THE PROPOSED ASSOCIATED BRITISH PORTS (EASTERN RO-RO TERMINAL) DEVELOPMENT CONSENT ORDER

DEADLINE 10

Response on behalf of the Harbour Master, Humber

to request for further information by the Examining Authority under Rule 17, in its letter dated 12 January 2024

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Question from the ExA

1. In paragraph 18 of the Immingham Oil Terminal Operators' Deadline 8 submission [REP8-057] it is stated that "During the course of the simulations in December a Stena Master refused to continue with the runs as he stated that he would never operate in greater than 20 knots of wind or 2.5knots of tide ...".

Please confirm the Harbour Master Humber's (HMH) understanding of the circumstances and reasons for this alleged refusal to continue with the simulation runs

Response on behalf of Harbour Master, Humber

HMH was outside the room talking to Josh Bush at the time so did not hear what was said. In the circumstances, he cannot comment on exactly what was said as he did not witness it first-hand, but at the time put it down to frustration given that the two Stena Masters and Pilot present had been under constant pressure whilst conducting the simulations in quite challenging scenarios over a prolonged period of time in what was a difficult process.

As far as HMH recalls, having raised his concerns, the Stena Master continued to participate in the rest of the simulations.

From a technical perspective, it makes no sense for the master to state that he would never operate in 20 knots of wind or 2.5 knots of tide as he does this regularly and - to HMH's knowledge - has not made that comment previously in the many simulations in which he has participated.

HMH refers the Examining Authority to HMH9 [REP3-025] in which he explained why it can be challenging to operate in the simulated environment. As stated in that submission:

"In the simulations, the master or pilot will have a number of different scenarios to consider rather than a single plan and is dropped straight into the critical part of the manoeuvre with little time to assess the surroundings and, importantly, given the human element, is having every action critiqued by a large group of observers. The simulator itself, while advanced, is limited in the amount of situational awareness it can provide both technically and from a reality perspective. In real life, the master or pilot has the support of bridge team members and, on a well-run vessel, each experienced crew member has their own clear responsibility. HES has been using simulation for training, assessment and development purposes for almost 20 years

Question from the ExA	Response on behalf of Harbour Master, Humber
	and it is our experience that the conditions of simulation have value in assessing scenarios, taking into account their positive and negative aspects."
	This incident therefore highlights HMH's previous submission on how stressful simulations can be. As HMH stated in HMH9, simulations are fit for the purposes of assessing navigational scenarios and informing assessment of risk, as long as their limitations are understood.
2. Please comment on Runs 6, 9, 11 and 17 of the December 2023 navigational simulations [REP8-029] and what lessons have been learned from them, in particular with regard to potential effects on the operation of the Immingham Oil Terminal (IOT) and the disagreement about the approach speeds, as noted in the IOT Operators' submission [REP8-058, Appendices page 89].	The following comments are submitted on behalf of HMH in response to the direct questions posed, but he stresses to the Examining Authority the importance of the context of these runs which inevitably limits their usefulness for comprehensive assessment purposes. HMH has in mind the following points: a) The understanding that runs were carried out in challenging rather than routine conditions. b) A complete control failure of the vessel is an emergency scenario (particularly for an extended period of time) and is highly unlikely. c) The further assumption for simulation purposes that the unlikely emergency occurs at precisely the location which puts the IOT trunkway at risk. d) The trials did not allow for the seamanlike use of anchors in assisting with control of the vessel in an emergency situation. e) The trials assumed that the vessel could not regain her control systems (either primary or back up) in the time taken which often was many minutes.

Question from the ExA	Response on behalf of Harbour Master, Humber
	f) The trials assumed that no other tugs would be available in the area to assist during the emergency.
	The purpose of the simulations on 13/14 December was to test the ability of the Enhanced Operational Measures alone – that is, minimum tug provision with no other measures – in keeping the simulated vessels clear of the IOT infrastructure in particularly challenging conditions, bearing in mind that some of the tidal conditions tested occur for only a few hours once every fortnight.
	HMH highlights the importance of the context section of the HRW report [REP8-029] section 4.1.1
	The conditions under which these runs were undertaken would be assessed as part of more detailed work ahead of permitting a particular vessel to use a particular berth in which case the simulations would include consideration of other controls to ascertain what operating conditions should be applied.
	It is within this context that the HMH makes the following observations on the specific runs identified by the Examining Authority in question 2:
	Run 6 – The first two runs (a) and (b) were affected by an initial acceleration on the vessel as the simulation was started. This is a common occurrence when the "go" button is first pressed on the simulator and can have an unrealistic effect on the vessels dynamics which would not normally exist. Those present at the simulation were in agreement that these runs were of little value and that the simulated vessel should be run under control prior to introducing a failure so that the conditions at the point of failure were realistic.
	Runs 6(c) and 6(d) then demonstrated that the vessel allided with the IERRT infrastructure while the vessel was decelerating after a period of 8 to 12 minutes, during which time no other measures were applied (such as anchors). These runs

Question from the ExA	Response on behalf of Harbour Master, Humber
	were in the most challenging conditions for this exercise with a peak spring ebb tide, which occurs for a limited time per fortnightly tidal cycle, coincidental with a North Westerly Wind of 22.5 to 32.5 knots.
	These runs highlight to HMH that these conditions (a combination of peak ebb tide and strong North-westerly winds) are likely to be the main focus when carrying out more detailed work ahead of permitting a particular vessel to use a particular berth once the DCO is made, which would also consider other controls when assessing a vessel and applying operating conditions and may prohibit berthing in certain conditions.
	Run 9 – This run with the G9 vessel was again in the worst condition of a strong North Westerly wind and peak Spring ebb conditions and high initial vessel speed. The vessel was difficult to control. This approach would not be successful in these conditions in the absence of other control measures. With other control measures, however, HMH expects that it could be successful – this would be carefully evaluated at the appropriate time and again potentially unsafe berthings would be prohibited.
	Run 11 – HMH has no recollection or notes to be able to comment on Run 11 The HR Wallingford Report provides the following information:
	"11 - Layout A Start position B G9 Displacement: 50,600 t T: 8 m Tug 1: 70 tBP ASD CLF Tug 2: 50 tBP ASD SQ Peak spring ebb NE(045°) 27.5 knots ± 5.0 knots 2.5 knots De-prioritised by Simulation Team."
	Run 17 – This was a successful run although some discussion ensued as to the proximity of the tanker departing the Finger Pier to the IERRT vessel as that tanker swung round. While the Pilot was entirely comfortable with the manoeuvre it was agreed that the swing could be carried out further to the North if there was any concern.

Question from the ExA	Response on behalf of Harbour Master, Humber
	Impacts on IOT:
	In respect of Runs 6, 7 and 11, the purpose of these runs was to establish whether the simulated vessels would impact the IOT (regardless of whether they allided with the IERRT). While some runs were judged as marginal or fail in the context of a single tug without additional control measures in the most challenging conditions, HMH considers that with the additional application of other controls, which could of course include more limited berthing windows for larger vessels, then the IOT infrastructure and operations would be protected.
	In respect of Run 17, which assessed the ability of coastal tankers to continue to operate at berth 8 with the new infrastructure in place, HMH considers this to have no material impact on IOT operations although changes to manoeuvring strategies for vessels will need to be considered.
	Initial approach speeds:
	Throughout the process HMH was keen to stress that, in reality, operational guidance could be issued to limit the speed at which the vessel would make its final approach to IERRT, so as to control any increased risk to IOT from greater approach speeds. An example of this is the guidance already issued to large vessels using the Immingham lock system where transit speed is limited to 1 knot.
3. In paragraph 25 of [REP8-057] the IOT Operators report HMH's prior opinion that a "50 tonne" tug would be sufficient to arrest vessels approaching or departing from the proposed	HMH's "prior opinion" was based on HES's experience of managing actual vessel breakdowns in other parts of the Humber where the deployment of a tug (usually 50 tonne) in addition to anchors has been sufficient to control a vessel.
berths but note that this was not supported by the results of the simulations even for a Stena 'T' vessel. Please confirm if HMH has now	In answering this question HMH would again refer to the context of the trials, that is, the testing of extreme conditions and absence of other control measures. It is his considered opinion that, with other control measures in place, a 50 tonne tug would

Question from the ExA	Response on behalf of Harbour Master, Humber
revised his opinion and if yes, in what conditions would users of the Proposed Development be required to use a "70 tonne" tug?	be sufficient for a Stena "T" class vessel in most operating conditions. However, this would be thoroughly assessed as part of the risk management process required for the Humber MSMS pursuant to the Port Management Safety Code. In the unlikely event that it was established through detailed assessment with other control measures that a Stena T vessel still needed a 70 tonne tug in <i>some</i> conditions, that does not mean it would need a 70 tonne tug in <i>all</i> conditions. Based on experience of the trials carried out to date, this would most likely be during a limited period when peak ebb flows coincide with strong North Westerly winds, although this would be identified through more detailed and relevant assessment. For the avoidance of doubt the availability of towage on the Humber does not influence this assessment and if it is assessed that, in certain conditions, only a 70t tug would be effective, then this would be required and would be implemented, or the vessel would not be permitted to berth.
4. For the purpose of reporting by the ExA to the Secretary of State for Transport, does the HMH agree with the tests for acceptability of residual navigational risk after mitigation (control) being defined sequentially as follows, without there being conflict with the Port Marine Safety Code (PMSC) and the Guide to Good Practice on Port Marine Operations? If the HMH does not agree with sequence, please explain why not and provide alternative wording:	HMH recognises (a), (b) and (c) and considers them inextricably linked and not in direct conflict with the Port Marine Safety Code or "A guide to Good Practice on Marine Operations". With regard to (d) and (e), whilst HMH would not take issue with that sequencing, he maintains his position that (subject to the revised Requirement for Enhanced Operational Measures) both applied physical risk controls and applied operational risk controls should be identified and applied by the Marine Safety Management System in line with the requirements of the Port Marine Safety Code rather than imposed by means of a statutory instrument or, indeed, by formal direction. HMH has accepted the Applicant's proposal for provision of tugs as Enhanced Operational Measures in this specific case in recognition of the potentially serious consequences of vessel impact with the IOT trunkway.

Question from the ExA	Response on behalf of Harbour Master, Humber
a) navigational risk having been appropriately assessed, with due regard to representations from stakeholders; and	HMH refers the Examining Authority of his previous submissions on the inclusion of control measures in DCOs – see for example:
	HMH 18 [REP5-039]:
b) tolerable to the Duty Holder under the	
PMSC; and	"13. HMH would like to stress that it would not be appropriate for any particular controls – or the suite of possible MarNIS controls - to be regulated by means of the
c) reduced to ALARP after application of all reasonably practical risk controls; and	DCO itself. It is the SCNA that has statutory powers – through Parliament – to regulate for, and maintain, the safety of vessels using the Humber."
d) applied physical risk controls as agreed by the Duty Holder capable of being secured	HMH 25 [REP7-064] (page 14):
through an appropriately issued Statutory Instrument; and	"As HMH explained at ISH5, all vessels are considered on a sliding scale of risk – and that risk assessment is vessel specific. There are broad principles that apply to risk assessments based on vessels coming and going all the time, and while some
e) applied operational risk controls as agreed by the Duty Holder capable of being secured through appropriately issued directions by the	general assumptions can be made, the assessment is always performed on a vessel specific basis.
relevant Harbour Authority, regularly reassessed and appropriately adjusted as necessary.	In the view of the HMH, it is not appropriate for navigational management controls to be prescribed in the DCO – those powers have already been set out in legislation. The discretionary nature of the statutory powers to control vessel movements reflects the fact that there needs to be a degree of flexibility attached to such controls."
	HMH 23 [REP7-067] (Summary of Oral subs at ISH 5):
	"27. Further, in relation to operational controls, Ms Hutton re-iterated HMH's primary position which is that it is not necessary for the DCO to stipulate operational controls as these can be put in place through the separate statutory regime. Now the proposal for 1 tug at berth 1 would not, in the majority of circumstances, bind the hands of HMH/SHA if more is required. In other words, there is nothing in the DCO which

requires HMH/SHA to allow ships to berth in any circumstances. However, there is

Question from the ExA	Response on behalf of Harbour Master, Humber
	one circumstance where there may be conflict – in the unlikely situation that HMH/SHA needs to require a ship to berth at berth 1 without a tug if that was the safest place to berth a ship that happened not to have a tug. Therefore any operational controls would need to be subject to any contrary direction of HMH. HMH is very wary of parties coming forwards saying that they wish to see x, y and z control in the Order. Even if it were lawful for the DCO to do so it would not be desirable. If DCOs start to come forward with differing operational controls, it would risk introducing unnecessary complexity. Also, operational controls must be flexible to meet changing circumstances. There is an issue with fixing operational controls now if changes come about as a result of changing technology or developments."
	"3.4 The Harbour Master, Humber is satisfied that the methods of enforcing the operational controls described at paragraph 3.3.5 through publicity, directions and the operations manuals would be effective as this is how such requirements are generally promulgated and obeyed by vessel operators. He remains convinced that it would not be appropriate for the use of enhanced controls of this kind (tugs, pilots, speed limits etc.) to be prescribed in the DCO, given that Parliament has already determined where the statutory powers to make these operational decisions should lie. He also has reservations about whether it is open to the Examining Authority to find that such additional controls affecting the discretion conferred by Parliament are necessary to address the unfounded concerns expressed by third parties regarding independence and whether they could be imposed without the consent of the statutory harbour authorities."
5. In relation to the HMH's alternate wording for Requirement 18, suggested in the response to ExQ4 DCO.04.05 on a non-preferred basis [REP8-052], do you have any observations to	With regard to sub-paragraph 18(1):

Question from the ExA

make about some amendments to the text that the ExA considers should be made in the interests of aiding precision. Should the HMH not agree with the ExA's suggested amendments, please explain why that is the case.

- "18.-(1) In the event that the Statutory
 Conservancy and Navigation Authority
 determines, at its discretion, that impact
 protection measures are required in the
 interests of navigational safety in the River
 Humber, and upon receiving notification of that
 decision from the Statutory Conservancy and
 Navigation Authority, the undertaker must
 construct the impact protection measures as
 determined by the Statutory Conservancy and
 Navigation Authority. ...
- (3) No works for the construction of the impact protection measures may commence until the undertaker has obtained the written consent of the Statutory Conservancy and Navigation Authority (such consent not to be unreasonably withheld).
- (4) Upon receiving notification of the Statutory Conservancy and Navigation Authority's determination referred to in **sub-**paragraph **(1)**:

Response on behalf of Harbour Master, Humber

- the words "at its discretion" were included to make it crystal clear that the SCNA would be acting of its own volition in making such a determination. It is conceded on behalf of HMH that it is not necessary to spell this out.
- "in the interests of navigational safety" mirrors the text already used in the dDCO and is useful because it ties the reasons for which the SCNA may make such determination back to its usual statutory functions – that is, navigational safety. This makes it clear that the SCNA may not exercise its new power for any other purpose than the interests of navigational safety. It is respectfully submitted that this wording does not detract from the precision of the text.

With regard to sub-paragraph 18(3):

As the SCNA is required to act reasonably in any event, this wording is technically superfluous, particularly in the absence of an appeal procedure, and could be deleted without detracting from the meaning and effect of the provision.

HMH has no particular view on the sequencing of sub-paragraph (b). Again, the draft sought to follow the existing wording of the dDCO as far as possible.

Question from the ExA	Response on behalf of Harbour Master, Humber
(a) the undertaker must— within 10 business days, notify the operator of the Humber Oil Terminal and the MMO of that determination; and	
(b) within 30 business days, notify the operator of the Humber Oil Terminal and the MMO as to the steps it intends to take as a result of the Statutory Conservancy and Navigation Authority's notification. [Note: the ExA remains of the view that in sequencing terms this subparagraph should follow sub-paragraph (1)]	
(5) The detailed design referred to in sub- paragraph (2) [or sub-paragraph (3) if the running order of sub-paragraphs is altered in line with the ExA's comment above] must be:	
(a) within the limits of deviation shown on the relevant plans of the works plans;	
(b) in general accordance with the detail shown on the relevant engineering sections drawings and plans; and	
(c) in general accordance with the detail shown on the relevant general arrangement plans."	

Winckworth Sherwood LLP