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Your ref: **20012643**
Our ref: Thanet Extension Offshore
Windfarm Project (EN010084)

28th May 2019

Dear Sir/Madam

Thanet Extension Offshore Windfarm Project (EN010084)

Deadline 6 Deadline for receipt of: The Examining Authority's third written questions and requests for information (ExQ3) and Comments on the DCO

Thank you for the opportunity to provide a written submission at Deadline 6. The MCA's remit for offshore renewable energy development is to ensure that safety of navigation is preserved, and our search and rescue capability is maintained, whilst progress is made towards government targets for renewable energy.

Examining Authority's Further Written Questions 3

[MCA's response can be seen in blue throughout this submission](#)

3.12.5. Maritime and Coastguard Agency (MCA); Trinity House (THLS) Status of the "inshore route" and route to the north of the existing Thanet Offshore Wind Farm (TOWF)

The Applicant has argued strongly that the current route between the TOWF and the Kent coast is not designated as a 'sea lane' in the meaning attributed by NPS EN-3. Further in [REP5-18] at point 43, the Applicant makes the case that being outside harbour limits, the area of routes surrounding the TOWF "is better described as an area of open sea."

In its D5 submission, MCA [REP5-063] argues that the "...area of sea to the west of the existing Thanet windfarm...is not an IMO designated routeing measure" but goes on to state "...in an operational sense, the area of sea should be treated as a recognized sea lane" and that "there is no formally designated or charted inshore route or route immediately to the north of the project". There is nothing in the Pilot



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Books to indicate that (either) is an important route to be followed when route planning...”

In the [REP4-034] PLA D4 submission Appendix 1: Anatec Review of Evidence Figures 8.3 and 8.4, this inshore route is clearly shown as one of the 3 primary approaches to the Thames Estuary prior to and after any WF construction in the estuary.

Would the IPs please clarify for the avoidance of doubt:

- a. whether MCA intends “the area of sea” in its [REP5-063] submission referred above in both instances to mean the space used for general navigation, transit by commercial vessels and pilot transfer between the southerly extent of VTS control as shown on charts and the NE Spit Racon buoy; and ...

The MCA would like to make it clear that it intends “the area of sea” to be the area to the west and south west of the proposed boundary used for navigation including pilotage and for vessels transiting to and from the ports in the Medway and Thames Estuaries.

3.12.19. Port of London Authority (PLA); Maritime and Coastguard Agency (MCA); Trinity House (THLS)

Embedded and additional risk controls in NRA and NRAA

In [REP5-012] D5 Appendix 7 para 81 the Applicant states that “the embedded and additional risk controls identified as part of the Addendum NRA do not need managing by the PLA” and at paras 82 and 90 commits to 2 lines of orientation that would ordinarily be left to later confirmation with MCA and TH.

Would the PLA, MCA and THLS comment on:

- a. whether they agree with this statement; and

MCA agrees with the statement: “*the embedded and additional risk controls identified as part of the Addendum NRA do not need managing by the PLA*”. The responsibility of managing risk controls listed in the Addendum NRA (Rev B) paras 134 & 135 should remain with the wind farm operator. However, it is not yet known what the implications will be for third parties through the use of the Shipping and Navigation Plan, and the establishment of the Shipping and Navigation Liaison Group.

- b. whether it addresses the concerns raised in earlier representations; and

MCA’s previous comments at deadline 5 remain: “Optimise TEOW line of orientation and symmetry’ is a duplicate of ‘Layout plan to be submitted to MCA for approval prior to construction’ in Paragraph 133. Part of this approval process is to ensure the turbine layout design allows for vessels and SAR helicopters to safely transit through the wind farm, therefore it aims to optimise lines of orientation and symmetry”.

- c. whether there are other considerations of involvement by IPs in maintaining the effectiveness of such embedded or additional risk controls that should be considered by the ExA; and

The MCA has no other considerations to offer at this time.

- d. whether the commitment made by the Applicant to 2 lines of orientation (thereby proposed as embedded rather than additional mitigation) changes the IPs' view on the "double-counting" of embedded and additional mitigation?

The MCA welcomes the applicant's commitment to at least two lines of orientation. MCA still contends that this is a duplicate of the embedded risk control "Layout Plan to be submitted to MCA for approval prior to construction". MCA and TH approval of a layout plan is a standard DML condition and the discussion on layout with MCA and TH will take place post-consent, if granted. MGN543 Annex 2 section 2.d. states: "*Developers should plan for at least two lines of orientation unless they can clearly demonstrate that fewer is acceptable.*" Any layout plan submitted to MCA and Trinity House should plan for two lines of orientation and this would therefore be considered as optimised under this paragraph.

3.12.20 Port of London Authority (PLA); Maritime and Coastguard Agency (MCA); Trinity House (THLS); POTL/LGPL and PLA and London Pilot Council (LPC); Thanet Fisherman's Association (TFA); UK Chamber of Shipping (UkCoS); Port of Sheerness Ltd (PSL)

Textual changes to the NRAA made at deadline 5

Would the IPs comment on the recent textual changes in regard to traffic projections made at Deadline 5 to the NRAA (rev B) [REP5-039] insofar as relevant to this DCO application:

- a. Para 121: "...slightly downward trend in chargeable ship arrivals over recent years..." albeit "...PLA figures do not include other estuary ports...";
- b. Para 122: "...precautionary 10% uplift in hazard likelihood has been applied...in line with other OWF NRA assessments...and is reflected in the Tilbury 2 NRA...";
- c. Para 123: "...It is important to note ...[that the MMO] future analysis for the region assumed that overall freight tonnage would increase, by between 1% and 2% per [sic] the trend for larger vessels would continue, and that the Thanet Extension OWF would be consented."
- d. Para 124: downward or static trend for recreational and fishing activity; and
- e. Para 125: additional WSV (traffic) associated with the TEOW; "WSV engaged on other projects within the Thames Estuary and transiting through the study area are anticipated to remain largely the same...based on consultation."

In matters of commercial operations MCA defers to the local ports to help inform decisions regarding the safety of navigation at a local level. The MCA recognises that the sources of data the applicant has used may be appropriate on a national scale, however all offshore renewable energy projects are assessed on a case by case basis and the 10% figure is challenged by the local ports as an unrealistic figure.

3.12.21 Port of London Authority (PLA); Maritime and Coastguard Agency (MCA); Trinity House (THLS); POTL/LGPL and PLA and London Pilot Council (LPC); Thanet Fisherman’s Association (TFA); UK Chamber of Shipping (UkCoS); Port of Sheerness Ltd (PSL)

Additions to the NRAA made at deadline 5

Would the IPs comment on the recent textual changes in regard to risk assessment made at Deadline 5 to the NRAA (rev B) [REP5-039]:

- a. Para 135: Additional Risk Control: Enhanced promulgation of information (redrafted); Shipping and Navigation Liaison Group Terms of reference (redrafted); Post-consent Monitoring (redrafted); Enhanced optimisation of TEOW line of orientation etc (redrafted); Aids to Navigation etc (redrafted);

In the applicant’s ISH8 written response (Appendix 7 to Deadline 5 Submission: Response to ExA Action Points arising from Issue Specific Hearing 8 – Shipping and Navigation, section 82) it explains that Information Dissemination is an embedded risk control measure however this is not listed in the Addendum NRA (Rev B) para 134.

MCA contends that the promulgation of information, as stated in the NRA Addendum Rev A section 134, should be an embedded risk mitigation measure since the charting of hazards, issuing Notices to Mariners and promulgating information to fishing and recreational users are standard practices in the industry for notifying mariners and ensuring they have up to date information so they can safely plan and conduct their passage. Therefore, MCA’s opinion is that these need to be separated from the risk control in para 135 into its own embedded risk control in para 134.

It is noted that the risk control measure has been amended to “*Enhanced Optimisation of TEOW line of orientation and symmetry*”. Although it is not understood how, by definition, an optimised layout can be enhanced, MCA does not agree that early commitment to two lines of orientation can be considered as an additional risk control measure for the operational phase of the wind farm. Nor do we agree that commitment to two lines of orientation is *enhancing* optimisation of the layout, as explained above in our response to 3.12.19 (d). The intention of at least two lines of orientation applies to wind farms with multiple rows and columns to allow vessels and SAR helicopters to safely navigate through the wind farm. It is likely the locations of the Thanet Extension turbines will surround the current wind farm in one or two columns and the MCA will also be concerned that the rows and columns align with the current turbines at Thanet OWF (in accordance with MGN543 Annex 2 section 2.e.). It is noted that the “*Enhanced Optimisation of TEOW line of orientation and symmetry*” risk control measure in the Addendum NRA (Rev B) does not include this in the explanation.

- b. Paras 141 to 144 and Table 19: New insertion in rev B;

It is not understood what “*Enhanced Promulgation of Information*” means since Promulgation of Information is not included as an embedded measure in para 134. It is noted that this is separate to “*Shipping and Navigation Liaison Group*”, therefore the implication is that there are two levels of information that can be promulgated to mariners for their safety. If there is enhanced information that could be disseminated to mariners, in addition to the common practices of issuing Notices to Mariners, charting hazards, notifying fishing organisations, this is counter-productive for ensuring safety of navigation.

MCA does not agree that “Enhanced Promulgation of Information” and “Enhanced Optimisation of TEOW line of orientation and symmetry” are appropriate additional risk controls, rather they are more suited as embedded risk controls. As such we are unable to confirm agreement of likelihood reduction scores.

- c. Para 145: “...the assessment of cost benefit in the original NRA remains valid.”

Although there is not a specific section in the original NRA that addresses cost-benefit analysis, if the NRA Addendum (Rev B) is referring to the risk controls that are identified but not recommended in para 138, MCA agrees that they are disproportionate.

- d. Para 146: Summary results of the hazard workshop (New Annex C to Deadline 5 submission) “...ID’s 4-18 [sic]...were updated based on IP comments...”;

It is not clear what amendments were made following IP comments.

- e. Ranked Hazard list (now Table 20) changed to omit columns for individual baseline and inherent risk scoring with colour grading; the highest inherent risk score now being 4.80 (previously 4.34); residual risk scores added to rev B.

It is assumed the individual baseline and inherent risk scoring columns have been omitted to make it easier for the reader.

- f. Para 147: hazards with baseline risk ALARP-rated now seven in number (previously four in number);

For baseline risk i.e. the current status quo, it is reasonable to expect the risks are being managed to acceptable levels. The scoring of the risks was discussed but not agreed by IPs, and those not completed during the workshop were scored by the applicant.

- g. Paras 152-154: New paras on hazard likelihood including a return rate for all commercial vessel collisions of 1 in 10 years to reflect stakeholder concerns;

These paragraphs show that, in this instance, the applicant has taken the qualitative data (expert opinion of IPs) into account in addition to quantitative data.

- h. Para 157: hazards with inherent risk ALARP-rated now eight in number (previously four in number);

According to the risk matrix in Figure 25, these scores fall into the category of ‘Tolerable with controls’, not automatically ALARP. It is understood the risk scores have been calculated using the consultants risk scoring software however it is not clear on what these calculations are based.

- i. Paras 158-160: New text on residual risk assessed;

MCA does not agree with the list of additional control measures and is unable to agree these risk scores.

- j. Paras 169-173: New Text on Risk Control Validation;

It was understood the bridge simulation study would have fed into the risk assessment, not as part of a validation exercise.

- k. Para 174: Added conclusions text on hazard consequence scores provided by PLA/ESL at D4C "...which has been used to update some hazard consequence scores."

This is accepted.

- l. Para 178: Added text on feedback from DPWLG on risk consequence scores; and

MCA is content with the added text.

- m. Para 184: New text varying the Recommendations made in the revA NRA Addendum.

MCA is content with this paragraph.

3.12.40 Maritime and Coastguard Agency (MCA); Trinity House (THLS)

Final recommendation from competent maritime authorities

MCA's D5 submission [REP5-063] recommends that in order to mitigate risks to as low as reasonably practicable in the ALARP range, the Applicant should consider "increasing the sea room between the NE Spit buoy and the SEZ boundary to a distance that is acceptable for continued safe pilot transfer operations".

The ExA wishes to note that there is no longer any time remaining in the Examination timetable for further material change to the application nor for additional mitigation involving alteration of pilot transfer locations (which may need further simulation to demonstrate feasibility of safe navigation and pilot transfer operations in limit-state conditions and in any case could not be recommended to the Secretary of State as risk mitigation without additional Navigation Risk Assessment).

Therefore, the ExA seeks a final recommendation from the MCA and THLS on the overall acceptability of the NRA, the NRAA and the application (subject to the SEZ and other proposed risk controls as they currently stand) from the perspective of shipping and navigation safety in all MetOcean Conditions in which PLA pilot operations are able to operate at present. On the basis of the project as proposed, including the NRA, NRAA and other submitted evidence, what is the final recommendation of the MCA and THLS to the ExA/SoS in respect of the acceptability of the proposed development in navigation safety terms?

It is MCA's view that, had time allowed, our preference would have been for the applicant to increase the sea room for pilot transfer operations, as per D5 submission, to the satisfaction of IPs. We are grateful to the applicant for the hard work undertaken in order to try to address the IPs concerns, to satisfy MCA requirements for stakeholder approval at a local level. The introduction of the SEZ has no doubt improved the amount of available sea room, and reduced the constriction placed on vessels operating in the western extent. However, the MCA remains concerned regarding the following:

- 1) the available sea room for Pilot operations to be carried out and the failure to obtain IP agreement regarding the risks to pilotage. This therefore has implications on our considerations for the safety of navigation;
- 2) The MCA does not agree with the list of embedded and additional risk control measures as detailed above and therefore are unable to accept the final risk scores as ALARP;
- 3) It is yet to be confirmed what subsea infrastructure, cables, jack up and other construction equipment can be utilised in the SEZ, and how these risks will be mitigated. We also note safety zones could be enforced in the SEZ; and
- 4) We remain concerned about the consequence of an incident in this highly complex area for navigation.

Based on the above concerns the MCA is unable to agree that the proposed project is acceptable with regards to the safety of navigation.

Examining Authority commentary on the draft DCO

The MCA has provided comments direct to the applicant to address in the draft DCO and we are awaiting their response at deadline 6.

30. Schedule 1 Part 3 Possible New Requirement Navigation safety and shipping impact mitigation plan

Port of Tilbury London Ltd. and London Gateway Port Ltd. (the Ports) [REP5A-001] highlight that whilst Sch 11 Condition 13 (Generation Assets DML) provides an approval to the MMO for a construction programme and monitoring plan to include "details of the works to be undertaken within the structures exclusion zone; and [...] the proposed timetable for undertaking of such works within the structures exclusion zone..." it would be desirable for this or an equivalent plan to be approved by the Maritime and Coastguard Agency. The Ports suggest that for this to be secured, a new Requirement should be provided, translating the effect of the plan approval requirement in Sch 11 Condition 13 into the body of the DCO for approval by the Maritime and Coastguard Agency.

By Deadline 6:

- a) The Maritime and Coastguard Agency is requested to engage with Trinity House to consider whether such a provision would address their concerns and; if so

This provision is not sufficient to address our concerns listed above. We would expect a construction programme and monitoring plan to include "details of the works to be undertaken within the structures exclusion zone, anyway;

b) Whether it should secure consultation or approval by either one or the other body (which one) and

The construction programme and monitoring plan should be conditioned, and we would expect the MMO to consult the MCA prior to the approval of this document.

c) How such a provision might be drafted.

DML conditions are approved by the MMO in consultation with the relevant consultee(s). The MMO consults the MCA on the construction and monitoring plan before signing off the licence condition and we would expect the MMO to consult the MCA for such a plan for the SEZ.

The remaining DCO actions will be addressed as requested at deadline 7, with input from DfT legal.

Yours faithfully,

Helen Croxson
OREI Advisor
Maritime and Coastguard Agency