



# Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

## The Applicant's Comments on UK Chamber of Shipping's Deadline 5 Submission

**Revision A**

Deadline 7

July 2023

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## **1 The Applicant's Comments on UK Chamber of Shipping Deadline 5 Submission**

1. The Applicant noted at Deadline 6 in The **Applicant's Comments on Responses to the Examining Authority's Third Written Questions** [REP6-013] that UK Chamber of Shipping's Deadline 5 submission [REP5-097] would be addressed in further detail (if required) at Deadline 7.
2. This document presents the Applicant's updated position on the UK Chamber of Shipping Deadline 5 submission [REP5-097], which was deferred from Deadline 6.

**Table 1 The Applicant's comments to UK Chamber of Shipping responses to the Examining Authority's Third Written Questions**

ID	Question	UK Chamber of Shipping Response	Applicant's Updated Position at Deadline 7
<b>Q3.19. Navigation and Shipping</b>			
<b>Q3.19.1 Navigational Risk and Effect on Navigational Safety</b>			
Q3.19.1.5	<p><b>Assessment of Navigational Risk and Safety</b></p> <p>With regards to the concerns raised relating to navigational safety from the MCA [REP1-117] [REP1-118] [REP3-134] [REP4-047], together with the Applicant's submissions (including the NRA [APP-198] and the Navigational Safety Technical Note [REP3-031]) comment on whether you would consider the remaining sea room past the proposed windfarms, particularly west of the DEP north boundary, as representing an unacceptable risk to navigational safety or have an acceptable and safe width of sea room? Explain with reasons and with reference to these submissions from MCA and the Applicant.</p>	<p>The area is complex and used by a diverse range of marine users. The Chamber first raised concerns with the negative impact on navigational safety of the proposed sites in August 2018, during the Crown Estate's Round Three Extension consultation. When asked to provide comments and views on the location of the site, the potential constraints that may affect it, and its overall suitability, the Chamber stated in relation to DEP:</p> <p><i>The Chamber does not have any specific navigational concerns at this stage given the insufficient information provided on layout or placement of potential turbines however has serious navigational concerns over the suitability of western extent of the northern element to Dudgeon extension and the intersection with a high-density route. Accordingly, the Chamber objects to the full extent of the boundary due to the constriction of safe navigational sea room and does not consider the site suitable.</i></p> <p>The above paragraph was submitted to Equinor on 9 June 2021 as part of the UK Chamber of Shipping Response to Dudgeon and Sheringham Shoal Extension Projects Section 42 of the Planning Act 2008 consultation and in the Chamber's assessment this view has not changed.</p>	<p>The Applicant noted the comments from the Chamber of Shipping made at the time of lease area definition and re-iterated in its section 42 consultation response. As noted, the Applicant discussed the concerns with the Chamber of Shipping during a meeting in June 2021. The Applicant had regard to the Chamber of Shipping's concern, however the <b>Navigation Risk Assessment (NRA)</b> [APP-198] subsequently demonstrated that navigational risks are As Low As Reasonably Practicable (ALARP).</p> <p>At the time of the <b>Supporting Documents for the Applicant's Responses to the Examining Authority's Fourth Written Questions</b> The Applicant notes that the Chamber of Shipping were consulted throughout the <b>Navigation Risk Assessment (NRA)</b> [APP-198] process, including at three meetings (October 2020, July 2021, and February 2022) and at the hazard workshop (August 2021). These discussions all informed the final <b>Statement of Common Ground with UK Chamber of Shipping</b> [document reference 21.23], which 'Agrees' the methodology used within the NRA and EIA and notes <i>'The Chamber believes the western extent of DEP North unnecessarily protrudes into the Outer Dowsing shipping channel<sup>1</sup> increasing collision and allision risk. In what is a complex sea area, the Chamber believes the project protrusion is a sub optimal use of seabed.</i></p>

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		<p>The Chamber does not have a full charting suite to provide its own diagrammatic analysis of the array area but has estimated the impact of the western extent of the northern array area of DEP would reduce available sea room for two-way traffic into a channel with less than half the size afforded by the current sea space, from approximately 4nm to 2nm. This would not permit vessels to continue to use a safe clearance distance of 1nm from both the wind farm and the shoal and pass another vessel.</p>	<p><i>This disagreement however is not material to the in-isolation impact significance of the wind farm array areas. The Chamber however advocate for a commitment not to construct Wind Turbine Generators to the western extent of the DEP North array area to provide greater sea-room and improve navigational safety.</i></p> <p>As stated by the Applicant during Issue Specific Hearing 7 (ISH7) [EV-095, EV-096], the NRA process has demonstrated that the sea room to the west of DEP North is suitable for safe navigation.</p> <p>Whilst it is noted the Chamber of Shipping do not have the charting suite to provide their own diagrammatic analysis, at ISH7 Mr Merrylees stated that <i>"in relation to the ultimate edge to edge, the Chamber would align itself with the position of Trinity House"</i> (ISH7 Recording, Timestamp 56:20 [EV-095]).</p> <p>In Trinity House's Deadline 5 Submission [REP5-096] Figure 4 (Buoy to Buoy Line and distances maintained) show a baseline width of navigable area to be 3.83nm in the Outer Dowsing Channel and this to be reduced by between 0.79 and 0.83nm if the full buildable area of DEP North was used. This leaves a future case navigable width of 2.99-3.03nm, a reduction of 22%.</p> <p>The Applicant notes that resultant sea room is greater than the 2nm mentioned by The Chamber and is sufficient for vessels to apply a 1nm safe clearance to both the DEP North array and the Triton Knoll controlling depth contour of 10m when transiting past DEP North with between 1.03 and 0.99nm of space to pass other vessels and is greater than the 0.84nm that the MCA suggested is adequate sea room to</p>

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			allow four vessels to safely pass each other [see REP3-134].
		<p>The significant reduction in sea room and identification in APP-198 of an average of 16 commercial vessels passing between through the northern channel (Routes 3 &amp; 5), a considerable number, and this is before additional project, offshore, fishing, recreational traffic is taken into consideration, all of which will inevitably increase collision risk.</p>	<p>As stated by the Applicant during ISH7 [EV-095, EV-096], the NRA has been conservative in its assumptions on traffic volumes within its modelling process. In excess of a 25% increase in commercial traffic passing DEP North was assumed.</p> <p>The value referenced by the Chamber of Shipping includes these conservative assumptions, and is inclusive of commercially routed vessels in addition to oil and gas vessels and any existing wind farm traffic. Both the long term AIS data and the 28 days of vessel traffic survey data (which includes non AIS fishing vessels) studied for the <b>NRA</b> [APP-198] indicates the Outer Dowsing channel is not a busy area for fishing (estimated less than one fishing vessel per day on average in both datasets, noting this includes all fishing vessels regardless of activity i.e., both actively fishing and in transit).</p> <p>Impacts to all vessel types were assessed in the NRA, with the process determining the risk to be ALARP.</p>
		<p>Upon review of the Applicant's documents to respond to this question, the Chamber has elevated concerns for navigational safety that within APP-198, the analysis undertaken specifically for tankers within the shipping and navigation study area during the survey period is limited. Section "14.1.3.2 Tankers" highlights that an average of 13 vessels per day transit the area and provides that the main destinations recorded were the Humber and mainland Europe. The NRA does not provide any more detailed analysis into tankers, including size, draught, and potential manoeuvrability constraints, including typical passing</p>	<p>The Applicant notes that the value of 13 tankers per day referenced by the Chamber of Shipping is for the study area as a whole, and not just the tankers passing DEP North.</p> <p>As stated by the Applicant during ISH7 [EV-095, EV-096], larger vessels including tankers tend to avoid the general sea area off the Norfolk Coast which includes various shallow banks including those in proximity to the SEP and DEP projects. Average draught of commercial vessels passing DEP North through the Outer Dowsing Channel is 6.1m, and 90% of commercial vessels passing DEP North have</p>

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		<p>distance off OWFs. Given the potentially hazardous and environmentally significant cargoes that such vessels carry and their often-restricted manoeuvrability due to length and draught the reduction in available sea room for two-way traffic into a channel less than half the size afforded by the current sea space is a particular concern.</p>	<p>draughts of 8m or less. This broadly aligns with the corresponding values for tankers only – average of 6.0m and again approximately 90% recorded a draught of less than 8m.</p> <p>The regular operator outreach undertaken for the <b>NRA</b> [APP-198] included outreach to tanker users within the study area. No such users raised concern over DEP North. Tanker specific content was also shared at the hazard workshop (see <b>Appendix D</b> and <b>Appendix E</b> of the <b>Applicant's Comments on the Maritime and Coastguard Agency's Deadline 6 Submission</b> [document reference 21.11])</p> <p>Impacts to tankers were assessed in the <b>NRA</b> [APP-198] and were found to be ALARP. This included quantified assessment and consideration of potential pollution risk.</p>
		<p>The application of safety zones, which are expected to be used during all phases of the project, have the potential to reduce available sea room by a further 500m if located at the edge of the red line boundary, which can only be expected under the assumption of worst- case scenario. Such a reduction in what is already a very constrained area would further limit traffic and be unacceptable to navigational safety.</p>	<p>Safety zones will be applied for post consent in line with industry standard practice (temporary safety zones during the construction and maintenance phases). Section 95 and Schedule 16 of the Energy Act 2004 details the standard dimensions for safety zones which can be maximum of 500 metres measured from the foundation (not the blade tip). When considering this value alongside the minimum rotor diameter (235 metres (m)) and the Offshore Temporary Works Area (OTWA) (Work No 6A, 6B and 6C) (see <b>Works Plans (Offshore)</b> [document reference 2.7]) of approximately 200m (equalling approximately 317m i.e., half rotor diameter plus OTWA) there is anticipated to be minimal further reduction on available sea room. Further, it is noted that during the construction phase these safety zones</p>



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			<p>are likely to be within the buoyed construction area that will be agreed with Trinity House.</p> <p>The Safety Zones figure (included in A.2 of <b>Supporting Documents for the Applicant's Responses to the Examining Authority's Third Written Questions</b> [REP5-050]) shows the safety zone extents relative to the modelled future case traffic.</p> <p>Therefore, the Applicant (as per the <b>NRA</b> [APP-198]) where the presence of safety zones are assessed) concludes there is no effect on navigational safety.</p>
		<p>In summary, in the Chamber's view, the reduction in sea room between the western extent of the northern array of DEP and the shoaling area does not provide an acceptable width of channel for safe navigation at present.</p>	<p>As stated by the Applicant during ISH7 [EV-095, EV-096], the NRA process has demonstrated that the sea room to the west of DEP North is suitable for safe navigation.</p> <p>The <b>NRA</b> [APP-198] found all impacts including those associated with collision risk to be ALARP. The <b>Navigational Safety Technical Note</b> [REP3-031] demonstrates that removal of the NW extent of DEP North to accommodate the current full width of traffic does not impact the findings of the NRA i.e., that impacts are ALARP assuming the full site boundary.</p>
		<p>Holistically, the Chamber believes that for the long-term safe co-location of OWFs and commercial shipping, it is incorrect for developers to foresee the safe distance that mariners transit off OWFs as area for development, as this forces commercial vessels into more constrained areas, passing each other ever closer with increasing collision and allision risk. It is well recognised and accepted by all parties that offshore wind deployment in the UK EEZ is going to continue to increase.</p>	<p>Cumulative impacts were fully assessed in the <b>NRA</b> [APP-198] with all impacts found to be ALARP.</p>



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		<p>It is highly unlikely that navigational safety will be improved by the presence of a wind farm, so the Chamber strongly advocates that the significant pipeline of planned offshore wind farms avoid and minimise risk to navigational safety as much as possible. Poorly planned cumulative proliferation of offshore wind farms has a strong potential to become an existential threat to the safety of navigation for commercial shipping and have a significant adverse impact on the flexibility and efficiency of shipping industry. Encroachments by developments into busy shipping channels and reduction in navigational safety at this relatively early phase of offshore wind proliferation in the UK EEZ will only be exacerbated in the future.</p>	
Q3.19.1.6	<p><b>Disruption or Economic Loss</b> Would the Proposed Development location avoid or minimise disruption or adverse transit time changes, including economic loss to the shipping and navigation industries, with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, lifeline ferries, or recreational users of the sea?</p>	<p>The proposed developments do not directly impact upon approaches to port, nor hinder port access however are located in a busy and complex area for seagoing traffic and marine users, with APP-198 identifying on average 45 commercial vessels passing between the proposed developments each day, whilst excluding project, offshore, fishing, and recreational traffic etc. These vessels comprise strategic routes essential to regional, national and international trade as well as international scheduled ferry services.</p> <p>Accordingly, any reduction in navigable sea room for vessels to stay a safe distance from infrastructure, natural navigational constraints, and have adequate passing space between vessels to comply with Collision Regulations will have consequences.</p> <p>Those consequences are numerous; vessels may proceed with greater caution, thereby slowing their speed to delay their passage or operate at a less efficient engine level; vessels may determine that</p>	<p>The Applicant agrees in terms of port approaches and port access.</p> <p>As stated by the Applicant during ISH7 [EV-095, EV-096], the NRA process has demonstrated that the sea room to the west of DEP North is suitable for safe navigation, and hence it is not expected that vessels will avoid the area on the basis of the presence of DEP North. As stated by the Applicant during ISH7 [EV-095, EV-096], larger vessels already tend to avoid this general sea area. Average draught of commercial vessels passing DEP North through the Outer Dowsing Channel is 6.1m, and 90% of commercial vessels passing DEP North have draughts of 8m or less.</p>

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		<p>additional crew are required as part of the bridge team to maintain a safe and adequate watch, thereby increasing crew costs and limiting hours of rest on vessels; vessels may ultimately determine that there is insufficient sea room to safely navigate and pass other vessels, and so re-route to avoid the area entirely.</p> <p>Vessels constrained by draught and manoeuvrability may determine that the available channel between Triton Knoll and Dowsing Shoal, which may be insufficient for their vessel and choose alternative route so as not be constrained.</p> <p>All these consequences impact adversely on transit times and economic loss to the shipping industry and resulting supply chains. Furthermore, whilst indirect, should a navigational incident (collision or allision) occur in the vicinity then there would be a direct consequence to the parties involved, and knock on indirect impact to other passing vessels and sea users which would inevitably have economic, temporal, and potentially environmental consequences.</p> <p>Accordingly, to minimise those losses, the view of the Chamber is that the primary means of mitigation is through the lesser reduction in navigable sea room for marine users to safely occupy.</p>	