



Immingham Green Energy Terminal

9.3 Applicant's Responses to the Examining Authority's First
Written Questions

(Responses to "Q1.11. Marine Movement and Operational
Safety")

Infrastructure Planning (Examination Procedure) Rules 2010
Volume 9

March 2024

Planning Inspectorate Scheme Ref: TR030008

Document Reference: TR030008/EXAM/9.3

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1 Introduction

Overview

- 1.1 This document has been prepared to accompany an application made to the Secretary of State for Transport (the "Application") under section 37 of the Planning Act 2008 ("PA 2008") for a development consent order ("DCO") to authorise the construction and operation of the proposed Immingham Green Energy Terminal ("the Project").
- 1.2 The Application is submitted by Associated British Ports ("the Applicant"). The Applicant was established in 1981 following the privatisation of the British Transport Docks Board. **The Funding Statement [APP-010]** provides further information.
- 1.3 The Project as proposed by the Applicant falls within the definition of a Nationally Significant Infrastructure Project ("NSIP") as set out in Sections 14(1)(j), 24(2) and 24(3)(c) of the PA 2008.

The Project

- 1.4 The Applicant is seeking to construct, operate and maintain the Immingham Green Energy Terminal, comprising a new multi-user liquid bulk green energy terminal located on the eastern side of the Port of Immingham (the "Port").
- 1.5 The Project includes the construction and operation of a green hydrogen production facility, which would be delivered and operated by Air Products (BR) Limited ("Air Products"). Air Products will be the first customer of the new terminal, whereby green ammonia will be imported via the jetty and converted on-site into green hydrogen, making a positive contribution to the UK's net zero agenda by helping to decarbonise the United Kingdom's (UK) industrial activities and in particular the heavy transport sector.
- 1.6 A detailed description of the Project is included in **Chapter 2: The Project** of the Environmental Statement ("ES") **[APP-044]**.

Purpose and Structure of this Document

- 1.7 This document contains the Applicant's responses to those of the Examining Authority's Written Questions 1 **[PD-008]** grouped under the theme "Q1.11. Marine Movement and Operational Safety". It represents one of a collection of eighteen such documents, each of which addresses a different theme.
- 1.8 Responses are ordered ascendingly by reference number, replicating the structure of the Examining Authority's Written Questions 1.
- 1.9 Responses are provided in a table. The text of the question appears on the lefthand side, with the Applicant's answer to its right.
- 1.10 Further materials pertinent to the Applicant's response are included at the end of the document as appendices where necessary.

2 Applicant's Responses to the Examining Authority's First Round of Written Questions

Q1.11. Marine Movement and Operational Safety	
Q1.11.1 Overall Assessment Approach	
Q1.11.1.1	
Question	Response
<p>Navigational Simulation Survey Basis for Assessment</p> <p>The NSS [APP-192] states that the development in Section 1 comprises the provision of two new jetties. Furthermore, Section 2.1 identifies that the NSS models two design options, neither of which comprise the Proposed Development. Clarify what has been assessed in the NSS, and, if this is different from the Proposed Development, explain why it provides a robust basis on which to consider the effects of the Proposed Development.</p>	<p>As noted, the navigational simulations were undertaken based on two layouts that were under consideration: these being Option 1B and Option 5 (as outlined in Section 2.1 of the Environmental Statement Appendix 12.B: Navigational Simulation Survey ("NSS") [APP-192]). Section 2.1, page 10 [APP-192] states "<i>The study was carried out such that any subsequent adjustment to the design, within the general operational envelope associated with Layouts 1 and 5, could also be assessed as feasible, as long as the berth orientation to the flows, and the relative location with respect to adjacent structures, remained similar</i>".</p> <p>The submitted design falls well within the operational and spatial envelope of the berths assessed during the simulations. Indeed, the berthing line and arrangements are nearly identical to those of the 1B layout (Figure 2.1, [APP-192]).</p> <p>Consideration of the manoeuvres for berth 1 on the Option 1B layout as simulated, provides an identical set of navigational challenges in terms of flows, wind and relationship with other navigational hazards as would be the case if the final design for the Project were to be examined on its own; it was therefore deemed unnecessary to undertake further simulations for the adopted layout.</p>

	<p>Figure 2.6 in the NSS [APP-192] shows the adopted layout design overlaid on the designs used in the simulations.</p>
<p>Q1.11.1.2</p>	
<p>Question</p>	<p>Response</p>
<p>Assessment of Final Design</p> <p>The ES states [APP-054, Table 12-1, p12-5] “Subsequent to completing the simulation study, the final Project design was reviewed by HR Wallingford and it was confirmed that the conclusions for the simulation (in respect of the layout option in line with the IOT) were applicable to the final design.” Identify where the evidence to support this statement is provided.</p>	<p>The final paragraph of Section 6: Conclusions and recommendations of the Environmental Statement (“ES”) Appendix 12.B: Navigational Simulation Survey [APP-192] states:</p> <p><i>“Subsequent to completing the study, a further design was being considered, referred to as the RIBA Stage 2 final design. This was examined and the conclusions presented in this report with respect to the IGET Berth 1 (Layout 1) can be applied to the RIBA Stage 2 final design, as shown in Figure 2.6”.</i></p> <p>More detail is provided in Chapter 2: Simulation configuration, Section 2.1: Port layout of ES Appendix 12.B [APP-192] where it is stated:</p> <p><i>“The study was carried out such that any subsequent adjustment to the design, within the general operational envelope associated with Layouts 1 and 5, could also be assessed as feasible, as long as the berth orientation to the flows, and the relative location with respect to adjacent structures, remain the same.”</i></p> <p>The final design is presented in Figure 2.6 (IGET RIBA Stage 2 final design option general arrangement). It is noted that the “<i>RIBA Stage 2 layout is:</i></p> <ul style="list-style-type: none"> • <i>No closer to the IOT terminal than IGET 1 for Layout 1, as was simulated;</i>

	<ul style="list-style-type: none"> <i>In a similar location and at a similar alignment to IGET 1 for Layout 1, as was simulated.</i> <p>Section 2.1 concludes by stating: <i>"The Layout 1 IGET Berth 1 was extensively examined in the study and the conclusions from this study can be applied to the RIBA Stage 2 final design."</i></p>
<p>Q1.11.1.3</p>	
<p>Question</p>	<p>Response</p>
<p>Modelling</p> <p>The NSS [APP-192, Paragraph 3.1] implies that further modelling is needed once the basis for operations is confirmed and that the vessels which will routinely visit the IGET are identified.</p> <p>a) Clarify what exactly has been modelled and how this compares to the ships that would visit IGET.</p> <p>b) Is any further modelling work required? If so, what and when will this be undertaken</p>	<p>The Applicant's response to parts (a) and (b) of the question is below:</p> <p>The manoeuvres to and from the berth were tested in simulation using a 243m x 42m products tanker. This is an appropriate model to represent the largest and most challenging vessels (from a ship manoeuvring point of view) expected to operate at the jetty. The purpose of simulations was to demonstrate that there were no substantial challenges that might make the berth inoperable for significant periods of time, or that would be unduly hazardous to other operations. It was not intended that it be used to demonstrate the detailed manoeuvres required for every vessel. It is expected, and normal practice, that the port operations at the jetty will be managed by the relevant Statutory Harbour Authority in conjunction with the operator, so that new vessels operating at the berth will be subject to a general risk assessment before arrival and a detailed risk assessment by the master and pilot at the time of any manoeuvre. It may, in due course, be appropriate to support this with further simulations or simulator-based familiarisation/training, but these are not a pre-requisite to demonstrate that the berth design is safe and that operations at the facility are feasible.</p> <p>It is worth reiterating that, at this stage in a project's development process,</p>

	<p>navigational simulations are deliberately designed to test the most extreme and challenging scenarios in terms of vessel size and weather/met-ocean conditions.</p>
<p>Q1.11.1.4</p>	
<p>Question</p>	<p>Response</p>
<p>Additional Survey Work</p> <p>The NSS [APP-192, Paragraph 5.1] refers to an additional two studies that should be carried out, firstly an analysis of the risk associated with an accidental gaseous discharge and the associated vapour cloud, and secondly a passing ship study considering the safe passing distance from the berths to minimise any interaction that may cause disruption of moored ships. Have these studies been carried out and submitted as part of the application? If not, explain why not and when these will be undertaken.</p>	<p>The Applicant can confirm that this analysis work has indeed been undertaken. Both concerns are relevant for the safety of ships and their crews but in different ways. A passing ship study was undertaken by HR Wallingford to verify that the existing marine exclusion zone in place for the protection of vessels moored on the Immingham Oil Terminal jetty heads was suitable for this Project . The study assessed the impact of passing ships on vessels moored at the proposed terminal from 'ranging' caused by the wake of passing vessels to determine the allowable passing speeds for vessels transiting the channel. The study concluded that, assuming the existing bylaws are maintained, the safe passing distance of 150m from a vessel moored at the IGET jetty is acceptable, as it currently is for the IOT, and also that a speed restriction of 5 knots be imposed – again, as per existing restrictions for vessels passing the IOT. A copy of this study has not been submitted to the Examination but can be submitted at Deadline 2 if required albeit the Harbour Master Humber (“HMH”) is content that this simply represents a slight extension of the existing restriction at the Immingham Oil Terminal and is easily implementable with no discernible implications for passing mariners.</p> <p>The second matter to be considered relates to the safety implications of explosion or toxic gas release from the IGET jetty. This issue does not directly impact the safety of navigation in the sense of vessels manoeuvring around each other and in and around marine infrastructure/natural features of the estuary. However, it has safety implications in that vessels could pass through areas of the estuary where</p>

	<p>these safety concerns to human health and wellbeing would impact upon them just as much as land-based human receptors. A Quantitative Risk Assessment ("QRA") process was undertaken to investigate the control and exclusion zones around the jetty facilities. The study outlines the lack of industry guidance explicitly focused on large-scale ammonia and carbon dioxide marine transfer operations. A QRA such as this is not generally disclosed to the public (and will not be submitted to the Examination) due to the sensitive nature of the material it contains in terms of public safety, which is often also commercially sensitive. The outcome of the studies will be incorporated into the safety report submitted under the COMAH Regulations 2015 to the HSE and Environment Agency.</p> <p>This QRA was reviewed in the context of setting a controlled safety zone imposed around vessels berthed at the IGET jetty for the safety of passing vessels and their occupants. The Applicant is still discussing the outcome of this assessment with the HMH , particularly in the light of limited guidance in the public domain regarding facilities such as those being proposed by the Applicant. The overall result of the assessment based on the current information, concluded the risks are within the broadly acceptable region based on a 150m marine controlled zone – which is already being proposed for the purposes of navigational safety. However further analysis is underway in partnership with HMH to establish a definitive position on the matter.</p>
<p>Q1.11.1.5</p>	
<p>Question</p>	<p>Response</p>

<p>Humber Passage Plan</p> <p>Is there a need, as a result of the Proposed Development, to amend the Humber Passage Plan. If so, who would be responsible for this and when would it be undertaken.</p>	<p>The Applicant confirms that the Humber Passage Plan would need to be updated as a result of the Project. This requirement is shown in Table 12-6 of Environmental Statement Chapter 12: Marine Transport and Navigation [APP-054]. The responsibility for this update would be with the Harbour Master Humber ("HMH"). As and when the Project is built, both the HMH and the Applicant, as Statutory Harbour Authority ("SHA"), will amend their Marine Safety Management Systems to incorporate any additional processes required for its operation. Amendments would then flow from here into the Marine Operations Manual for the port, the Pilotage Handbook and the Humber Passage Plan itself.</p>
<p>Q1.11.1.7</p>	
<p>Question</p>	<p>Response</p>
<p>Good Practice Guides and Safety Measures</p> <p>Further to the Action Point noted at ISH3 [EV5-004] [EV5-005], provide a full list of safety codes, management plans, good practice guides and safety measures, to which the proposed development must comply.</p>	<p>The Applicant has set out below a full list of the relevant safety codes, management plans, good practice guides and safety measures, which apply in relation to the operation of all harbour facilities on the Humber:</p> <p><u>Port Marine Safety</u></p> <ul style="list-style-type: none"> • Department for Transport's (DfT) 'Port Marine Safety Code' 2016 (PMSC) • The accompanying DfT guidance document 'A Guide to Good Practice on Port Marine Operations' 2018 (GtGP) <p><u>Vessel Traffic Services (VTS):</u></p> <ul style="list-style-type: none"> • International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Operational Procedure of Delivering VTS G1141

- Maritime and Coastguard Agency (MCA) Marine Guidance Note (MGN) - MGN 401 (M+F) Amendment 3 Navigation: Vessel Traffic Services (VTS) and Local Port Services (LPS) in the UK

The Applicant would note that there is more IALA and MCA guidance on VTS, however the Applicant has listed the main guidance documents above.

IMO and MCA Requirements for Vessels

In terms of vessels that will be visiting IGET, there are numerous International Maritime Organisation ("IMO") and Maritime Coastguard Agency ("MCA") requirements that will apply, as well as specialist codes based on the types of vessels.

The IMO and MCA guidance and requirements will only apply to the vessel and not the navigation, jetty infrastructure, and/or marine operations on the Humber or Port of Immingham.

Safety Requirements for Terminal

In addition, and as far as the IGET is concerned the following will apply (these are all 'land based' guidance (except for ISGOTT 6, IMDG and DGHAR which also apply to vessels)):

- International Safety Guide for Oil Tankers and Terminals (ISGOTT 6).
- The International Maritime Dangerous Goods (IMDG) Code
- Dangerous Goods in Harbour Areas Regulations 2016 Approved Code of Practice and guidance
- Approved Code of Practice and guidance
- HSE Safety in docks. Approved Code of Practice

- HSE Managing health and safety in dockwork
- HSE A guide to the Control of Major Accident Hazards Regulations (COMAH) 2015
- HSE Application of the Control of Major Accident Hazards Regulations 2015 (COMAH) to transport and directly related temporary intermediate storage activities and transport in pipelines.
- HSE Safety report assessment guidance (Technical aspects) – COMAH.

Application of marine safety on the Humber under the PMSC and GtGP

Each SHA (Humber and Immingham) also has a Marine Safety Management System (MSMS) in line with the requirements of the PMSC various procedures and byelaws, harbour and sections directions (issued by the Harbour Master on behalf of the SHA) that will need to be followed, examples of which were listed in the NRA [[APP-191](#), Section 3.3]:

- Humber Passage Plan and Berthing Procedure
- Notice to Mariners – River Humber
- Pilotage Directions for Ships to be Navigated within the Humber Pilotage Area
- These are implemented into Humber's and Immingham's (to a lesser degree) MSMS as the following guidance and procedural documents:
- Marine Safety Management System (MSMS)
- Humber and Immingham MSMS
- Port Marine Operational Procedure Manual: Overview of the ABP Marine Safety Management System
- Vessel Traffic Services

	<ul style="list-style-type: none"> • IALA Operational Procedures for VTS • ABP Standard Operating Procedures for VTS • ABP PAVIS – VTS Database Reference Guide • ABP Standard broadcasts VHF ch 14 • ABP Standard broadcasts VHF ch 12 • ABP Early Disembarkation (Pilot) Procedure • ABP Adverse Weather Procedure <p><u>Pilot Operations</u></p> <p>There is also the following guidance applicable to pilot operations for the vessels:</p> <ul style="list-style-type: none"> • ABP Humber Pilot Handbook • ABP Humber Passage Plan 2021 • ABP Humber Pilotage Directions 2016 (reviewed and updated) • ABP Humber Pilot Working Arrangements • ABP Safe Access Arrangements • Occupational Standards for Pilots • IMO Pilot Ladder Arrangements • ABP Humber – Pilot Launch Crew Instructions • Towage • ABP Humber Routine Towage Guidance and Procedure • ABP Humber Non-Routine Towage Guidance and Procedure • ABP Humber Towage Providers
Q1.11.2 Vessel Movements	
Q1.11.2.1	
Question	Response

Vessel Movements

The ES [APP-044, Paragraph 2.6.2] identifies that the Terminal would be able to accommodate up to 292 vessel calls per year, with up to 12 of these calls associated with the hydrogen production facility. The vessels which make up the remaining 280 calls to the Terminal are expected to serve the future CCS market and other liquid bulk energy product markets. Please confirm:

- a) What level of ship movements have been assessed/modelled within the NRA and the ES? Is it only 12 movements associated with the import of ammonia, or have all potential movements been considered. If so, provide justification.
- b) In relation to the 280 ships not associated with the hydrogen production facility, what assumptions have been made around the type and size of these ships.
- c) Are any specific other measures required to accommodate the 280 vessels and their potential cargo? Has everything that will be required been included within the application (both marine and landside), assessed in the ES and contained within the Order Limits?

a) The **Navigational Risk Assessment ("NRA") [APP-191]** was based on a worst case assessment of 292 vessel calls per year. This is confirmed throughout the NRA, for example (**Section 7.4, Paragraph 1**):

"The Terminal would have capacity to accommodate up to 292 vessel calls per year... The total vessel numbers have been assessed as the worst-case scenario in terms of potential navigational effects."

The **Environmental Statement ("ES") Chapter 12: Marine Transport and Navigation [APP-054]** also stated this figure (**Paragraph 12.8.52**):

"The Terminal would have capacity to accommodate up to 292 vessel calls per year...."

It was also in the consultation responses [**APP-054 Table 12-1, Page 12-9**] where it is stated:

"...the maximum vessel arrivals for the jetty are now 292 vessels per annum... The maximum forecast throughput for the jetty has been assumed as a reasonable worst case assumption for both the navigational risk assessment ("NRA") and for the environmental impact assessment ("EIA") which have been undertaken for the Project."

Therefore, all potential ship movements associated with the jetty have been assessed. During the course of the NRA, the 292 vessel calls value is stated in the minutes of the IGET Hazard Review Workshop which were issued to navigational stakeholders, including APT, DFDS and CLdN, on 26 May 2023 [**APP-191, Appendix A**]. The Hazard Log (including risk assessment) was prepared based on 292 vessel calls, and issued to stakeholders for comment on 5 June 2023. There were no comments and the Hazard Log is included within the NRA [**APP-191, Appendix B**].

b) A total of 292 calls per year was assumed as the worst case for navigational impacts as this is the maximum capacity of the jetty. The maximum vessel dimensions were assumed to be 250m length overall and 12.8m draught for the ammonia carriers. A range of CO2 carrier sizes were also considered.

c) Other (non-ammonia) vessels were considered within the NRA, as discussed in answers a) and b). The risk control (mitigation measures) identified in the NRA and ES are applicable and appropriate for managing the marine navigational risk associated with these other vessels, in a similar manner to the ammonia carriers. These measures were assessed in the NRA to reduce all the risks to Tolerable and As Low As Reasonably Practicable ("ALARP") levels.

The Project includes all infrastructure (both marine and landside) necessary to accommodate the handling and processing of liquid ammonia associated with the hydrogen production element of the Project. Work No. 1 also includes the infrastructure necessary to accommodate vessels importing CO2.

However, for the import of non-ammonia cargoes (including CO2), additional supporting landside infrastructure (i.e. a further new storage or processing facility or, at the very least, a landside connection to an existing storage facility or distribution network) would be required. Furthermore, for import of non-CO2 cargoes, additional or different marine side infrastructure on the topside of the jetty and jetty access road may also be required. This infrastructure is not consented through the Development Consent Order and would trigger the need for further consents and approvals, along with the associated assessment of impacts through the Environmental Impact Assessment process, as necessary.

	<p>This, however, would need to be determined on a case-by-case basis at the appropriate time.</p>
<p>Q1.11.2.2</p>	
<p>Question</p>	<p>Response</p>
<p>Marine Congestion</p> <p>Are there any economic implications on existing ports as a result of the implementation of navigation controls and any subsequent marine congestion within the estuary.</p>	<p>The Applicant does not consider that marine scheduling should be a factor which will weigh heavily upon the facts of the case. The Harbour Master Humber ("HMH") (and individual port Statutory Harbour Authorities ("SHA")) impose manoeuvring restrictions upon vessels, as they are empowered to do and indeed as required under those SHA's powers of direction, enshrined in various pieces of enabling legislation but ultimately derived from the Harbours Docks and Piers Clauses Act 1847. These controls already exist and are suited to accommodating extremely variable vessel numbers; such is the nature of a busy merchant trading estuary where one day is never the same as another.</p> <p>For the reasons given below the Applicant does not consider that there will be economic implications on existing ports as a result of the implementation of navigation controls and/or any subsequent marine congestion or scheduling issues. In short, marine congestion will not occur as explained below and consequently there will be no economic implications arising.</p> <p>Congestion – insofar as such a concept exists in shipping terms – is not considered to be a material consideration in the context of the Humber Estuary harbour area, particularly when considering that the Project contemplates, as a worst case and over-estimate, one additional vessel movement per day. This level of variation sits well within the normal bounds of natural variation. Using the term congestion implies a traffic-related scenario where all road users – whilst complying with their legal</p>

safety responsibilities – are essentially uncontrolled in terms of usage and the manner of their usage. Within a SHA area of jurisdiction, however, this level of uncertainty simply does not exist as all vessel traffic is scheduled, managed and monitored very carefully. Having regard to the very small proposed increase in traffic (even on a worst case assessment), and the ability of the existing management and control systems to cater for much greater 'natural' variations in vessel movements, it is not considered that any additional vessel movements are simply absorbed into the overall level of shipping activity at any one time.

Further there is a general downward trend in vessel visits to the Humber, as shown in the figure below. The figure indicates 'pilotage acts' which are an effective indication of large merchant vessel movements. A pilotage act would include a vessel arriving, sailing, or moving within the confines of the estuary. The figure also does not include cancellations so represents an inflated number.

Whilst the effects of COVID-19 can be seen in 2020, followed by a corresponding readjustment in 2021, the overall trend is downwards, with only 57 pilotage/Pilotage Exemption Certificate ("PEC") acts (on average per day) in 2023 compared to 67 in 2014. Whilst the Applicant accepts that this analysis is necessarily high level, as it does not take into account specifically where these movements take place, it should nevertheless act to reassure the Examining Authority that estuary users will not suffer undue delays due to congestion.

The pilotage act figures have been provided by Humber Estuary Services ("HES"), who report on these every year in their estuary users' liaison meeting (effectively an AGM). The data indicates two main points.

Firstly, that HES manage the arrival and departure schedules for all

vessels within their SHA area – effectively they are managing the timetabling of movements for the benefit of all estuary users. Given that this vital role falls outside of the ambit of the IGET proposal – and indeed sits squarely within the oversight of HMH, marine scheduling is therefore not a matter which requires regulation or control via this Development Consent Order. The HMH and his staff manage the vessel scheduling process by combining a number of different factors, some fixed and immutable, and some involving a degree of flexibility/interpretation. Fixed elements will include the safety rules under which movements are managed, the vessel's size and manoeuvring characteristics and prevailing met-ocean conditions. There are also variable elements, for which HMH can exercise some flexibility and judgement to assist with the fair and efficient functioning of the harbour. For example, whilst on passage within the estuary, faster and more agile liner Ro-Ro vessels are often afforded the opportunity to 'overtake' slower, larger and more ponderous vessels.

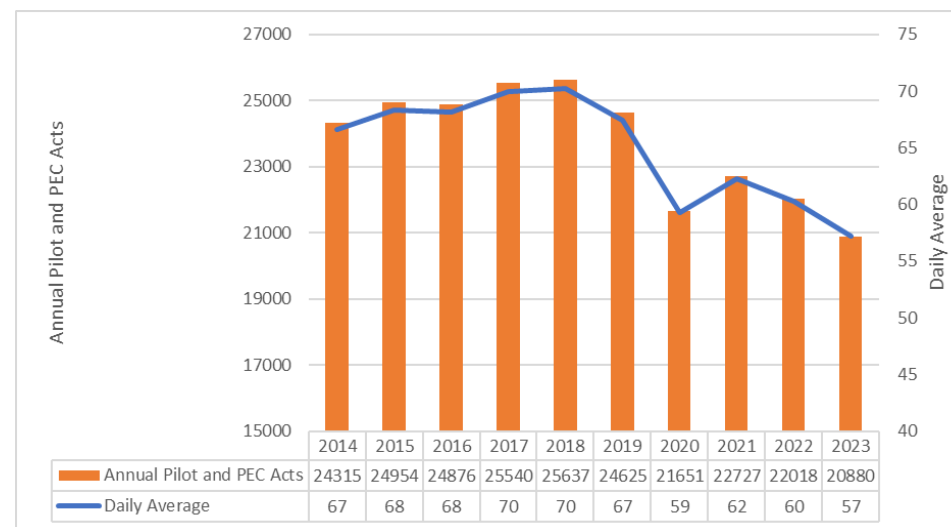
The second crucial reason why historic vessel movement figures are relevant in this context is to demonstrate the overall downward trend in vessel visits. This is combined with a corresponding increase in cargo parcel sizes but overall fewer vessels will inevitably mean that existing estuary users will have additional flexibility in terms of scheduling than has historically been the case.

The IGET jetty will operate in a very similar manner to the three existing Immingham Oil Terminal jetty heads and indeed, in terms of vessel movements, will simply be viewed – for maritime safety and scheduling purposes – as an extension to that facility.

The huge variability in vessel visits on a day-to-day basis can be aptly illustrated by the existence in many of the ports of 'common-user

quaysides' which are actively marketed towards individual 'on-off' cargoes. It is the role of a port to actively seek out these 'tramp' cargoes for its existing facilities so that its existing infrastructure can be used to its full viable extent. This necessarily creates huge variation in the number of vessel transits every day, so the addition of one vessel per day at the IGET jetty will have no discernible impact upon scheduling.

The figure below is a graphical representation of the HES reported 'pilotage act' figures.



Q1.11.2.3

Question

Operation Requirements

Response

a)

<p>a) Are there any operation implications on existing ports as a result of the Proposed Development?</p> <p>b) Is there sufficient capacity in terms of tugboats to adequately service the proposed IGET arrivals and departures?</p>	<p>In an estuary as busy as the Humber, one extra vessel per day (which in functional terms represents theoretical worst case would have no discernible impact upon the operation of any of the existing ports. It should also be borne in mind that overall vessel transit numbers in the Humber are in fact decreasing, a concept which is examined in more detail in Q1.11.2.2.</p> <p>The effects from the Project on the existing operation for the port – and indeed any port facilities on the Humber upstream of Immingham - are anticipated to be:</p> <ul style="list-style-type: none">• Application of a speed restriction of 5 knots for vessels passing the IGET jetty head when a vessel is present, which is exactly the same as that required for the three Immingham Oil Terminal ("IOT") jetty heads• Maintenance of a 150m exclusion zone around the IGET jetty head when a vessel is present, just like IOT berths 1 to 3. <p>IGET's jetty head will therefore effectively resemble – at least for passing mariners – an additional jetty head extension to the Immingham Oil Terminal.</p> <p>b)</p> <p>Tugs are provided on a purely commercial basis in response to demand. The industry and hence the supply of tugs is market driven. Like any other product or service in a freely trading marketplace the capacity in terms of tugboats increases and decreases in response to the forces of supply and demand.</p>
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	<p>If additional tugs beyond those currently operating are necessary due to the increased number of vessels visiting the new IGET jetty – noting that this is in the context of an ongoing trend in a reduction in annual vessel visits – then the market can be expected to respond and further tug provision be made available. Indeed, the action of building more infrastructure stimulates the tug market by creating an increase in tug provision as the market responds to additional demand that would be beneficial in terms of stimulating economic growth and increasing capacity.</p>
<p>Q1.11.2.5</p>	
<p>Question</p>	<p>Response</p>
<p>Departure Procedures</p> <p>Explain what the process would be to regards to preventing concurrent departures from IOT and IGET.</p>	<p>The existing management and control measures, commensurate with a Statutory Harbour Authority's compliance with the Port Marine Safety Code, which are already used in the estuary and the port will be directly applied to the new IGET jetty head. These existing processes are well suited to accommodating a variable number of merchant vessels arriving and departing every day. As explained in the response to Q1.11.2.2, one additional vessel per day – which is roughly speaking what the IGET jetty will accommodate at its very busiest – will not be material in the context of the management and control of in excess of 20,000 merchant vessel movements a year.</p> <p>The existing Statutory Harbour Authority ("SHA") area of the Port of Immingham is one of the busiest in the country, leaving aside the passing 'through' traffic that makes up the full Humber figure. The Applicant has – in partnership with the SHA for the estuary, as administered by Harbour Master Humber ("HMH") and his staff – developed a well-honed set of processes to manage many vessel movements at any one time in</p>

	<p>different parts of the harbour. Part of that control process is to ensure that each vessel, when given permission to move, dock or sail, has sufficient 'sea room' to afford safe manoeuvring and transit.</p> <p>In the case of IGET, in marine management and scheduling terms it will function in the same way as the Immingham Oil Terminal ("IOT"). Vessels arriving and departing these jetty heads are generally tidally restricted, meaning that they normally form part of a convoy system and have to abide by a special 'passage plan'. HMH's staff ensure that all vessels are given specific and individual orders as to when, how and where to move and are monitored on every step of the journey. The instructions given to vessels are specific in terms of speed and 'check-in' times at various marker points. These existing arrangements would ensure that concurrent departures from IGET and IOT do not occur.</p>
<p>Q1.11.2.6</p>	
<p>Question</p>	<p>Response</p>
<p>Overall Shipping Movements</p> <p>a) In terms of daily shipping movements, what number of commercial shipping movements do you consider the Humber can accommodate safely and efficiently.</p> <p>b) What factors influence this?</p> <p>c) How do current shipping movements compare with that capacity number?</p> <p>d) What is the effect of the proposed development upon this capacity?</p>	<p>a), b) and c)</p> <p>Given the size of the estuary and the overall spread of port infrastructure within its navigable sections it is not possible to estimate with any certainty the current capacity of the Humber in terms of daily commercial shipping movements. The capacity of the Humber in these terms will depend on the inter-relationship between a number of factors which necessarily vary both day to day and over time. These include the type of cargo being handled, the size and type of the vessels, the number of ready berths and dwell time of vessels on the berth.</p> <p>Existing management and control measures which are already used in the estuary and at the Port of Immingham will be directly applied to the Project in the same way as any other part of the port. These measures are well</p>

suited to accommodating a variable number of merchant vessels arriving in the estuary every day and so it can be assumed that one additional vessel per day – which is roughly speaking what the IGET jetty would be able to accommodate at its very busiest – would be barely noticeable in the context of all Humber Estuary merchant vessel movements.

There is a general downward trend in vessel visits to the Humber, as reported by Humber Estuary Services in their annual estuary users' meeting. Taking a broad daily average number of movements per year (based on Pilotage Exemption Certificate ("PEC") or pilotage acts) for 2014 was 67. Slight increases in subsequent years saw a peak at 70 per day in 2017 and 2018 followed by a reduction to 67 in 2019 and a further drop to 59 in 2020. 2021 saw a 'bounce back' effect after COVID-19 to 62 but this has subsequently declined to 60 in 2022 and 57 in 2023.

d)

Given the ongoing downward trend in vessel visits to the Humber in addition to the fact that there would be, at most, one additional vessel visit a day as a result of the Project (which is in any case an over-estimate based on the Project's worst case assessment for marine traffic volumes of up to 292 vessel calls per year) the Project would have a negligible impact on vessel capacity on the Humber. There is significant variation from day to day in terms of the number of vessel visits on the Humber. The increase in vessel visits attributable to the Project sits well within the scope of normal daily variation.

Q1.11.3 Operational Safety

Q1.11.3.1

Question	Response
<p>Safe Passage of Vessels</p> <p>The NSS [APP-192, Page 37] identifies that “The wider approach lane may make it more difficult for other vessels to pass.....During the simulation run debrief discussions, the pilots considered that most vessels on the river could safely coordinate to pass in the same manner as with the existing situation.” Clarify this statement as the inclusion of the word most seems to imply that there may be some existing vessels that may not be able to safely pass.</p>	<p>The word ‘most’ was selected to describe a situation which cannot be described with 100% certainty. There are situations in which, due to the specific nature of the vessels involved, or the prevailing circumstances and conditions, it may be considered imprudent or beyond the normal practice of good seamanship for vessels to attempt to pass. This would be no different from the position in respect of existing operations on Immingham Oil Terminal (“IOT”) berths 1 to 3, which are managed at present by a combination of Vessel Traffic Service (“VTS”), pilots, Pilotage Exemption Certificates (“PECs”) holders and masters in a professional manner.</p> <p>In summary, therefore, the presence of IGET would not represent any greater a challenge or hazard in terms of manoeuvring than the existing IOT jetty heads. The inclusion of the word ‘most’ in this context in the Navigational Simulation Survey (“NSS”) [APP-192] does not indicate any underlying concern in respect of navigation hazard. It is simply used to avoid applying a sweepingly definitive statement to a situation which is, by definition, dynamic.</p>