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Agency

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13 June 2023

Your ref: EN010109

Dear Sir/Madam

Application by Equinor for an Order Granting Development Consent for the Sheringham and Dudgeon Extension Projects.

Planning Act 2008 – Section 89 and The Infrastructure Planning (Examination Procedure) Rules 2010

Examination Timetable – Deadline 5

Thank you for inviting the Maritime and Coastguard Agency (MCA) to provide additional information to the Secretary of State as part of its assessment of the proposed Sheringham and Dudgeon offshore windfarm extension projects. We would like to submit the following response to the Examining Authority at Deadline 5.

Examining Authority's Written Questions 3

1. Q3.19.1.1

Safety Zones: *The MCA has raised the issue of the temporary potential effect of safety zones of sea room for traffic [REP3-134]. How could safety zones on a temporary basis effect navigational safety, particularly west of DEP-North?*

MCA Response:

Where turbines are installed next to, or as close as possible to, the red line boundary, a safety zone during times of construction, major maintenance and decommissioning will create a 500m radius area (around the turbine) where third-party vessels may not enter. The safety zone would likely extend into the Outer Dowsing Channel beyond the red line boundary therefore reducing the sea room even further for passing traffic immediately to the west of the extension area.

2. Q3.19.1.2

Navigational Risk: *The Applicant, in the Navigational Safety Technical Note [REP3-031] has provided additional modelling of the northwest extent of DEP-North on collision risk for traffic within the Outer Dowsing Channel. This modelling showed a collision risk post windfarm development of 1 in 8.7 years.*

a) If you disagree with the Applicant's calculations, provide MCA calculations to show what the current collision rate would be compared to if DEP-North was built out as proposed.

MCA Response:

The applicant's Navigational Technical Note [REP3-031] assessed the change of collision frequency to increase from 1 in 8.5 years to 1 in 8.7 and it is understood from the meeting with the applicant on 22 May 2023 that it applies to the entire study area, not just the area of concern off DEP North. The MCA does not disagree with the applicant's calculations of baseline collision risk (1 in 8.5 years) as we know the area is already high risk. MCA would expect the localised increase to be higher with the introduction of DEP North. During the meeting with the applicant on 8 June 2023, the applicant confirmed their assessment of the increase in collision risk in the area immediately west of the boundary would be 23% which appeared to confirm our concerns. However, it was noted this was collision risk only. It did not include the associated collision or grounding risk, nor did it include risks associated with merging traffic to the south.

b) Provide your version of the Applicant's Figure 7.2 of the submitted Navigational Safety Technical Note [REP3-031], showing anticipated remaining sea room for ships, including safety buffers necessary.

MCA Response:

The image below (Figure 1) shows our assessment of the anticipated safe sea room for vessels west of DEP North which includes a 1NM clearance from the boundary:

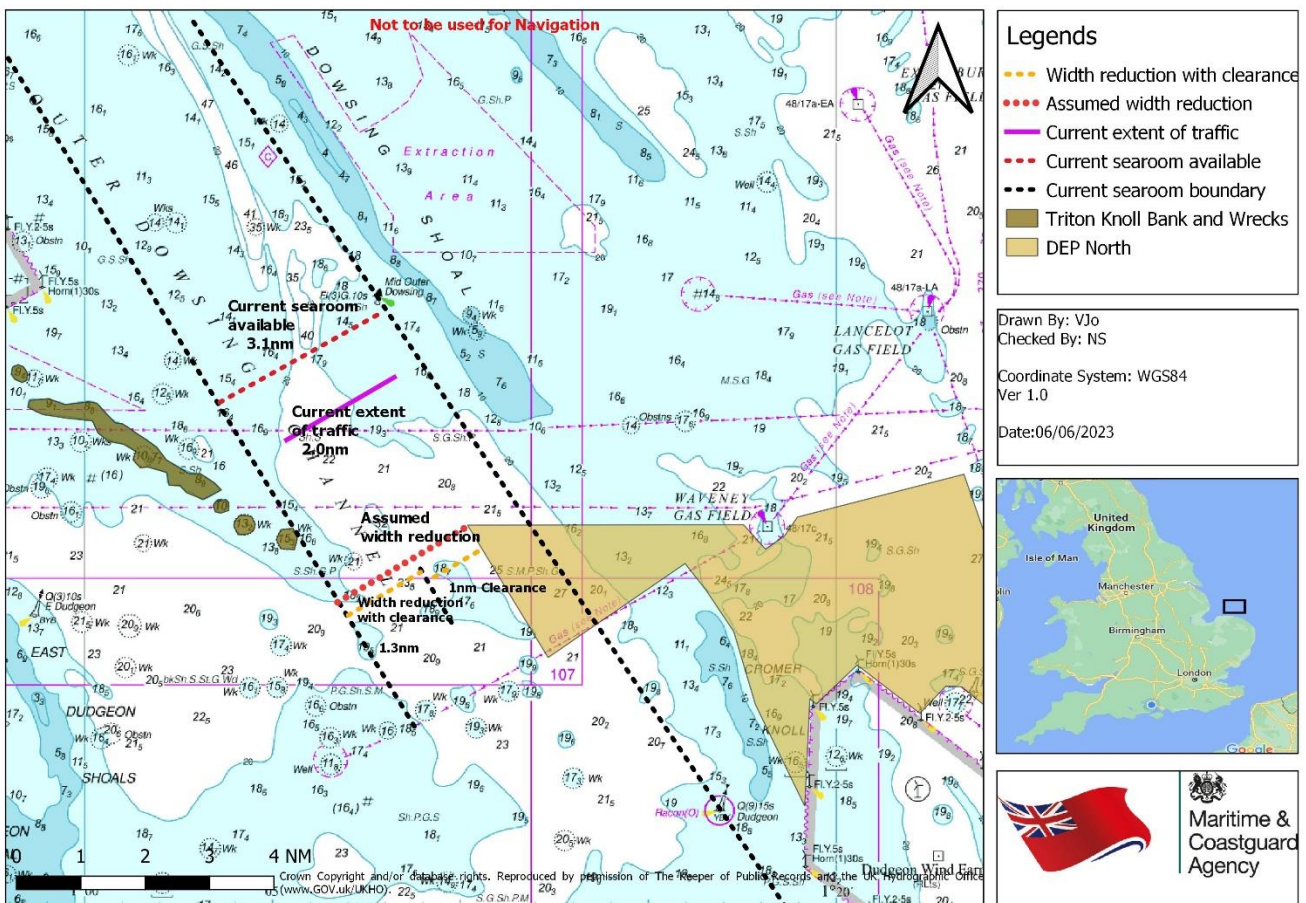


Figure 1: Safe sea room assessment

The Outer Dowsing Channel is used by various vessel types including tankers, passenger, cargo, dredgers, recreation, fishing and oil and gas support. The deeper draught vessels are

dependent on the available depths in the area and the NRA [APP-198] shows that vessels transit on the eastern side of the channel in the deeper water which will minimise the effects of sea state, particularly in adverse weather conditions. Vessels will passage plan to avoid areas of shallower water which includes the area with two wrecks in the channel that reduce depths to 14m and 14.5m and the area of 11.3m shallower water to the north. This is evidenced by Figures 14.9 and 14.10 in the NRA and Figure 7.1 in the Navigation Technical Note [REP3-031] which show where the DEP North boundary encroaches into the deep-water area where vessels navigate safely.

MCA's assessment is that the prevailing traffic will also choose to avoid the 15.3m and 13.2m wrecks (controlling depths) southeast of the Triton Knoll Bank. Therefore, the western extent of safe navigable sea space is based on this controlling depth and not the 10m contour line, as shown in Figure 7.2 of the applicant's Navigational Technical Note. This is evidenced in Figure 7.2 which shows all the transits except one, passed east of the 15.3m wreck. Our assessment is that 10m water depth does not provide sufficient depths for vessels with larger draughts in heavier or adverse weather where deeper water is required to accommodate dynamic draught, nor does it allow for the controlling depths as described above.

MCA raised concerns at Deadline 1 in our Written Representation that the area already has high collision risk which would only increase when navigating west of the DEP North array. When a safety buffer of 1NM is applied to the DEP North boundary, our assessment is that vessels will be constricted into a channel 1.3NM wide. This is a reduction of 58% from the current navigable sea room. It should be noted that this only applies to the operational phase. During the construction phase construction buoys will be deployed and the available sea room will be less than 1.3NM. An estimation of the sea room in this instance will not be possible until the positions of the construction buoys are known.

At Deadline 3 we explained that the frequency of encounter (head on and converging traffic) will increase, and the constriction of sea room will affect vessels' ability to take early and substantial action in accordance with the International Regulations for Preventing Collisions at Sea, 1972, as amended (known as the Collision Regulations or COLREG). The proposals will likely result in a departure from COLREG or alteration of course either towards the windfarm red line boundary thus increasing the risk of allision, or towards the shallows thus increasing the risk of grounding. This is particularly relevant for southbound traffic merging with the traffic transiting south of Triton Knoll windfarm, avoiding northbound traffic, avoiding active fishing vessels that may have restricted manoeuvrability and construction/maintenance vessels.

- c) *the Navigational Risk Assessment [APP-198] assumed potential increases of 10 and 20% within the commercial traffic allision and collision modelling. Provide calculations for scenarios with and without DEP-North for this Outer Dowsing Channel incorporating a 10% and 20% increase in shipping traffic.*

MCA Response:

The MCA is not resourced to provide statistical modelling figures, the necessity of which would apply in equal measure to all UK offshore renewable energy installation projects. Instead, our qualitative assessment is based on the professional and expert judgement of MCA mariners using their knowledge and understanding of seamanship and safe seafaring practices. The concerns are regarding the interpretation of the significance of the risk at current traffic levels and the statistical modelling results do not correlate with our interpretation of future traffic behaviour and good seamanship practices for collision and allision avoidance. The potential increases of traffic volume by 10% and 20% would naturally increase the risks, and our concerns, even further.

- d) *With respect to NPS EN-3, Paragraph 2.6.165, please confirm whether you would consider any increased risk of vessel collision as an unacceptable risk, based on both the Applicants and the MCA figures.*

MCA Response:

The MCA considers the increase in collision risk in the DEP North area to be unacceptable. This takes into consideration the local effect of the DEP North extension and the already high collision risk associated with the naturally confined waters of this part of the North Sea.

3. Q3.19.1.4

Mitigation against risk: *If the route past DEP-North would pose an unacceptable risk post windfarm development then is there other mitigation or measures available to address this, other than the omission of turbines close to this route to keep the sea room as existing? For example, could this route be avoided or recommended against for vessels traversing this area, using an alternative route instead?*

MCA Response:

MCA has considered IMO-adopted ship routing and it is not considered appropriate in this instance due to the narrow sea room available. The area is too confined for a Traffic Separation Scheme (TSS) and a Precautionary Area would do very little to address the issue of reduced sea room at the northern part of the extension. Head on traffic may be mitigated with a recommended route or a two-way route but it would effectively reduce the widths of both northbound and southbound routes where there would be insufficient sea room to take avoiding action in other close quarter situations such as crossing and overtaking. A cautionary note on the navigational chart has also been considered but it would only alert the mariners' attention, not reduce the risk or increase sea room. The only acceptable mitigation measure available is to reduce the red line boundary to ensure the available sea room is maintained.

If vessels are recommended to take alternative routes, for example south of Sheringham Shoal wind farm or south of Triton Knoll wind farm, this would only increase the traffic volume in these areas and therefore increase the risks for these navigationally constrained routes.

4. Q3.19.1.6

Disruption or Economic Loss: *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?*

MCA Response:

The development itself does not directly restrict or block port entrances but diversions around the proposed development of SEP and DEP may be required due to the reduced safe sea room at DEP North. The proposed infrastructure will exert further restriction to the safe area of navigable water, and as a result, some operators will likely decide to avoid the area due to the presence of the infrastructure. In this case these vessels would have to reroute either to the south of Triton Knoll wind farm or east of the Dudgeon wind farm before re-joining the passage. This will lead to increased navigational risk along these routes, increased transit times and operating costs (fuel and emissions) between ports, and therefore economic loss would be unavoidable.

5. Q3.19.1.8

Sea room between SEP and DEP: *Please confirm that it is only the loss of sea room to the west of the northern section of the DEP array that the MCA is concerned with, with no objections to the width of sea room that would remain between SEP and DEP?*

MCA Response:

MCA's concern is the loss of sea room to the west of the northern section of the DEP array that will constrict the two-way traffic into a channel with less than half of the current sea space. MCA is content with the width of sea room between SEP and DEP to the south.

6. Q3.19.1.9

Safety Zone Widths: *Does the Navigational Safety Technical Note [REP3-031, Figure 6.2] demonstrate that vessels are content with passing approximately 1 nautical mile from windfarms?*

MCA Response:

It is important to note the difference between a safety buffer distance and clearance, although the terms are used interchangeably. A safety buffer will provide the space that vessels may use in case of a collision avoidance manoeuvre, whereas clearance is the minimum distance vessels might intend to keep at all times from a wind farm boundary, in accordance with an operator's Safety Management System. The safety of the vessel and any parameters associated with passage planning will, ultimately, lie with the Master of the vessel. The applicant's Navigational Technical Note (REP3-031), Figure 6.2 shows that a majority of vessels pass at 1NM or further. The presence of other restrictions in the area such as shallow banks and wrecks (which reduce the safe navigable depth) are also considered, along with weather, sea conditions, vessel type and vessel manoeuvrability. These factors will be under consideration when passage planning and the perceived safe passing distances may be greater than 1NM. We cannot agree that 'vessels are content with passing approximately 1NM from windfarms' as shipping operators and vessel Masters may have requirements for wider passing distances (i.e on a location and vessel specific basis). However, we have used a 1NM clearance as a minimum which, from the data presented in the NRA (APP-198) and Navigational Technical Note (REP3-031), is consistent and reasonable.

7. Q3.19.1.10

Details of Obstacle/Turbine Free Areas: *If the MCA considers that the only solution to address the concern about navigational safety to the west of the proposed DEP-N windfarm site is to have a turbine/obstacle free area, can this be clearly shown on a map/chart of the area within the DEP-N boundary that this would need to relate to.*

MCA Response:

The image below (Figure 2) shows a line running through the Mid-Outer Dowsing buoy and Dudgeon buoy and MCA recommends the boundary is reduced to this line, as a minimum:

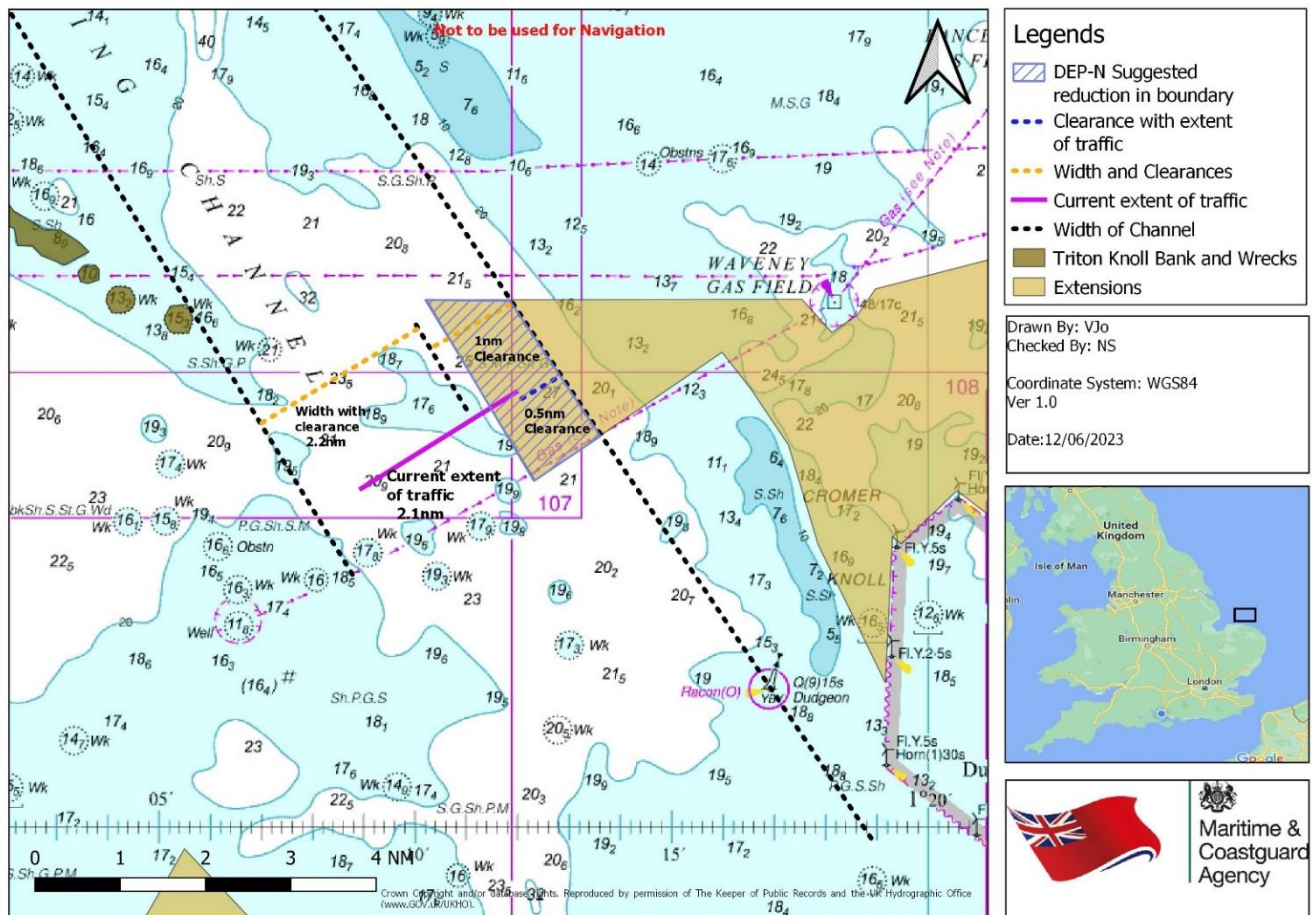


Figure 2: Recommended boundary amendment

There would still be a reduction of safe navigable sea room to the current availability when safety clearances are implemented. Figure 2 shows the current extent of traffic (magenta line), and the distance between this shipping route and the amended turbine boundary would be 0.5NM which is the minimum recommended distance in MCA guidance MGN654 Annex 2 'Wind Farm Shipping Route Template'. This reduced boundary would increase the safe navigable sea room to 2.2NM when a 1NM clearance distance is applied.

8. Q3.19.1.11

Implications of MCA position: In line with NPS EN-3, particularly Paragraph 2.6.165, what is the implication of the MCA current position for the recommendation that can be made to the SoS?

MCA Response:

The current extension at the northern section of DEP North as previously highlighted, poses an unacceptable risk to navigation due the reduction of safe and available navigable sea room in an already constricted area. As this area has pre-existing navigational constraints and is a commercially important route, any intentional introduction of hazards (turbines) that cannot be safely mitigated, will not be supported by the MCA. The implication is that MCA recommends that consent should not be granted for the current proposed boundary of the northern section of DEP North. Instead, the MCA recommends a reduction to the red line boundary to a line between the Mid-Outer Dowsing buoy and the Dudgeon buoy as per Figure 2 above.

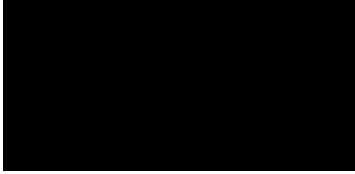
9. Q3.19.1.12

Joint Position Statement: ExA requires a joint position statement from both parties to set out what is a mutually agreeable position to alleviate any navigational risk to ALARP.

MCA Response:

The MCA and the applicant had a meeting on 8 June 2023 to discuss the concerns around the DEP North array but unfortunately a resolution was not reached. The Statement of Common Ground has been updated to confirm MCA's position on the whole project where positions of disagreement are confirmed.

Yours faithfully,



Nick Salter
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UK Technical Services Navigation