



IMMINGHAM EASTERN RO-RO TERMINAL



Applicant's Response to DFDS's Deadline 5 Submissions
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1 **Executive Summary**

1.1 This document provides the Applicant's response to the information submitted by DFDS at Deadline 5, as well as DFDS's navigational safety submissions from Deadline 4. These submissions in turn draw upon information submitted by DFDS prior to that deadline. The DFDS submissions to which responses are now being provided are:–

- Comments on Deadline 4 Submissions **[REP5-042]**;
- Deadline 4 Submission – Cover Letter **[REP4-022]**;
- Response to ExQ2 **[REP4-023]**;
- Comments on Deadline 3 Submissions **[REP4-024]**;
- IOH Manoeuvring Explanatory Note **[REP5-043]**;
- Summary of Case made as ISH3 **[REP4-025]**; and
- DFDS submissions for Deadline 5 – Immingham Eastern Ro-Ro Terminal DCO **[REP5-042]**.

2 Introduction

2.1 This document provides the Applicant's response to the information submitted by DFDS at Deadline 5, as well as DFDS's navigational safety submissions from Deadline 4. All of these submissions in turn draw upon information submitted by DFDS prior to that deadline. The DFDS submissions to which responses are being provided in this document are:–

- Comments on Deadline 4 Submissions **[REP5-042]**;
- Deadline 4 Submission – Cover Letter **[REP4-022]**;
- Response to ExQ2 **[REP4-023]**;
- Comments on Deadline 3 Submissions **[REP4-024]**;
- IOH Manoeuvring Explanatory Note **[REP5-043]**;
- Summary of Case made as ISH3 **[REP4-025]**; and
- DFDS submissions for Deadline 5 – Immingham Eastern Ro-Ro Terminal DCO **[REP5-042]**.

3 Comments made in DFDS D5 Cover Letter

3.1 DFDS submitted a covering letter which explained the general context of their submission at Deadline 5. The Applicant wishes to comment on a number of the points raised in that letter.

3.2 DFDS confirmed that the Applicant contacted DFDS on the afternoon of Friday 20 October 2023 in relation to ISH3 Action Point 17 (agreeing scope of further simulation studies). They alleged that *'this has not provided DFDS with sufficient time to fully consider and respond to the Applicant's proposal by Deadline 5'*. The Applicant would point out that DFDS representatives did attend the simulations held at HR Wallingford and participated fully in the process. A separate summary report of those proceedings is submitted with the Applicant's Deadline 6 submissions – see **Document Reference 10.2.58**.

3.3 DFDS has requested further explanation as to the nature of the changes made in the revised navigational simulation documents (**[AS-021]** to **[AS-024]**), and the Applicant confirms that they were submitted to correct a pictographic error, resulting from an issue with the relevant software which encountered an error and showed a different tidal direction to the one actually simulated. The overall substance and validity of the simulations themselves is still assured.

3.4 Lastly, as part of their introductory comments, DFDS reiterate the Applicant's comment that *"the Duty Holder has neither seen nor has it been presented with any information or evidence that would suggest it should alter its original position"*. They highlight that this *'seems an extraordinary statement given what has happened during the examination so far'*. The Applicant has maintained throughout the examination process that its assessment work remains true and valid.

Summary of position

- 3.5 DFDS summarise their ongoing position and their outstanding concerns, with regard to the Proposed Development, the highway impact of the project, the navigation impact of the project and the governance around navigational safety. The Applicant would comment as follows in response.
- 3.6 In respect of the nature of the project, the Applicant confirms that its proposed changes to the Project are, at present, subject to consultation, the details of which are available for DFDS's consideration. The consultation remains open until Sunday 19 November 2023 at 23:59 pm.
- 3.7 DFDS comment upon the recent positive meetings between the respective traffic consultants, and the Applicant wishes to echo this positivity.
- 3.8 Regarding highway impact of the project, the Application would highlight that the assertion made by DFDS in **[REP5-042]** that improvements will need to be made to at least two junctions is refuted by the Applicant. DTA document 23325-36 submitted at Deadline 6 [Application Document 10.2.60] presents the policy position in regard to required mitigation which further refutes the assertion made here by DFDS.
- 3.9 The PCU conversion factor error identified by DFDS has been corrected in **[REP5-028]** and the updated assessment does not alter the conclusions of the TA **[AS-008]**.
- 3.10 DFDS raise concerns regarding navigational safety which the Applicant does not accept.
- 3.11 The Applicant refutes DFDS's final section which states that '*the Applicant has a long way to go to propose an acceptable project that has been properly assessed*' – a statement that, based on the evidence provided by the Applicant, clearly has no substance.

4 Comments on Applicant's ISH3 Case Summary

- 4.1 DFDS responded to the Applicant's summary of case for ISH3 **[REP4-009]** in their Comments on Deadline 4 submissions **[REP5-042]**, specifically at paragraphs 2 to 29 (pages 2 to 6).
- 4.2 In paragraph 2, DFDS claim that there is a lack of separation between the Applicant and the Harbour and Port Authority. The Applicant disputes this position and would refer to the evidence submitted by the Humber Harbour Master at Deadline 5 **[REP5-040]** and **[REP5-038]** which very clearly evidences the independence of the SHA.
- 4.3 It is not unusual in the UK for the Statutory Harbour Authority (SHA) to be the applicant for developments within a given port/harbour for which it is also the statutory authority. Although this may not have been in the context of a DCO application, there are many examples of port/harbour marine developments where the SHA is the applicant under Harbour Works Orders. Examples of

- this type of application include MMO Reference: DC10168 (Title: Fishguard Linkspan Replacement - Applicant: Stena Line Ports Limited (also the SHA for Fishguard Port)) and MMO Reference: DC9847 (Title: Poole Harbour Board works harbour revision order – Applicant: Poole Harbour Commissioners (the SHA for Poole Harbour)).
- 4.4 Paragraphs 3 to 7 deal with navigational risk – to which a formal response has been provided in **Document Reference 10.2.55**, submitted at Deadline 6.
- 4.5 In response to Paragraph 4, the Applicant would reiterate that it is not for stakeholders to define the tolerability thresholds, as this is a matter of the Duty Holder. The Applicant repeatedly engaged stakeholders throughout the HAZID and NRA process and has submitted all available pre-read material and minutes for the HASB meeting into the examination which set out the position reached on tolerability **[REP4-009]**.
- 4.6 Paragraphs 8 and 9 criticise the navigation simulations undertaken and the Applicant disagrees with the statements made by DFDS for the reasons explained in ISH3 **[REP4-009]**. Nevertheless, in response to ISH3 Action Point 17, the Applicant has proceeded to undertake additional simulations which was specifically in response to the requests by stakeholders raised at ISH3 and this included a robust approach to simulating manoeuvres to and from Berth 3. DFDS were in attendance at these latest simulations held on 7 and 8 November 2023 and the Applicant has submitted a report produced by HR Wallingford at Deadline 6.
- 4.7 In paragraph 10, DFDS state that they wish to know what data was gathered north of IOT as it is the location of the tidal diamond to which DFDS referred in their written submissions and highlighted in answer to ExA questions. The Applicant confirms that its independent consultants compared the flow data in their model with the tidal diamond on BA Chart 3497 and in the Pilot handbook on page 118. This comparison is shown in the table below. For transparency, they have provided 2-speed columns for each model, noting that they scale the modelled ebb flows by a factor of 1.2 to account for the peak ebb flows observed using current sensing equipment. They do not normally adjust the direction of flows. Given the variability in the flows close to Immingham they consider that their model captures the nature of the flows appropriately.
- 4.8 DFDS further ask whether the Applicant is suggesting that, without data north of IOT, it intends to advise the Admiralty to change the published data for such. The Applicant confirms that it does not consider that it would be appropriate to update the information on the flows at Immingham in other publications, as the published data is already appropriately precise given the variability that is likely to be expected in a river such as the Humber at Immingham.
- 4.9 The Applicant's independent consultants consider that the general correlation shown both in terms of speed and direction when comparing their mean spring model with the mean spring tides from the tidal diamonds further supports their contention that the flow models used in this study are

appropriate, particularly when considering the general complexity in the flows at Immingham. Furthermore, the period in the flows where the peak rates occur, which were mainly used and is the period in the cycle which is normally cited as of concern then the comparison is very good.

- 4.10 Further, The Applicant's independent consultants note that the apparent large variance in flow direction around slack water is to be expected and their models show a large variation in direction over the 30 minutes either side.

Time (hours)	Model Peak Spring			Model mean spring			Tidal Diamond B and D			
	Current Direction (degN)	Current Velocity (kts)	Current Velocity (kts) x1.2	Current Direction (degN)	Current Velocity (kts)	Current Velocity (kts) x1.2	Directions of Spring Streams (Deg) (From Tidal Stream Table)	Rates at Spring Tides (kts)	Directions of Spring Streams (Deg) (From Tidal Stream Table)	Rates at Neap Tides (kts)
HW-6	129	2.9	3.5	132	2.7	3.3	132	2.6	106	0.8
HW-5	135	0.6	0.7	148	0.2	0.3	239	0.2	004	0.2
HW-4	305	2.5	3	308	2.5	2.9	303	2.2	310	1.1
HW-3	304	3.7	4.4	307	3.5	4.1	305	3.3	313	1.7
HW-2	305	3.9	4.7	308	3.7	4.5	314	3.2	308	1.7
HW-1	305	2.9	3.4	308	2.9	3.5	315	3	319	1.1
HW	302	1.7	2	306	1.6	1.9	319	1.3	341	0.3
HW+1	265	0.2	0.2	210	0.1	0.1	122	1.3	135	0.7
HW+2	134	2	2.4	137	1.9	2.2	133	3.3	134	1.4
HW+3	131	3.4	4.1	133	3.1	3.7	129	4	128	2.4
HW+4	129	3.8	4.6	131	3.6	4.3	132	4.4	132	2.8
HW+5	129	3.7	4.4	132	3.5	4.2	126	3.5	135	2.6
HW+6	129	3.4	4	132	3.1	3.7	132	2.9	136	1.6

- 4.11 It would not be normal to try and verify a flow model in an area as complex as the Humber against a tidal diamond. This is because the tidal diamond is an artefact of data combined with cartography and is intended to indicate a general pattern, whereas a flow model is more precise.

- 4.12 The Applicant would, in addition, refer DFDS to the HR Wallingford report RT008 produced in August 2023 – see **Document Reference 10.2.59** submitted by the Applicant at Deadline 6 – which outlined the work undertaken to verify the flow models in the vicinity of the Project and the confidence in the correlation.
- 4.13 In paragraph 12, DFDS contend that, in respect of the manoeuvres for both IOH and the proposed terminal, to suggest the manoeuvres for both IOH and IERRT terminals is comparable underlines the Applicant’s lack of understanding of the risks inherent to the Proposed Development and is the reason why the Applicant is now being forced to make changes to its proposal to mitigate these risks. This is clearly incorrect and misleading and is not accepted. The similarities are manifestly apparent.
- 4.14 In paragraph 13, DFDS question “what limits” the relevant parties are proposing given that the simulations were designed to ‘establish the limits’. The Applicant would simply point out that the fundamental objective of navigational simulations is to consider the “limits” of a given design. These “limits” as DFDS are fully aware, are not prescribed limits but the exercise of testing that is part of the simulation exercise.
- 4.15 In paragraph 17, DFDS request clarity as to whether the simulations inform the limits of the Proposed Development and request the detail on what indicative limits are, in light of the comments made by the Applicant’s expert on the matter. The Applicant confirms that its expert was seeking to make the point that the limits deduced from simulation should not be taken directly as an absolute limit for operations but are entirely appropriate to be used as indicative limits for planning and analysis.
- 4.16 In paragraph 18, DFDS state that Mr McCartain, ABP Board Director, is currently acting as the Designated Person which undermines his answer regarding the independence of this role. The Applicant disagrees with this assertion and reiterates that the Designated Person has an entirely independent role – as explained in the Applicant’s note ‘The Port of Immingham and River Humber – Management, Control and Regulation’ at paragraph 10.30 **[REP1-014]** and as explained by the Designated Person at ISH3 **[REP4-009]**.
- 4.17 In paragraph 19, DFDS assert that they struggle to see how the Applicant’s commercial interests can be kept separate from decisions by the statutory duty holders in light of this governance structure. The Applicant again refers DFDS to the explanation provided in its note ‘The Port of Immingham and River Humber – Management, Control and Regulation’ at paragraphs 10.18 to 10.30 **[REP1-014]** and the oral evidence provided by the Designated Person at ISH3 **[REP4-009]**. The Applicant would also direct DFDS to the submissions made by the Humber Harbour Master at Deadline 5 **[REP5-040]** and **[REP5-038]** which very clearly evidence the independence of the SHA.
- 4.18 In paragraph 20, it is suggested that if the Applicant’s governance structure was genuinely independent and robust, the Designated Person should have been invited to the HAZID meetings to allow him, in his independent role, to decide whether or not to attend, and it is only by attending such meetings that

- the Designated Person could fully appreciate the issues and concerns of the Interest Parties with the Proposed Development so as to make an informed decision. The Applicant does not accept this and it is pointed out that attendance by the Designated Person at a HAZID Workshop would defeat the Designated Person's role of impartiality as an advisor to the HASB.
- 4.19 In paragraph 21, DFDS state – correctly – that the HASB and Harbour Master are content that no impact protection measures are required, and query why impact protection measures are only being considered by the Applicant at this point in the process. DFDS do not seem to understand the process. Neither the HASB nor the Harbour Master Humber have changed their views and the Applicant is bound to query whether DFDS is being deliberately obtuse.
- 4.20 In paragraph 22, DFDS explain that they noted errors in the calculations within the technical note provided by the Applicant's transport consultant. The Applicant confirms that an update to the technical note was submitted for Deadline 5 provided at **[REP5-028]**.
- 4.21 In paragraph 23, DFDS draw attention to the fact that the average volume would be 25% lower than the peak volume, which they expect was in error and meant to state 20%. The Applicant confirms that this is correct. It has also been brought to the Applicant's attention that the 25% lower figure has been carried through in some of the D5 submission documents. In all cases, it is meant to have been stated that the peak volume is 25% higher than the average, and the average volume is 20% lower than the peak.
- 4.22 In paragraph 25, DFDS address that way finding (apart from the sign at the exit of the terminal) should not be considered in respect of the assessment of the East versus West Gate assignment. DFDS appear to have confused wayfinding with a signage strategy. The Applicant confirms that whilst signage may be a part of wayfinding, there are other methods such as satnav and instruction to access the port via East Gate at the time of booking.
- 4.23 In paragraph 26, DFDS comment on distances of Ro-Ro infrastructure to petrochemical jetties and states that 'These operations are located at least 1000 metres from the closest Ro-Ro terminals'. The Applicant believes this not to be correct. As evidenced in both **[REP4-008]** and **[REP4-009]**, the Purfleet (CLdN) Ro-Ro Berths are located between Purfleet Oil Storage (COMAH) to the West and another smaller Oil Storage facility to the East, and both oil facilities have associated marine assets in the form of jetties and pipe discharge/delivery trunkways. The bow of a Ro-Ro vessel using the Western linkspan of the Purfleet Ro-Ro berth is approximately 100m from the Eastern end of the Purfleet Oil Terminal jetty without a ship on the jetty. The distance would be less if a tanker is berthed on the jetty.
- 4.24 Further, the Purfleet Eastern Ro-Ro linkspan positions the bow of the berthed Ro-Ro vessel at a distance of 70 metres to the jetty of the Oil Storage Site Jetty located to the East of Purfleet Ro-Ro Terminal.
- 5 Comments on Applicant's ISH4 Case Summary**
- 5.1 In paragraph 32, DFDS reiterate their view that there should be a daily limit or modifications required to the annual throughput in the DCO, or the daily

peak flow stated within the Transport Assessment. The Applicant notes this comment but does not believe it to be necessary as it is possible for there to be daily fluctuations without material adverse consequences, as explained at paragraph 13 of the Written Summary of the Applicant's Oral Submissions at Issue Specific Hearing 4 **[REP4-010]**.

6 **Comments on Applicant's Response to ExQ2**

- 6.1 As explained within its various submissions and evidence, the Applicant does not agree – as is being claimed by DFDS in paragraph 36 – that the IERRT poses safety risks or adverse implications for other commercial operations at the Port of Immingham. The Applicant's position on NPSfP paragraph 3.3.3 is summarised in its Deadline 5 submission **[REP5-032]**.
- 6.1 In paragraph 37, DFDS note that the position on accompanied versus unaccompanied freight was subject to agreement with the Applicant – to be recorded within the Transport Statement of Common Ground (SoCG). The Applicant confirms that the matter of the unaccompanied / accompanied ratio has been agreed with DFDS and is reported in the Transport SoCG, provided at Application Document reference 7.10.
- 6.2 In paragraph 38, DFDS refutes the Applicant's assertions regarding their NRAs. The Applicant refers the Examining Authority to the review of DFDS's NRA **[REP2-043]** submitted at Deadline 6.
- 6.3 In paragraph 41, DFDS imply that a vessel bound for the Proposed Development – if waiting for a tug – will have to wait in a more vulnerable position than would be the case for a vessel due to berth at IOH or CLdN. This argument is without merit. The SHA would not permit any waiting for a tug to occur in an unsafe manner.
- 6.4 In paragraph 42, DFDS address the representation by Mr Parr, and the Applicant confirms that Mr Parr when referring to 'pilots' in evidence **[EV3-008]**, intended to make a general reference to avoid overly criticising a single party. However, he was specifically thinking of consistent references to an anecdotal flow pattern supported principally by DFDS and occasionally as a general perception from pilots based on general guidance. The specific observation is that the flows north of the IOT consistently set 315 or 135 degrees true.
- 6.5 The Applicant does not consider that additional data collection is required to verify the model north of the IOT because the ability of the vessel to navigate safely in this part of the river and manoeuvre across the tide towards Immingham is well understood by the harbour authority and river users, and the precise nature of the flows here are not directly consequential to operations at the Proposed Development.
- 6.6 In paragraph 43, DFDS raise safety concerns, and the Applicant refers to its response in respect of paragraph 8 above.
- 6.7 With respect to paragraph 44 to 47, please refer to the Applicant's review of DFDS's NRA **[REP2-043]** submitted at Deadline 6.

- 6.8 In paragraphs 48 and 49, DFDS raise the issue of marine congestion in and around the SHA area of the Port of Immingham. The Applicant believes this point has been dealt with by the Harbour Master Humber **[REP5-037]**.
- 6.9 In paragraph 50, it is stated in the text response to TT2.01 **[REP4-008]** that HGVs per hour have been considered in the unaccompanied/ accompanied corrected table. All other data provided by the applicant has been labelled as total vehicles/ HGVs/ PCUs in the relevant table caption.
- 6.10 In paragraph 51, DFDS refers to the review of the committed development adopted in the Transport Assessment **[AS-008]** undertaken between the Applicant and Interested Parties. The Applicant confirms that committed development flows by junction were provided within **[REP5-028]**. The committed development flows by site have been sent to GHD via email (07/11/2023) following a request for a further breakdown.
- 6.11 In paragraph 52, DFDS address strategic road network signage. The Applicant confirms that discussions are ongoing with transport consultants for CLdN and DFDS and are reflected in the Transport SoCG.
- 6.12 In paragraph 53, DFDS notes that CLdN has advised that they are able to provide an assessment of Stena's current tractor only ratio at Killingholme which indicates a value of nearing 40%. The Applicant confirms that 36% solo tractor proportion provided by CLdN has been discussed within **[REP5-027]** and will be considered within further sensitivity analysis.
- 6.13 In paragraph 54, DFDS assert that the benefits of Automatic Numberplate Recognition (ANPR) should not be considered within the gatehouse capacity assessment as ANPR is not secured as part of the DCO. The Applicant confirms that the gatehouse capacity assessment provided in Annex A of **[REP5-027]** is not reliant on the provision of ANPR.
- 6.14 In paragraph 55, DFDS ask the Applicant to explain how SMS Towage intend to berth 4 tugs on the east jetty tug barge. The Applicant would refer DFDS to the very clear statement provided by SMS Towage. DFDS also query whether the Applicant intends to extend the Eastern tug barge jetty as part of this application, this is clearly not the case.

7 **Comments on Applicant's Response to DFDS's D3 Submissions**

- 7.1 In paragraph 57, DFDS state that the unaccompanied / accompanied freight unit split variations have limited, rather than no, material impact. The Applicant notes this is a change from the submission provided at **[REP3-022]** where DFDS state that "*... in isolation, the accompanied/ unaccompanied split has a non-material impact on the Transport Assessment ...*". This statement has not been misconstrued in the Applicant's **[REP4-012]** submission and it would appear that DFDS have changed their position on the matter. The Applicant still considers that the accompanied/ unaccompanied split does not require any further assessment in the context of sensitivity tests.

8 **Comments on DFDS's IOH Manoeuvring Note [REP5-043]**

- 8.1 The Applicant note the DFDS submissions regarding how DFDS's vessels undergo manoeuvres within the Humber Estuary, and within the Immingham Outer Harbour ("IOH"), in order to berth on the finger pier or offside of the vessel on berth 2 within the tidal basin.
- 8.2 The Applicant, however, maintains its position that manoeuvring for IERRT is similar in nature to that of the IOH. For example, both facilities involve:
- (a) the use of river frontage berthing facilities at the Port of Immingham;
 - (b) manoeuvres in strong tidal conditions; and
 - (c) manoeuvres in close proximity to other marine infrastructure and vessels, whether moored or underway.
- 8.3 The Applicant notes that DFDS only identify three key differences between the IOH and the IERRT, namely:
- "2.1 The fact that DFDS are able to produce specific manoeuvres for ebb and flood tides allows better control of risk;*
- 2.2 The space available to the north of the IOH makes aborts much safer and easier to execute; and*
- 2.3 There is no tide within the IOH so the manoeuvres onto the berths are always in slack water."*
- 8.4 The Applicant disagrees that the first key difference is a key difference and considers that the same process will be adopted for IERRT. For example, the Applicant has already indicated that a 'soft-start' to operational marine activity will be adopted so mariners can acclimatise to the local conditions experienced in and around the new facility.
- 8.5 The second key difference highlighted by DFDS is that open estuary space available north of the IOH makes aborts much safer and easier to execute. The Applicant does not agree that the IOT benefits from open estuary north of the IOH. On the contrary, the Applicant considers the IOH is actually navigationally constrained. The entrance to the IOH is constrained by the Immingham Bulk Terminal to the west and the Western Jetty to the east.
- 8.6 The third main difference, again highlighted by DFDS, is that the IOH does not experience any tidal motion so manoeuvres on to the berth are always in slack water. The Applicant does not disagree that the IOH is in effect a stilling basin in hydrodynamic terms. However, the manoeuvres in to the IOH, and on departure from the IOH take place partly within the main channel which experiences considerable tidal flow. Plainly the manoeuvre in its totality represents far more than simply approaching and departing a berth, and indeed involves a complex turning motion in heavily tidally influenced waters for the vessel stern to enter a narrow passage before a further turn – in still waters but in a much more constrained space – can take place.
- 8.7 The Applicant notes the descriptions and plans produced by DFDS to indicate the approach and departure scenarios adopted by their vessels in different tidal and wind conditions.

- 8.8 The Applicant makes the following observations in respect of paragraphs 16-22 of the note:

Approach options

- 8.9 DFDS state at paragraphs 16 and 17: *'The IOH has four different approaches and three different departure manoeuvres designed for the common environmental conditions experienced in the Immingham area. Each approach or departure is designed to ensure the greatest level of control and escape options should something unexpected occur.'* They add that the IERRT *'in contrast requires a similar approach each time regardless of tide and wind making this more complex'*.
- 8.10 The Applicant disagrees with this statement, as it represents a gross oversimplification. The approach to the IERRT berths may involve a similar route when coming much closer to the berths but the manoeuvre to position the vessel ahead of its move astern could have multiple permutations, just like DFDS have devised the 'IBT J turn' and 'Clay Huts loop' options for the IOH (explained in paragraphs 5-7 of the note). In respect of DFDS's comment that the IERRT involves a 'similar approach each time', the Applicant would simply note that the IOH entrance has only one approach option – moving astern through a narrow gap between the IBT jetty and Western Jetty.

Tidal influence

- 8.11 At paragraphs 18 and 19 of the note, DFDS state that *'there is no noticeable tidal flow within the IOH. These slack water conditions mean that the final stages of the manoeuvring when close to port infrastructure is only influenced by the wind'*. They add: *'the IERRT in contrast has the tide running through the structure which requires the master to balance both tide and wind when manoeuvring for the berth'*.
- 8.12 As indicated above, crucial elements of the manoeuvre on the approaches to the IOH take place under the full influence of the prevailing tidal and wind conditions.

Proximity to adjacent berths and vessels

- 8.13 DFDS state at paragraphs 20 – 22 of the note that *'whilst IOH vessels are close to the IBT vessels when conducting the 'J-turn' the tide runs parallel to the IBT berth and vessels only complete this manoeuvre when the wind is such that it would carry them away from the IBT berth. IOH vessels do not come close to the chemical tankers berthed on Western Jetty as part of either arrival or departure manoeuvres.'* They then state that *'the IERRT in contrast requires vessels to pass close to the chemical tankers on the Eastern Jetty as part of every manoeuvre on or off berths 2 and 3 and close to the fuel carrying tankers of IOT finger pier when manoeuvring on/off berth 1.'*
- 8.14 Every IOH manoeuvre shown in the note brings the bow of the vessel close to the westernmost point of the Western Jetty, a berth which accommodates chemical and petrochemical tankers. The Applicant notes that DFDS's plots do not show just how close the bow of the vessel is to the termination of the Western Jetty at its closest point for each manoeuvre and considers this can

be inferred by tracing the swept path of the vessel from shown position to shown position.

Emergency abort space

8.15 At paragraph 22, DFDS assert that '*IOH vessels always have space to the north in case of an emergency whereas IERRT vessels are constrained on all sides by critical infrastructure and hazardous cargoes.*'

8.16 This is factually incorrect. IERRT vessels will have plenty of sea room for manoeuvre up to the point where they are much closer to the berths themselves. Even when close to the berths, the abort space that can be taken is obviously to the west – in other words the area within which the vessel made its approach. Further, a DFDS vessel is also constrained to the east, west and south when manoeuvring through the narrow IOH entrance, with only the access point from the north being the area within which an abort could take place.

9 Written submissions of oral case presented at ISH3 by DFDS [REP4-025]

9.1 In response to representations under 3a – it is noted that DFDS have supplied drawings and a narrative around their preferred manoeuvring strategies for the IOH, and the Applicant has commented separately on this matter. As noted above, the applicant disagrees with DFDS in its categorisation of the IOH as being incomparable to IERRT which is patently not true.

9.2 In response to representations under 3b – The Applicant notes that within its written summary of case made at ISH3 [REP4-025] DFDS notes, under heading 3b, that it does not consider that there is an example at another UK port where Ro-Ro berths are in such close proximity to fuel berths, as that in the Proposed Development. The Applicant's view on this is provided in its response to ExQ2 (NS.2.07) [REP4-008] as well as in the Applicant's Written Summary of Oral Submissions at ISH3 [REP4-009].

9.3 The Purfleet Eastern Ro-Ro linkspan with berth Ro-Ro vessel positions the bow of the berthed ship at a proximity of 70 metres to the jetty of the Oil Storage facility jetty located to the East of Purfleet Ro-Ro Terminal. Both of these facilities have vessels berthing, transiting and manoeuvring in close proximity in all tidal states, none of these jetties or associated trunkways have impact protection.

9.4 In response to representations under 3c – The Applicant would comment that DFDS make several points relating to Navigational Risk Assessments (NRAs), risk controls and acceptability. DFDS assert that tolerability and ALARP are inseparable concepts which is not correct, specifically DFDS state '*Risks that are intolerable must be eliminated or reduced. If reduced, these risks must be reduced to ALARP in order to be considered acceptable*'. In this very example DFDS are demonstrating the difference between the two concepts; tolerance is a threshold of risk, and if exceeded, DFDS then state that risks (when controlled/mitigated) should be reduced to an ALARP state.

9.5 Further, DFDS assert correctly that the determination of ALARP is the responsibility of the Duty Holder. This is caveated by DFDS identifying that

- the Applicant is also in another capacity the Duty Holder. However, this is very common within ports and is in no way prohibited or discouraged in any relevant policy for port development, especially in the context of navigational safety within an SHA.
- 9.6 DFDS then go on to comment on citing a methodology for determining tolerability/acceptability, specifically MGN 654, which they previously tried to state was not appropriate for the NRA to take into consideration. DfT through the PMSC, the GtGP and various MGNs do not prescribe a method for determination of tolerance/acceptability, nor does it define a limit for these concepts in the context of an NRA as this would usurp the SHA's role as the statutory authority responsible for managing the risk.
- 9.7 DFDS's consideration that a probabilistic approach is more appropriate is noted both by the Applicant and the SHA who have the opportunity to review the three NRAs now produced in order to determine which NRA (in combination or individually) best represents the risks associated. The SHA can then take the findings and implement controls as part of their Marine Safety Management System ahead of the construction/operation of the facility. Again there is no DfT policy through the PMSC, the GtGP or various MGNs that prescribe a method for determining how to assess likelihood in an NRA within an SHA's area absolutely. In fact, the GtGP is very careful to leave this as open as possible so that ports of varying compositions can utilise an approach that works with their setup.
- 9.8 In response to representations under 3d - DFDS note that it is considered unclear to stakeholders what the operating limits and harbour directions are in relation to IERRT and question the transparency of the process. The Applicant is surprised at this apparent lack of understanding expressed by DFDS in that it is fully aware that relevant directions will be issued at the appropriate time.
- 9.9 In response to representations under 3e - DFDS discuss the differences between DFDS's and the Applicant's NRA methodologies which is provided at Appendix 1 to **[REP4-025]**. The Applicant has provided a review of the NRA produced by DFDS submitted at Deadline 6 (Application Document 10.2.55).
- 9.10 In response to representations under 3f – regarding the HASB consideration of the Proposed Development risk acceptability (tolerability) and the cost effectiveness analysis of controls, the Applicant would comment that the operation and roles of the HASB in its note - 'The Port of Immingham and River Humber – Management, Control and Regulation' - **[REP1-014]** and as explained by the Designated Person at ISH3.
- 10 **Comments on Deadline 3 submissions by DFDS [REP4-024]**
- The Applicant's Response to DFDS's Written Representation [REP3-008]**
- 10.1 DFDS responded to the Applicant's response to DFDS's Written Representation **[REP 3-008]** in their Comments on Deadline 3 Submissions document **[REP4-024]**; specifically paragraphs 3 to 17.

- 10.2 Paragraph 3 provide a commentary in respect of manoeuvring at the Immingham Outer Harbour (IOH). Since these submissions, DFDS have subsequently submitted an IOH Manoeuvring Explanatory Note **[REP5-043]**, which the Applicant has responded in Section 3 above.
- 10.3 In paragraph 4, DFDS state that the Eastern Jetty stemming area could not be used whilst a vessel is arriving at, or sailing from, the IERRT berths. DFDS have superimposed vessel manoeuvres to back up this assertion. This point has been dealt with by the Harbour Master Humber.
- 10.4 In paragraph 5, DFDS suggest that the Applicant does not understand the concept of a liner service. Clearly the Applicant does understand this, having worked with Ro-Ro operators like DFDS for a number of years. DFDS appear to infer that the vessels arrive and depart exactly as per their advertised schedule. The Applicant can confirm that this is in fact rarely the case – often vessels will arrive close to the time of their advertised schedule but not necessarily exactly at that time. DFDS in fact corroborate this by referring to the ‘window’ for those vessels to arrive and depart, thus undermining their assertion that a liner service has to rigidly comply with it advertised times. The Applicant is unsure how a time separation of a few minutes would affect vessel arrival or departure times when a two hour window has been specified. In the Applicant’s experience, vessels very rarely adhere to a rigid schedule simply because of many uncontrolled variables, such as weather conditions.
- 10.5 Paragraph 6 details DFDS’s view that the Applicant’s staff are aware of the presence of the tug barge when conducting simulations as ‘fanciful.’ This piece of infrastructure is known and understood and parties at the simulations – who are very familiar with the port – will be aware that it is there.
- 10.6 In paragraph 7, DFDS suggest siltation caused by the capital dredge deposits will increase in areas such as the IOH and that by using the deposit grounds indicated by the Applicant that levels of siltation will be beyond the capability of the current dredging fleet. This issue has been assessed in detail using hydrodynamic modelling within Chapter 7 of the ES **[APP-043]** and the Applicant has responded to DFDS’s concerns in Examination documents (e.g., see Table 7.19 of **[REP1-013]**). In summary, the capacity of the proposed disposal sites (HU060 and HU056), the maintenance dredge requirements at existing berths at the Port of Immingham, and the bathymetry of the wider Humber Estuary will not be adversely affected by the Proposed Development. It is not clear why DFDS continue to raise this point and ignore the conclusions of the robust and evidence-based assessment that is provided in the ES.
- 10.7 In respect of paragraphs 9 and 10, matters of relevance to the level of activity possible at the IERRT facility are explained further in section 6 of the Applicant’s Deadline 5 submissions **[REP5-032]**.
- 10.8 The Applicant has already responded to paragraphs 13 – 17 in its Deadline 5 submissions **[REP5-034]**.
- 11 **The Applicant’s Response to DFDS’s Additional Navigation Risk Assessment [REP3-009]**

- 11.1 DFDS responded to the Applicant's Interim Response to DFDS's Additional Navigational Risk Assessment [REP3-009] in their Comments on Deadline 3 Submissions document [REP4-024]; specifically paragraphs 18 to 26.
- 11.2 These comments are addressed, as necessary in the **Response to DFDS's NRA – Application Document Reference – 10.2.55** as submitted by the Applicant at Deadline 6.
- 11.3 In response, the Applicant would point out that determining risk tolerance is a process where the owner of the risks/responsible body considers what the threshold is as a function of likelihood and consequence. That is, in this instance the HASB was presented with the same risk matrices and associated descriptors of consequence and likelihood that were used in HAZID workshop 3. They were then asked to determine what outcomes were acceptable to them in managing the risk– this was then modelled onto the risk matrices the HASB then being able to review and confirm the placement of the threshold of tolerance.
- 11.4 It should also be noted that it is best practice not to allow risk tolerance to influence the stance on risk outcomes when considering them in workshops. For example, when discussing in a workshop if one thinks a risk is 'possible' or 'unlikely' it is better for attendees not to be biased or influenced in seeking particular outcomes, this is because you would then have a situation where an objector would overplay the perceived risk and a supporter would underplay the perceived risk – this is colloquially known as 'gaming the risk assessment'.
- 11.5 Paragraphs 20 and 22 present a mischaracterisation of the point made about how the DFDS NRA's risk scoring was arbitrary and simplistic. DFDS have again cited two other NRAs (Solent Gateway and Able Marine Energy Park) which differ in the descriptors utilised. It is apparent that the authors of the DFDS NRA do not understand the error they have made in taking a risk table with scores and outcomes from one of these NRAs and the likelihood descriptors from the other. To cross these two documents over in this way results in significant amplification of risk as per the worked example below:
- 11.6 DFDS has applied the same Hazard Risk Score Classifications as the 'Solent Gateway NRA' and the same frequency descriptors as the 'Able Marine Energy Park NRA' (which are different to the frequency/likelihood descriptors for the 'Solent Gateway NRA'). Figure 1 displays excerpts from the DFDS NRA on the left and excerpts from the 'Solent Gateway NRA' on the right. As can be seen, the scoring classification tables between the Solent Gateway NRA and the DFDS NRA is identical.

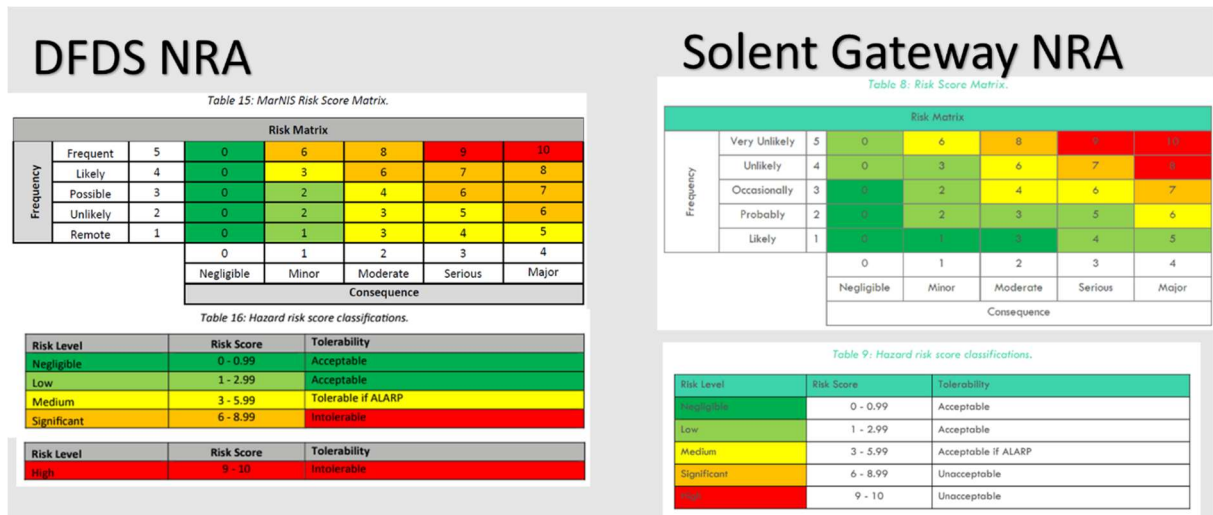


Figure 1. DFDS vs. Solent Gateway - Hazard Risk Score Classification and Risk Matrix comparison

11.7 Figure 2 considers the frequency/likelihood descriptors from each of the 3 NRAs (DFDS, Able Marine Energy Park, and Solent Gateway respectively). This demonstrates that the frequency between the DFDS additional NRA and the Able Marine Energy Park NRA are the same, whilst also being drastically different to the Likelihood descriptors used for the ‘Solent Gateway NRA’.

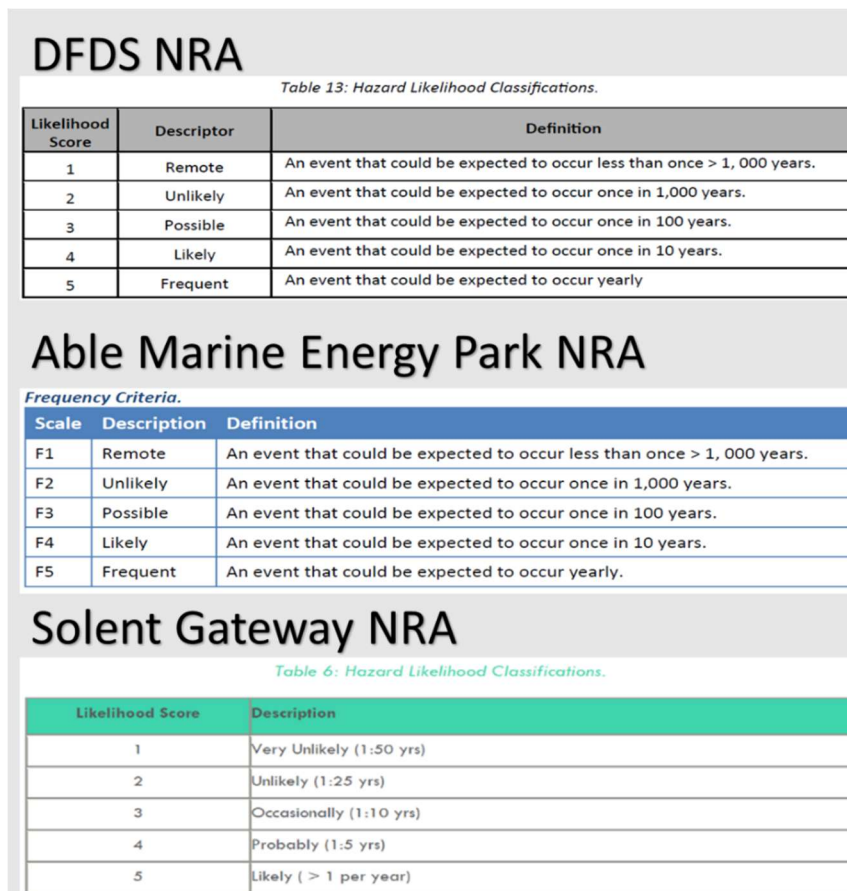


Figure 2. Comparison of Likelihood/Frequency Descriptors between NRAs cited by DFDS

11.8 Table 1 (below) displays the likelihood descriptors for the Solent Gateway NRA, for which DFDS have used the same Hazard Risk Score Classifications, this is shown on the second to bottom row. This is then juxtaposed with the frequency descriptors used within the DFDS additional NRA on the bottom row. Where possible these descriptors have been aligned (column 6, 1 in 10 year, and column 8, yearly/more than yearly). The use of colour in the table seeks to match the distortion of Hazard Risk Scoring which demonstrates the fundamental mistake made.

Solent Gateway/ DFDS NRA	Column 1		Column 2		Column 3		Column 4		Column 5		Column 6		Column 7		Column 8	
	Solent	DFDS	Solent	DFDS	Solent	DFDS	Solent	DFDS	Solent	DFDS	Solent	DFDS	Solent	DFDS	Solent	DFDS
Major	N/A	5	N/A	6	N/A	7	5	N/A	6	N/A	7	8	8	N/A	10	10
Serious	N/A	4	N/A	5	N/A	6	4	N/A	5	N/A	6	7	7	N/A	9	9
Moderate	N/A	3	N/A	3	N/A	4	3	N/A	3	N/A	4	6	6	N/A	8	8
Minor/Minor/ Low	N/A	1	N/A	2	N/A	2	1	N/A	2	N/A	2	3	3	N/A	6	6
Negligible	N/A	0	N/A	0	N/A	0	0	N/A	0	N/A	0	0	0	N/A	0	0
Solent Gateway	N/A		N/A		N/A		Very Unlikely: 1 in 50		Unlikely: 1 in 25		Occasionally: 1 in 10		Probably: 1 in 5		Likely: >1 per year	
DFDS NRA	Remote: > once per 1000 years		Unlikely: once in 1,000 year		Possible: once in 100 years		N/A		N/A		Likely: Once in 10 years		N/A		Frequent: yearly	

Table 1. Demonstration of incongruous Risk Matrices and Frequency Descriptors between ‘Solent Gateway NRA’ and DFDS’ additional NRA

11.9 As can be seen in column 8, there is significant alignment. However, when considering column 2 and column 5 (each highlighted orange, as a matching pair) it can be seen that a Major risk in each column is scored as a ‘6’, which according to the Hazard Risk Score Classifications is ‘Intolerable’. However, to put it most simply, the ‘Solent Gateway NRA’ considers a Major risk occurring every 25 years is intolerable, whilst the DFDS NRA considers that a risk every 1000 years is also a ‘6’ and still considered intolerable. Noting that NASH Maritime completed both of these NRAs, it is not clear how the same degree of risk consequence (Major) hits the intolerable threshold at one occurring every 25 years versus one occurring every 1000 years. Further, the fact that both outcomes score ‘6’, especially when the consequence descriptors are the same, demonstrates that the authors of both NRAs (NASH Maritime) in one instance (Solent Gateway) think that a Major risk every 25 years is intolerable and in the instance of the IERRT development think that a Major risk every 1000 years is intolerable.

11.10 Paragraph 21 attempts to undermine the Applicant’s understanding and stance on the principle of reducing risks to an ALARP state, stating that ‘*The principle of ALARP is applied to high risk hazards that require additional risk controls in order to be considered acceptable or tolerable.*’ The Applicant fully understands this, however, as a safe operator of 21 ports around the UK the Applicant seeks to reduce all risks to ‘*as low as reasonably practicable*’ which provides an additional layer of mitigation to benign risks as well as to ‘high risk hazards’.

11.11 Whilst it may not be necessary under the PMSC to reduce ‘broadly acceptable’ risks to an ALARP state, the Applicant believes that it is appropriate to introduce controls which reduce risk (if they are reasonably practicable) to increase overall safety. It must also be noted that across the three NRAs provided for the SHA to consider for the IERRT development, the only control that the Applicant categorically does not agree with is ‘moving the

- finger pier' in the context of applying the ALARP principle. That is, the Applicant is aware that the SHA is willing to consider every other control suggested by both the IOT Operators NRA and the DFDS NRA.
- 11.12 Paragraph 23 again identifies incorrectly that the NRA produced for DFDS is 'independent', as they commissioned the work that was then produced for themselves along with the IOT Operators commissioning an NRA which was again produced for themselves. Further, there is no suitable justification provided as to why the NRA produced for DFDS had no consultation with the SHA as a key stakeholder. Particularly so as DFDS set their own deadline for submission of this NRA at ISH2 for deadline 3.
- 11.13 The Applicant is uncertain as to why DFDS have included the HSE decision making process titled 'Reducing risk, protecting people' (known as R2P2) at Appendix 4 of their submission regarding Navigational Risk **[REP4-024]**. As DFDS will be aware navigational risk is separate from health and safety considerations, this is why when there is an incident between vessels, the MAIB will investigate as the lead agency. However, for incidents that occur on the shore side of a port, the HSE will investigate as the lead agency.
- 12 **The Applicant's Response to ExQ1 submissions by Interested Parties [REP3-016]**
- 12.1 DFDS responded to the Applicant's response to ExQ1 submissions by Interested Parties **[REP3-016]** in their Comments on Deadline 3 Submissions document **[REP4-024]**, specifically paragraphs 27 to 37 (pages 13 to 15).
- 12.2 In paragraph 27 to 29, DFDS provide commentary on the HAZID process that was undertaken for the IERRT project and formed the basis of the NRA [APP-089]. DFDS comment on the perceived shortfalls of a HAZID workshop held on 22 August. This was the second of three workshops held and was used to get an initial insight into identifying hazards for this project. At this stage of the draft process the final design had not been confirmed nor had the Navigation Risk Assessment been written. The third HAZID workshop considered each of the risks and entered into an extra period of consultation (by email afterwards) to ensure that all view points could be submitted and heard on all risks. The Applicant also took on board the requests of DFDS between HAZID 2 and 3 and ensured that for HAZID 3 attendees were in a large, single group so that everyone could comment on the risks together and that specialists in differing areas were not only commenting on construction or operation in isolation.
- 12.3 DFDS have queried the further applicable controls, specifically citing berthing criteria. As DFDS will know, the HAZID workshop is not the place to prescribe these controls. The prescription of these controls is done by the SHA when they implement the findings of the NRA into their MSMS.
- 12.4 In Paragraph 29, DFDS state that the IERRT consultation process is not comprehensive. The Applicant fundamentally disagrees with this assertion. The Applicant has sought to engage with DFDS but prior to and during the course of examination. The Applicant would, furthermore, make the point that a further commercial workshop would have little merit given that the Applicant,

as SHA, is confident that the additional vessel manoeuvres created by IERRT can be accommodated within the overall range and scope of daily vessel movements observed at the port.

- 12.5 In paragraph 31, DFDS seek to cast aspersions as to the validity of vessels used as part of the simulation process. They will be well aware of the reason why Jinling class vessels were used – albeit in the previous, unaltered model where they are less manoeuvrable than the modelling scenarios that DFDS themselves undertake. Furthermore, they state that these larger vessels are clearly not a proxy for the simulations undertaken with the smaller vessels, which are more like those that will use the IERRT in its initial opening years. The Applicant confirms that it has used simulations of a variety of vessels, with the most recent simulations – embarked upon partly at DFDS’s behest – using the Stena ‘T’ class vessel, considered to be the most accurate representation of vessels that will use the proposed IERRT in its opening years. If different vessels are likely to be proposed in the future, then additional simulations and a ‘soft start’ to manoeuvring will be undertaken. DFSD will be well aware of this process, having only taken recent delivery of their ‘Jinling’ class vessels which are much larger than the vessels for which the IOH was originally designed. Paragraph 34 addresses safe tolerances for bow thruster use. The points made are not agreed and can be dealt with should the ExA so wish.
- 12.6 Paragraph 35 deals with DFDS’s comments in respect of lost lock productivity. The Applicant refutes DFDS’s assertion that lock productivity will suffer when the proposed IERRT is operational. DFDS’s representation does not mention that the vast majority of a ship’s time when locking in to and out of the enclosed dock is actually spent in a static position, as the lock equalises water levels between the dock and estuary. When a vessel is in the lockpit – whose cycle takes generally about 30 to 45 minutes, there is ample opportunity for vessel movements along the frontage area. When managing vessel operations along the frontage, stemming areas have been delineated where vessels can wait, some of these for the lockpit.

Glossary

Abbreviation / Acronym	Definition
ABP	Associated British Ports
ALARP	As Low As Reasonably Practicable
CHA	Competent Harbour Authority
DCO	Development Consent Order
DFDS	DFDS Seaways Plc
EIA	Environmental Impact Assessment
EMS	European Marine Site
ES	Environmental Statement
Hazid	Hazard Identification
Hazlog	Hazard Log
HES	Humber Estuary Services
HMH	Harbour Master Humber
IERRT	Immingham Eastern Ro-Ro Terminal
IGET	Immingham Green Energy Terminal
Nav Sim	Navigational Simulation
NRA	Navigational Risk Assessment
NSIP	Nationally Significant Infrastructure Project
PA 2008	Planning Act 2008
PINS	Planning Inspectorate
Ro-Ro	Roll-on/roll-off
SHA	Statutory Harbour Authority
SoCG	Statement of Common Ground
SoS	Secretary of State for Transport
UK	United Kingdom