and there can be no doubt that the maximum sailing draught was set with the bar in mind. He gave his advice as to the draught precisely because the 10th December survey showed a loss of depth at the bar of 0.30 metres and, overnight, he anticipated a further loss of depth of 0.20 metres at the same location. Given Captain Donnelly's long experience at the helm of Drogheda port and his intimate knowledge of the port, it is, in my view, inconceivable that the harbour master would use the tide prediction for the terminal for the purposes of calculating the maximum sailing draught at the bar if there was any concern that the level of the tide at the latter would be materially different to the level at the terminal. Moreover, it is clear that the exercise undertaken by him on the evening of 12th December was not an isolated or unprecedented incident. For example, the evidence also shows that a similar approach underpinned his calculations in so far as the *Aastum* is concerned. That vessel was due to arrive in Drogheda in October, 2018. At Q. 304 on Day 5, Captain Donnelly confirmed that, in the context of his email of 26th October to Mr. McGuinness (in which he indicated that the permitted sailing draught was 6.25 metres), he had

consulted the tide tables (which, as outlined above) gave no prediction for the tide at the bar. Against this backdrop, I believe that it is appropriate to proceed on the basis that, as a matter of probability, the height of the tide at the terminal will not differ materially from the height of the tide at the bar. It follows that, for the purposes of making findings in relation to the cause of the grounding, the tidal readings recorded by the automatic gauge across the river from the terminal can be used as a proxy for the level of the tide at the bar.

228. On the basis that the tidal readings at the automatic gauge can be used as a proxy for the height of the tide at the bar, the relevant readings to be kept in mind are those for the period between the time when the vessel sailed from the terminal at 13:50 to just before the grounding at 14:29. As previously noted, there is no evidence that either Captain Breach or Captain Traktatov monitored the height of the tide during the period after departure of the vessel from the terminal. In the course of his evidence on Day 6, Captain Breach made a passing reference to having checked *"the gauge"* but that is as far as the evidence goes. This evidence was not probed further at the hearing and I do not know whether Captain Breach had the automatic gauge in mind (which was available to him on his mobile phone) or the visual gauge mounted across the river from the terminal. Crucially, both he and Captain Traktatov were aware that the vessel would, in due course, have to pass over the bar. Captain Breach also knew that it was anticipated that there was a loss of depth of 0.50 metres at the bar. In the case of Captain Traktatov, it appears from his evidence on Day 3 that his understanding was that the harbour master had cut the permissible sailing draught by 0.50 metres by reason of a concern about the impact of siltation. Accordingly, on the basis of the information available to them, both of them were aware that the depth of water was likely to be reduced to a significant extent. Before departure, they had each

done their calculations taking that loss of depth into account and, based on a high tide of 6.84 metres at 15:03 as predicted in the Drogheda Tide Tables, both of them had independently concluded that it was safe to sail on the basis that there would be a safe under keel clearance of either 0.44 metres (in the case of Captain Breach) or 0.45 metres (in the case of Captain Traktatov). In considering their actions, I must bear in mind that, at the moment of departure from the terminal, the tide reading may not have been a cause of immediate concern. After all, the evidence is that it is the practice in the port that laden vessels sail from the terminal at about 30 minutes before the predicted high tide. But, the automatic gauge continued to be accessible after the vessel sailed from the terminal; there were tidal readings recorded every 10 minutes by the automatic gauge. There were three readings in the period between 13:57 and 14:17 all of which demonstrated that the tide was well below the prediction of 6.84 metres used by both men in their calculations of under keel clearance. The height of the tide at 13:57 was 6.36 metres, at 14:07, it was 6.41 metres and, at 14:17, it was 6.48 metres. Based on a salt water draught of 5.89 metres (with no allowance for squat) and an anticipated loss of depth of 0.50 metres, had the tidal gauge readings been consulted at any of these times, they would have immediately disclosed that the calculations of under keel clearance (on foot of which both Captain Traktatov and Captain Breach had each considered it safe to sail) were seriously out of step with the actual condition of the tide. Had the automatic gauge been checked at 13:57, the depth available (when the 0.50 metre anticipated loss is factored into the equation) was only 5.86 metres which could not accommodate the expected salt water draught of the vessel. At that point, they were still some distance from the bar. However, had it been checked at 14:07, the result would have been little better: there would have been 0.02 metres clearance at the bar based on the information available to them. By 14:17, the

vessel was within 10 minutes of the bar. By that time, the tide had risen to 6.48 metres which was 0.36 metres short of the 6.84 metre prediction used by them to calculate the under keel clearance. On the basis of that reading and all of the other information available to them, there was no more than 0.09 metres clearance on the basis of the expected salt water draught. This was no more than one fifth of the clearance which they had expected. At this point in this judgment, I am concerned solely with causation. However, even looking at the matter in that narrow way, the question starkly arises as to whether the grounding of the vessel would have occurred had a check been made of the automatic gauge during the course of the downriver voyage. Had such a check been made, it would have illustrated that the calculations made by both men were seriously out of kilter with the real time tidal conditions on the river and would have demonstrated to them that the under keel clearance which they expected to find was simply unavailable. It must also be the case that the tidal gauge on the northern side of the channel *en route* to the bar would have told a similar story and revealed the sheer extent of the loss of depth in the tide.

229. Even if one were to take the last reading on the automatic gauge before the grounding – namely that recorded at 14:27 when the vessel was already perilously close to the bar – the same question arises just as starkly. By that point, the recorded tide had risen by 0.06 metres to 6.54 metres which, based on the anticipated loss of depth of 0.50 metres, would have signalled to both men that there was, at best, 0.15 metres clearance available. That was some 66.66% less than the clearance they expected to find based on their pre-departure calculations. When one takes into account the effects of dynamic factors such as squat and possibly also some element of heeling (as the vessel approached the bar and was exposed, to some extent, to the open sea), it is difficult to think that any responsible mariner would have attempted to

cross the bar in such circumstances. All of that said, I would be reluctant to decide the issue of fault on that basis. I am very conscious that the automatic tidal gauge readings were not made available until Captain Donnelly came to give his evidence on Day 4 and accordingly did not feature in the examination and cross-examination of Captain Traktatov. Nor did they feature in the evidence of Captain Breach on Day 6 although they were available to both sides at that stage. In those circumstances, I do not believe that it would be appropriate to make adverse findings against either Captain Traktatov or Captain Breach on the basis of the readings. Nonetheless, the readings are very relevant to the issue of causation and they were addressed by both sides in their closing submissions. It will therefore be necessary to return to the issue of the height of the tide at a later point in the causation analysis.

230. The next relevant issue in the context of causation is the likely draught of the vessel at the time of the grounding. As outlined above, the calculations made by both Captain Traktatov and Captain Breach were based on the assumption that the vessel would be in salt water by the time it reached the bar. However, the highest tide recorded on the afternoon of 13th December was that recorded at 15:27 (namely 6.73 metres) almost an hour after the grounding. The fact that the tide was behind prediction both in terms of height and time is obviously significant in terms of the height of water available at the bar at the time of the grounding. It is also potentially relevant to the draught of the vessel at the point of crossing the bar.

231. The plaintiffs' case has been put forward on the basis that, as a matter of probability, the density of the water at the bar would be equivalent to seawater. It is on that basis that the plaintiffs contend that the draught of vessel should be taken to be 5.89 metres at the moment of the grounding rather than 6 metres which was the maximum draught measured while the vessel was still moored at the terminal. In this

context, it appears that there was a general assumption among port users that, at high tide, there will be salt water at the bar. I believe it is safe to infer that this is why, for example, the harbour master in his conversation with Mr. McGuinness on the evening of 12th December, specified a maximum sailing draught by reference to salt water. However, given that the grounding occurred one hour before high tide, it becomes more difficult to assume that, in an estuarine situation where the fresh water in the river flows out to sea, the water at the bar is necessarily all salt water particularly in circumstances where, as Captain Walton noted on Day 4, there had been significant rainfall which had the effect, for example, that the water at the terminal had a lower density than normal. That said, Captain Walton's evidence was that, on a rising tide, the water at the bar should be flowing inward with the tide. That is as far as the evidence goes. There is no objective scientific evidence available as to the actual density of the water at the bar at the time of the grounding. No one took a density reading at that time. Given that the master and crew were addressing the immediate impact of the grounding, this is entirely understandable. However, it creates an element of uncertainty as to the correct figure to be taken for the draught of the vessel at the time of the grounding. Bearing in mind the onus of proof which lies on the plaintiffs, can it be assumed that the water at the bar had the normal density of salt water one hour before high tide? No tests were carried out by the plaintiffs, for example, in the period between the grounding and the trial to test the density of the water at the bar in the run up to high tides. Such evidence may have assisted in identifying whether or not the density of water at the bar is usually similar to sea water by one hour before high tide. The absence of such evidence adds an element of uncertainty which will have to be factored into the final conclusion on causation.

232. Another factor that must be taken into account is the likely impact on the draught of the vessel caused by the phenomenon of squat. As previously noted, the likely speed of the vessel through the water was 4.5 knots at the time of the grounding. The speed over the ground was between 4 and 5 knots. Based on the information contained in the Wheelhouse Poster in relation to a speed of 4 knots with under keel clearance of between 10% and 30% of the draught, this would, at minimum, increase the draught of the vessel by between 0.10 to 0.11 metres. It should be noted that, as discussed in para. 108 above, the increase in the draught will become more pronounced where the under keel clearance (measured as a percentage of the draught) is reduced. Thus, the extent of the draught of the vessel would be likely to be greater than 0.10 to 0.11 metres where the under keel clearance was no more than 0.15 metres (which, by my calculation, is about 2.55 % of a 5.89 metres draught, assuming the latter figure to be accurate). It should also be noted that the range of figures in the Wheelhouse Poster are lower than the estimates made by a colleague of Captain Walton as recorded in para. 7.7.7 of the latter's first report. Nonetheless, for the purpose of the present exercise, if one takes the lower figure for the increase in draught (namely 0.10 metres), then, on the assumption that the water at the bar was solely salt water, this would increase the draught of the vessel at the time of the grounding to 5.99 metres. For the reasons discussed in para. 231 above and in circumstances where Captain Walton's colleague arrived at a significantly higher range of values, this may, very well, be an underestimate. Even if it is not an underestimate, it starkly illustrates that, if the total loss of depth of 0.50 metres was correct, the under keel clearance available for the vessel (without taking account of any further factors such as heel) was significantly less than the 0.45 metres calculated by Captain Traktatov or the 0.44 metres calculated by Captain Breach. Instead, it

would be no more than somewhere in the range between 0.05 to 0.11 metres depending on whether one takes the tidal reading recorded at 14:27 or 14:37. Given that the former is closer to the time of the grounding, the under keel clearance would be closer to 0.05 metres than 0.11 metres. Furthermore, both would fall well short of the port company's 0.30 metres under keel clearance policy.

233. For completeness, it should be noted that, in their closing submissions, counsel for the plaintiffs argued that the port company's 0.30 metres under keel clearance policy already took account of squat and that this was acknowledged by Captain Donnelly under cross-examination on Day 5. This argument appears to have been advanced with a view to suggesting that squat should not be separately taken into account as a factor in considering the cause of the grounding. I reject any such suggestion. For the reasons discussed in para. 232 above, the speed of the vessel through the water gives rise to an increase in draught. That increase has to be factored into any analysis of the cause of the grounding. Moreover, I do not believe that there is any basis to conclude that the port company's under keel clearance policy takes account of the particular effects of squat as outlined in the Wheelhouse Poster which are specific to the vessel. The effects outlined there are the result of tests undertaken in relation to the vessel and are peculiar to the vessel. There is no sufficiently persuasive evidence to suggest that Captain Donnelly or any other officer or employee of the port company was aware – or could reasonably be required to be aware – of the results recorded in the poster. While, at one point, Captain Walton appeared to suggest that the port company should be aware of vessel specific information of that kind, his cross-examination on Day 4 (at Qs. 383 to 390) established that he accepted that this was not so. In so far as Captain Donnelly's cross examination on this issue is concerned, the plaintiffs, in my view, have not properly characterised his evidence in

relation to the factors underlying the port company's under keel clearance policy of 0.30 metres. The most that can be said is that the under keel clearance policy aims to take account of a range of dynamic factors that can have an impact on the draught of a ship. But the margin of 0.30 metres set by the port company does not seek to attribute a specific value to any of the individual dynamic factors concerned. It is clear from the evidence of Captain McJury on Day 6 that this is consistent with similar policies adopted by other port companies and that the reasons underpinning such a policy take account of many different variables including variations in levels of competency. According to Captain McJury, squat is just one factor rolled into the formula and that it would not be possible to scientifically identify how much of the 0.30 metres could be said to be attributable to squat. In any event, the analysis undertaken by me in para. 232 above is not based on the 0.30 under keel clearance set by the port company. Instead, it seeks to identify the effect of squat on the draught of the vessel by reference to known factors specific to the vessel, in particular the speed of the vessel immediately before the grounding and the results of the sea trials carried out in preparing the Wheelhouse Poster.

234. As described in para. 232 above, when one takes squat into account (as I believe one must), the under keel clearance, immediately before the grounding, is reduced to close to 0.05 metres. While that might suggest that the vessel could have scraped over the bar, the margin for error was so tight as to call into question how that could be safely achieved particularly in circumstances where, as the vessel approached the end of the breakwaters, the effects of the sea (with the 2 metre swell described by Captain Flood) began to be felt. The impact of the sea and the swell become even more likely in circumstances where, as the ECDIS shows, the bow of the vessel had moved beyond the tip of the southern breakwater at the time of the

grounding and was now exposed to the south easterly wind. The December 2018 statement of Captain Breach (which he stressed on Day 6 was written at a time when he had a better recollection of events than when he came to give his evidence at the trial) also supports that view. While the evidence of Captain Traktatov was that the vessel was not rolling, I find it very difficult to accept that the vessel was not affected in any way by its exposure to the sea at the time of the grounding such as to cause it to heel to some degree. As noted in para. 110 above, according to the Wheelhouse Poster, a heel angle of no more than 2º would be enough to increase the draught of the vessel by as much as 0.24 metres. Thus, even an almost imperceptible heel of a fraction of one degree might be enough to increase the draught if only very slightly. When the margin for error available is no more than 0.05 metres, any small increase in the draught could have devastating consequences.

235. In their closing submissions, the plaintiffs sought to overcome the difficulty caused by the phenomenon of squat by suggesting that, once the vessel grounded, squat would no longer be a feature as the vessel was no longer moving through the water. The plaintiffs submitted that the fact that the vessel remained grounded even after the squat factor dissipated must mean that the loss of depth was greater than had been predicted by Captain Donnelly. They relied on the evidence of Captain Walton on Day 4 to the effect that, once the vessel was stopped, the effect of squat dissipates. In their submissions, the plaintiffs went further than Captain Walton and added that *"the fact that the Vessel was unable to clear the sand bar on a rising tide, when it had no speed is … further evidence that squat was not a critical feature in the case"*. However, this argument overlooks the fact that, once the vessel grounded, as the evidence of Captain Traktatov and the mobile phone video footage confirmed, the vessel was undoubtedly subject to a rolling action. Captain Traktatov described the

vessel as *"jumping"*. Thus, the vessel was plainly subject to additional forces likely to increase the draught as the Wheelhouse Poster confirms. The plaintiffs' argument also fails to take into account the evidence discussed above that, once the starboard anchor was weighed at about 15:10, the vessel did move forward along the channel for at least one length before, regrettably, the bow veered to port and thereby moved to the northern side of the channel (and ultimately beyond the channel) where the water was known to be shallower by reference to the Ceeducer survey of 10th December. This shows that, once the constriction of the anchor was removed, the vessel did rise on the tide and briefly cleared the bar. By that stage, the bow thruster had become clogged with material from the bottom and Captain Walton suggested in his first report that this was likely to make it more difficult to maintain position in line with the centre of the channel. Once the vessel veered to the shallower water to port (i.e. on the northern side of the channel), it was more likely to go hard aground.

236. Notwithstanding the difficulties outlined above, the plaintiffs make the case that the most likely cause of the grounding is something else – namely an inaccurate estimate of the loss of depth made by Captain Donnelly on the evening of 12th December and relayed to Mr. McGuinness that same evening. They contend that, on the balance of probabilities, that estimate was wrong and that there had, in fact, been a greater accretion of silt over the course of the period between 10th and 13th December than Captain Donnelly had anticipated when making his estimate.

237. In making the case that Captain Donnelly's estimate was wrong, the plaintiffs rely on the evidence of Captain Walton. In his first report, Captain Walton carried out an exercise that sought to estimate the level of accretion of silt at the time of the grounding by taking a midpoint between the results shown in the Ceeducer survey carried out on 10th December, 2019 and the results of the subsequent survey carried

out on 16th December. On that basis, Captain Walton estimated that the depth at chart datum on 13th December at the bar ranged from 1.70 to as low as 1.48 metres (the latter representing a loss of depth which is approximately 0.22 metres greater than that predicted by the harbour master). To these, he added the height of the highest tide predicted in the Admiralty Tide Tables (namely 4.50 metres) giving available depths of between 6.20 and 5.98 metres. However, when squat was taken into account (by reference to calculations undertaken by a naval architect colleague which are significantly higher than those used by me in para. 232 above), Captain Walton estimated that there would be no under keel clearance available for the vessel either at chart datum depths of 1.70 or 1.48 metres.

238. Crucially, no scientific basis has been identified for taking a midpoint between the depths recorded by the surveys on 10th and 16th December. Captain Walton merely suggested that taking this approach would provide a *"reasonable estimate"* of the level of siltation at the bar at the time of the grounding on 13th December. However, under cross-examination on Day 4, he frankly acknowledged that he has no expertise in siltation. He is not a hydrographer or an oceanographer. The plaintiffs did not call any expert to address the pattern of siltation that might be expected at the bar flowing from the weather conditions experienced in the period between the survey of 10th December and the time of the grounding on 13th December or in the subsequent period between the grounding and the survey of 16th December. This was so notwithstanding that the plaintiffs sought and obtained an order for discovery against the port company requiring (*inter alia*) the disclosure of all hydrostatic, hydrographic and bathymetric surveys carried out over a two-year period prior to the grounding and also all surveys and measurements of depths in the channel between 13th and 31st December, 2018. Under cross-examination on Day 4, Captain Walton accepted that,

while he had examined a lot of this material for 2018, he had not undertaken any forensic analysis of the development of siltation on other occasions when depth was lost. Thus, his approach has been to simply assume that the accretion of silt is likely to have occurred in a purely linear way over the course of the period between 10th and 16th December, 2018. That approach is not only unsupported by any science but ignores the fact that, subsequent to 13th December, the weather conditions were even more conducive to the build-up of silt at the bar than the conditions experienced in the days immediately preceding the grounding. Over the course of 14th and 15th December, 2018, there were more significant winds than those experienced in the days immediately prior to the grounding. This is apparent from the Met Éireann materials discussed in para. 173 above (in so far as the pre-grounding period is concerned) and in para. 223 (dealing with the post grounding period up to 16th December). Those materials show that, while the winds reached speeds of as much as 25 knots (force 6 on the Beaufort scale) for parts of the evening and night of 12th December and up to the early afternoon on 13th December, the winds in the days following 13th December were more severe. On the morning of 14th December, the winds were fresh to strong with means speeds of between 14 and 20 knots but, in the afternoon, they increased significantly. The mean speeds for the afternoon were described as near gale, 24 to 30 knots. The latter took the windspeed into force 7 on the Beaufort scale. Strong winds continued on the morning of 15th December with mean speeds of 15 to 25 knots (force 4 to 6 on the Beaufort scale) but the position deteriorated further that afternoon when speeds reached as much as 33 knots (force 7 on the Beaufort scale) occasionally reaching gale force (which would mean that there were times when the wind reached a speed of at least 34 knots i.e. force 8 on the Beaufort scale). While the Met Éireann estimates suggest that the wind veered to the

west for a period on 15th December, the wind rose pictorial (discussed in para. 223 above) does not support that suggestion. It shows that throughout 15th December and on the preceding day, the winds came from the south east as they had on each of the preceding three days. That trend did not continue on 16th December when the winds were south westerly. On that basis, 16th December is not likely to have added to the accretion of silt at the bar.

239. The contrast between the wind speeds encountered before the grounding (over the course of 11th, 12th and part of 13th December) and afterwards (on 14th and 15th December) is well illustrated by the Met Éireann graphs plotting hourly wind speeds recorded, in one case, by reference solely to the speeds recorded at Buoy M2 and Dublin Airport and, in the other case, by reference to those two locations together with Dunsany, County Meath. The graphs show, very starkly, that wind speeds increased throughout the day on 14th December and that, by the end of that day, the speeds exceeded anything experienced in the three day period before the grounding. Even more significantly, the graphs show that the higher speeds recorded towards the end of 14th December continued for almost the whole of 15th December and reached speeds of as much as 35 knots (i.e. gale force 8) towards the end of the latter day. Given that the winds consistently came from the south-east, this wind pattern strongly suggests that, on the balance of probabilities, there would be a greater accretion of silt at the bar over the course of 14th and 15th December than over the course of 11th, 12th and 13th December. This is not a factor that was taken into account by Captain Walton in his reports. The views expressed in his report are also coloured by the fact that he had based his assessment of the impact of the weather in the period between 11th and 13th December not on the weather recorded by Met Éireann but on the sea area weather forecasts for the Irish Sea that period. Under cross-examination, he accepted

that the Met Éireann materials for that period (discussed in para. 173 above) showed significantly lower wind speeds than the forecasts. While Captain Walton did not accept that this undermined his conclusions, I cannot agree. In circumstances where the forecasts predicted stronger winds than were experienced, it is telling that Captain Walton relied on forecasts rather than on the Met Éireann records of the weather actually experienced at the three weather stations most proximate to Drogheda. In my view, this further undermines the approach adopted by Captain Walton.

240. Captain Walton also did not have regard to the potential impact which the attempts to refloat the vessel may have had on the distribution of silt in the vicinity of the bar. As noted in para. 222 above, the survey of 16th December identified areas where the depth at chart datum had increased to as much as 4 metres (which Captain Donnelly said was unprecedented for Drogheda port). This suggests that there was atypical migration of silt in the period between the survey on 10th December and the subsequent survey on 16th December. Captain Walton did not address this issue in his reports. One obvious factor may have been the impact of the attempts to refloat the vessel which involved the use of two tugs. As Captain McJury suggested in his second report at para. 2.9.3:-

> *"Two high power tugs were operating at high, and likely maximum, engine power in this area which will have created water thrust that can be expected to have disturbed and altered the seabed depths and shapes during this period to an unknown extent."*

He also referred to the extensive use of the vessel's own main engine in the period after the grounding. Captain McJury does not go so far as to suggest that these activities were the probable cause of the additional level of siltation measured in the channel in the survey of 16th December but they are plainly a factor that could have an

impact on the accretion of silt in the channel, as Captain Walton acknowledged under cross-examination. Given that the plaintiffs bear the burden of establishing causation, one would expect that their expert evidence would address all factors that have the potential to have an impact on the accretion of silt at the bar and to reach conclusions as to which of those factors did or did not contribute to the level of siltation found on 16th December. Regrettably, the evidence tendered by the plaintiffs in this case did not do so and instead sought to rely on the unscientific approach described above.

241. In light of the considerations outlined in paras. 238 to 240 above, I find that the plaintiffs have failed to prove that the loss of depth at the bar at the time of the grounding was greater than that predicted by the harbour master. The approach suggested by Captain Walton simply does not stand up to scrutiny. However, the plaintiffs also say that, in the absence of any survey undertaken between 10th and 13th December, the estimate of the anticipated loss of depth made by the harbour master on 12th December was itself based on insufficient information and that Captain Donnelly has failed to explain how he arrived at his estimate of 0.20 metres on top of the 0.30 metres disclosed in the survey of 10th December. In his evidence in chief, Captain Donnelly merely said, in very broad brush terms that: *"I'm dealing with the entrance… since April 2000, the weather the dredging, the many many surveys, so I feel I have a good understanding how the entrance behaves"*. Under cross-examination, he said that almost 400 surveys have been carried out since 2000. He did not explain in any detail how he arrived at his estimate of 0.20 metres. Counsel for the plaintiffs suggested to him that it was no more than a *"shot in the dark"*. However, Captain McJury, who is a very experienced harbour master himself (and the only independent expert who gave evidence with the benefit of such experience and qualifications) offered the view that Captain Donnelly's long experience of the bar

and the very substantial number of surveys undertaken would make him familiar with the build-up and flow of siltation. At the time of the grounding, Captain Donnelly had 18 years' experience of the behaviour of silt at the entrance to the harbour and was familiar with the impact of south easterly winds. Given those circumstances, Captain McJury was not surprised that Captain Donnelly should make an estimate of the likely level of accretion.

242. In this context, the plaintiffs have argued that an estimate could not plausibly be made of the loss of depth without an appropriate survey or, at the very least, soundings as to the depth at the bar. As noted in para. 168 above, the plaintiffs have sought to argue that, following the Ceeducer survey on 10th December, the port company should have continued to take soundings as to the available depth at the bar in the period between 11th December and the 13th December. However, for the reasons summarised in para. 176 above, I have already held that the port company had no reason to take soundings in the course of 11th December. While I have also held that there was scope for the weather on that day to lead to some accretion of silt at the bar and that the weather conditions on the morning of 12th December would not have prevented the taking of soundings to measure any such accretion, I have concluded, for the reasons explained in para. 174 above, that it would not have been feasible to take soundings in the afternoon of 12th December or in the first half of the day on 13th December (when conditions were more likely to lead to a greater level of silt accumulation than was the case on 11th December). In my view, the ability to take soundings on the morning of 12th December is unlikely to have made any appreciable difference. As explained in para. 176 above, the weather event on the afternoon and evening of 12th December which continued into 13th December was a more sustained event with significantly stronger winds for most of that period than those experienced

on 11th December. It is that period (during which the takings of soundings was not feasible) which is critical in terms of the accretion of silt. In turn, that raises another issue – namely whether, in circumstances where such soundings could not be taken, the harbour master should have prevented the vessel from leaving port until weather and sea conditions improved sufficiently to allow the port company to take further soundings. However, the case made by the plaintiffs to that effect runs into the very significant problem that, for the reasons explained in paras. 238 to 240 above, I have held that the plaintiffs have failed to prove that the 0.20 metre allowance was an underestimate of the loss of depth and, for the further reasons explained in para. 243 below, I have concluded that it cannot be inferred that the estimate made by the harbour master was incorrect. The estimate cannot therefore be assumed to be wrong. That being so, there is no sufficient basis to conclude that the port company should have prevented the vessel from leaving the port until there was an opportunity to carry out a further survey. If there is no proper basis to conclude that the estimate of the further loss of depth made by the harbour master was incorrect, there was no reason for the port company, on the basis of the other information available, to stop the vessel from sailing. As explained in paras. 182 to 184 above, in light of the weather forecast for south-easterly winds, there was no reason for the harbour master to conclude that the tide would not make prediction. In my view, the harbour master was also entitled to proceed on the basis that those in charge of the vessel would consider not only the predicted tide but also the state of the actual tide which was available to them from both (a) the visual gauges located opposite the terminal and some 300-400 metres upriver from the bar and (b) the automatic tidal gauge readings available on the pilot's mobile phone. He was also entitled to proceed on the basis that those in charge of the vessel would take appropriate account of all relevant dynamic factors

including the likely effect of squat and the effects of wind and swell as the vessel emerged from the protection of the southern breakwater.

243. Thus, while it is unhelpful that Captain Donnelly did not provide detail as to the how, in the absence of a further survey, he arrived at his estimate of 0.20 metres, I must keep in mind that the onus of proof lies on the plaintiffs. The onus is not transferred to the port company just because its principal witness did not provide a detailed explanation of how he arrived at his estimate of 0.20 metres. The fact remains that the plaintiffs have not produced any reliable evidence as to the likely depth of water available at the bar at the time of the grounding. Furthermore, notwithstanding the lack of any detailed explanation given by Captain Donnelly for his estimate, I do not believe that there is a sufficient basis to infer that his calculation of 0.20 metres is likely to have been mistaken. On the basis of the evidence before the court, there are, in fact, a range of other factors that, taken together, provide an equally (if not more) plausible reason for the grounding. In paras. 225 to 229 above, I have drawn attention to the way in which the high tide of 6.84 metres predicted in the Drogheda Tide Tables for 15:03 on 13th December (on which both Captain Traktatov and Captain Breach relied for the purposes of calculating a safe under keel clearance) was not achieved either in terms of height or timing. I have also highlighted that, as the vessel proceeded towards the bar, several readings became available from the automatic gauge (available on the mobile phones of all of the pilots) which clearly indicated that the available depth was significantly short of the 6.84 prediction. A visual guide as to the actual height of the tide was also available 300 to 400 metres upriver from the bar and there is no evidence that any attention was paid to it. Even if one solely takes the automatic gauge reading most proximate to the grounding, it showed that, without taking the effect of squat or any other dynamic factors into account, the under keel

clearance, on the basis of the 0.20 metres loss of depth estimated by the harbour master, was reduced to 0.15 metres which was 66.66 % less than the calculations made by Captains Traktatov and Breach and only 50% of the 0.30 metre under keel clearance set by the port company.

244. Furthermore, as outlined in para. 232 above, that calculation of 0.15 metres must be adjusted for the effect of squat which has the effect of increasing the draught of a ship in motion. Even taking the rate most favourable to the plaintiffs, this increased the draught of the vessel by, at least, 0.10 metres which means that, even before taking other factors into account, this reduces the under keel clearance of the vessel to close to 0.05 metres. As explained at para. 234 above, that margin for error is so tight as to call into question how the vessel could safely pass over the bar without hitting the seabed. This is all the more likely in circumstances where, as the ECDIS, shows, the grounding occurred after the bow of the vessel passed the tip of the southern breakwater thus exposing the bow to the effects of the sea and the two-metre swell described by Captain Flood. At that point, there was clearly a potential for some element of heeling which, as the Wheelhouse Poster confirms, would have increased the draught of the vessel further. While Captain Traktatov suggested the vessel was not rolling, I do not accept that the vessel was unaffected by exposure to the sea and swell. I therefore believe that, on the balance of probabilities, a further increase in the draught occurred immediately prior to grounding although I am not in a position to precisely estimate its extent. Nonetheless, given that a 2^{o} angle of heel will, according to the Wheelhouse poster, give rise to 0.24 metre increase in draught, I believe that it is reasonable to conclude that the impact of the sea on the bow immediately prior to grounding could readily have increased the draught by 0.05

metres or more. Given the cut in the tide and the effect of squat, such a small increase is all that was required to lead inevitably to the vessel hitting the bottom.

245. In addition, for the reasons explained in paras. 230 to 231 above, a further element which could have played a part in increasing the draught of the vessel to more than the 5.89 metres (salt water), calculated by Captain Traktatov, is the fact that the grounding occurred an hour before high tide and the plaintiff has not provided any evidence on which to conclude that the density of water at the bar was likely to be fully consistent with seawater at that time.

246. I am of the view that, in combination, the factors discussed in paras. 243 to 244 are well capable of causing the grounding even if no account is taken of the additional consideration identified in para. 245. There is no basis, therefore, to infer from the fact of the grounding, that the estimate of the 0.20 metre loss of depth made by the harbour master was necessarily wrong. Having regard to these factors, the grounding could have occurred even if the loss of depth at the bar (over and above that measured on 10th December) was no more than 0.20 metres as estimated by Captain Donnelly. In circumstances where (a) there is no basis to infer that his estimate must have been wrong and (b) where the plaintiffs have adduced no reliable evidence to establish that, at the time of the grounding, the loss of depth in the southern section of the channel at the bar was greater than 0.20 metres, it follows that the plaintiffs have failed to establish that the grounding was caused by an incorrect estimation made by the port company of the loss of depth at the bar.

Conclusion

247. In light of my conclusion that the plaintiffs have failed to establish their case on causation, it is unnecessary to go further. The principal plank of the plaintiffs' case

is that the vessel was exposed to danger because the advice given by the harbour master was wrong. That has not been established. For the reasons explained in para. 184 above, I have already held that that the plaintiffs have failed to establish that there was a failure by the port company to take account of the five tidal readings taken in the period prior to the grounding. In para. 186, I have held that the plaintiffs have failed to establish that there was a failure by the port company to have regard to the weather. Furthermore, I have held that there was no actionable failure to take soundings in the period between 10th and 13th December, 2018. While I held in para. 176 that soundings could have been taken in the course of the morning of 12th December, I have explained in para. 242 that this is unlikely to have made any appreciable difference. It is the period thereafter which is critical in terms of the accretion of silt and I have held in para. 174 that it was not feasible to take soundings in that period. Furthermore, for the reasons explained in para. 242 above, there is no sufficient basis to conclude that the port company should have prevented the vessel from sailing until there was an opportunity to carry out a further survey after the weather events on the evening of 12th December and the first part of the day on 13th December, 2018.

248. Accordingly, I must dismiss the plaintiffs' claim. I will list the matter remotely at 11:00 a.m. on Friday 8th October, 2021 for submissions in relation to the orders to be made and any other issues (including costs) that may arise. In advance of that hearing, the parties should seek to agree the terms of the orders to be made and, in the event that they are unable to agree, the parties should, not later than 5:00 p.m. on 5th October, 2021, exchange (and copy to the court registrar) a short outline of the orders that they respectively believe should be made on foot of this judgment together with a summary of the arguments they propose to make to the court.

High Court practice direction HC 101

249. Finally, in accordance with the above practice direction, I direct the parties to file their written submissions (subject to any redactions that may be permitted or required under the practice direction) in the Central Office within 28 days from the date of electronic delivery of this judgment.