KEEPING BRITAIN TRADING

IMMINGHAM EASTERN RO-RO TERMINAL

Response to Beckett Rankine Design

Document 10.2.91

APFP Regulations 2009 – Regulation 5(2)(q)

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By Email Only

Matt Dearnley

Date: 05-01-2024
Your Ref: APT
For the Attention of Associated Petroleum Terminals (Immingham) Limited

Dear Matt,

IMMINGHAM EASTERN RO-RO TERMINAL DEVELOPMENT

I write with reference to Associated British Ports' ("**ABP**") application for the proposed Immingham Eastern Ro-Ro Terminal Development ("**IERRT**") and to the ongoing DCO Examination, in response to your letters on the 4th and 20th December 2023 and more specifically the memo entitled "Design Basis Review" prepared by Beckett Rankine (2333-BRL-01-XX-MM-C-0001 Rev P01).

ABP RESPONSES TO SECTION 1.2 BECKETT RANKINE COMMENTS

1.2.1 – The impact speed of vessel at 1.8 knots for the future vessel has been derived by back calculation from the largest energy generated by the existing IERRT vessels. As you are aware, thee future vessel is not a vessel currently in existence nor construction. It is simply an envelope of parameters to enable us to future proof the design of the IERRT infrastructure with respect to the draft, LOA and beam. The Applied Controls such as possible towage and environmental limitations will be tailored to suit actual future vessel parameters at the appropriate time, as would be adopted on any marine infrastructure over the course of a 50 year design life.

1.2.2 – Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01.

1.2.3 – The design has considered that the impact energy will be absorbed within a 2.5m displacement of the structure. The additional 2.5m is contingency for future design development and there is no need nor benefit derived from placing the infrastructure closer to the finger pier. This is a Design Basis document and it presents a minimum criteria for the future phases of design to achieve. This distance was selected with consideration of:

- The layout and the orientation of the existing and proposed structures.
- Space for construction and future maintenance.
- That a vessel on IOT Berths 6 or 8 is not expected to extend beyond the concrete deck of the Finger Pier, indicatively 18m from the nearest corner of the proposed dolphins; and
- Preliminary concept development.

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1.2.4 – The design basis document provides the basis of design for assessing the existing IERRT infrastructure with respect to vessel impact. Clearly, in the unlikely event of an allision, the IERRT infrastructure would need to be appropriately assessed – as would be – and is - the case for any such occurrence. The pontoons and restraint dolphins are assessed for their ability to withstand a vessel impact scenario in line with the basis of design provided. The reference to the performance specification serves to document that the basis of design for vessel impact is aligned to the performance specification for the pontoon and restraint dolphin infrastructure.

1.2.5 –The exact requirements and position of aids to navigation on the structure in the detailed design stage will be agreed in conjunction with the Harbour Master Humber and Trinity House as appropriate – and as is already provided in the draft DCO.

1.2.6 – The impact protection is a passive structure with no operational activities. There are therefore no regular access requirements. Access for inspection and maintenance activities will be undertaken by small craft.

1.3.1 – This is a Design Basis document and it presents a minimum criteria for the future phases of design to achieve. This is an outcome of the design in line with the basis of design. Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01 enclosed alongside this letter for further information.

1.3.2 – As above, this is a Design Basis document and it presents a minimum criteria for the future phases of design to achieve. Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01. The ground conditions have been derived from the geotechnical investigation undertaken for the IERRT scheme and the nearest relevant boreholes complimented by the historic boreholes for the IOT infrastructure.

1.3.3 - Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01.

1.3.4 - This is a Design Basis document and it presents a minimum criteria for the future phases of design to achieve. The selection of a fender for the VIPS detailed design will be determined by the Design & Build Contractor. Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01.

1.3.5 – Corrosion protection measures will include appropriate steelwork coatings and cathodic protection for the exposure conditions and design life of the structure.

1.3.6 – No specific requirements are set out in this Design Basis document. Please clarify what maintenance requirements are of interest with respect to the validity of the Applicants proposed impact protection measure.

1.3.7 – Environmental loads are benign in comparison to vessel impact. By inspection the structures will be sufficient to withstand environmental loads given the impact force being catered for to arrest

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an errant vessel. The requirements to be imposed on a future Design & Build Contractor will be consistent with those applicable to the rest of the project.

1.3.8 – Please refer to Vessel Impact Protection Structure – Concept Design 4021009-JAC-ZZ-01-TN-C-00003 P01.

ABP RESPONSES TO OTHER MATTERS RAISED IN LETTER OF 20 DECEMBER 2023

Protective Provisions
ABP was referring to the review of the draft protective provisions in the light of the overall ongoing process without prejudice discussions with IOT Operators.

November 15/17 Simulation
Email correspondence was sent by Sophie Young on the 4 December 2023. This email contains 3 attachments - the VIPS design basis (originally provided on 15 November 2023), a letter from HRW regarding Enhanced Operational controls (including outcomes and simulation run summary), and an HRW study considering revised flows and impact protection. The latter two attachments provided a response to your request and can also be found in the examination library [**AS-071**].

December 13/14 Simulations
The reports for these simulations are currently being finalised by our consultants and will be available no later than Deadline 8 (8/1/24).

Tidal modelling and Flow Assessment
HR Wallingford have produced the report titled "3D modelling of the revised layout" [**REP7-035**] which was provided to the IOT Operators on 8 December 2023 ahead of the December simulations. This report was presented to IOT and other stakeholders at the navigational simulations on the 13th and 14th December by the report author. Following feedback during this presentation, the report has been updated to address comments raised in this session, specifically to provide higher resolution assessment of the area between the IERRT pontoons and the IOT finger pier. The second issue of this report is enclosed alongside this response.

Maintenance dredging
During the operation of the IERRT, ongoing monitoring of the advertised depths will be undertaken. It is anticipated that the area beneath the pontoons will be subject to natural scour given the flow regime. However, ABP holds a Marine Licence issued by the Marine Management Organisation and should maintenance dredging be required, this will be undertaken in the same way as currently occurs elsewhere at the Port of Immingham.

Kind Regards

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[redacted]

Josh Bush

ABP Immingham Eastern Ro-Ro Terminal Project Development Manager

cc' Brian Greenwood (Clyde & Co)