



Offshore Petroleum Regulator
for Environment & Decommissioning

ES/2022/001

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Dear ██████████

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

NOTICE UNDER REGULATION 12(1)

ROSEBANK FIELD DEVELOPMENT

The Offshore Petroleum Regulator for Environment and Decommissioning (“OPRED”) acting on behalf of the Secretary of State for Business, Energy and Industrial Strategy (“the Secretary of State”) is currently considering the Environmental Statement (“ES”) and the representations received from the public consultation process in relation to the above project. Equinor UK Limited is hereby required to provide further information in relation to the following:

1. Section 2.5.5 (pages 51 and 52) – This section lists the ten export pipeline alternative routes and identifies that Option 2 has been selected, stating that tying into West of Shetland Pipeline System (WOSPS) was selected for specified commercial and technical reasons.
 - i) While it is recognised that all WOSPS options to the point of tie-in to WOSPS would have an identical seabed impact and the strengths and weaknesses of the selected WOSPS route have been identified (also noting that routes via Cambo have been screened out due to uncertainties associated with that project), there is no discussion of the positives and negatives related to options 1 and 8 i.e., non-WOSPS options. Please provide further information in this regard to support the conclusion that Option 2 presents the optimal pipeline solution.
 - ii) It is noted that Magnus may be subject to cessation of production in the early 2030’s and that a bypass may be required to allow export of gas to continue. No further details of this potential bypass or crossover to the SIRGE pipeline are discussed. With a view to ensuring continued zero routine flaring/venting of produced gas, please clarify how it will be

ensured that a gas export route remains available for the proposed development.

2. Section 3.5.8 (page 88) – This section states that the infield flowlines, umbilicals and gas export line will cross over 19 existing cables on the seabed, but Table 3-17 refers to 24 infield cable crossings and 3 cable crossings at the Clair export line. Please clarify the total number of crossings and confirm the worst case associated deposits and impact area.
3. Section 3.8.5 and Table 3-17 (pages 104, 105 and 106) – This section states: *'The total pre-lay and post-lay rock estimation (Table 3-17) required for pipeline installation will be reviewed and updated further to data from the pipeline survey.'* Regarding the quantity of rock protection/stabilisation identified in this table, please clarify the level of contingency applied and explain the rationale for such i.e., demonstrate how worst case has been assessed.
4. Section 4.3.2.2.3 (pages 158 and 159) – The presence of the protected feature 'coral gardens' has been discounted in the ES based on a definition by OSPAR (2021). Equinor are advised that the working definition of coral gardens in the UK is defined using the density of non-reef forming coral species (Henry, L.A. & Roberts, J.M. 2014. Developing an interim technical definition for Coral Gardens specific for UK waters and its subsequent application to verify suspected records. JNCC Report No. 507) as follows:
 1. Coral garden taxa need to be dominant. This can be determined by comparing the mean density of coral garden taxa (not including reef forming corals) to the density of other habitat forming species;
 2. Coral garden taxa need to characterise the community;
 3. At least one, non-reef forming coral taxon needs to be at least 'Frequent' on the SACFOR scale

With the above in mind, please also review the conclusion as to the presence or absence of coral gardens in the context of the UK coral garden definition and confirm the conclusion.

5. Section 4.3.6.1 (page 182) – Equinor are advised that the periods of concern for drilling activities, based on the Seabird Oil Sensitivity Index (SOSI), have been revised. While previous recommendations were considering periods of concern when there were two or more sequential months of very high seabird vulnerability (OVI), the updated periods of concern for drilling are defined as any single month that presents, in a given licence block, either a very high or extremely high seabird Median Sensitivity (SOSI).

The period of concern is a tool used to ensure accidental releases of oil on seabirds are considered during months of extremely or very high seabird sensitivity (as indicated by the SOSI) in a particular area. Please therefore include adequate justification to ensure these implications are fully considered and mitigation measures are identified to minimise potential adverse effects. The 'period of concern' does not prevent any activities during these months, however we would expect additional text to cover the extremely/very high

sensitivity months for seabirds. The periods of concern for drilling are: within Block 204/5 during the month of September, within Block 204/10 during the month of September, within Block 205/3 during the month of October, and within Block 205/4 during the month of October, when the SOSI is recorded as extremely high or very high.

6. Sections 4.5.8 and 11.4.8 (pages 204 and 341) – These sections state that the coastal waters of Shetland and Orkney are important for aquaculture, and the west coast of Shetland in particular supports numerous active finfish and shellfish sites although no details of these are provided. Please provide a map to provide context to the later assessment in 11.4.8 where specific sites are identified.
7. Section 6.3.1 (page 222) – This section references gas export pipeline freespans and confirms that rock will be used to address these. Please clarify whether the worst-case rock requirements identified in Table 3-17 includes rock required for freespan remediation.
8. Section 7.5.2.2 and Table 7-2 (pages 248 and 245) – There is no reference in the ES to the potential for well re-spud or mechanical sidetrack of wells, which OPRED understands will be included in the WONS consent application. If these activities may be undertaken, they are likely to increase the quantity of drilling mud and cuttings discharged to sea. With this in mind, please clarify whether the drilling discharge modelling presented in the ES represents the worst-case scenario, updating where necessary and including a justification to support Equinor's position.
9. Section 7.6.3.1 (page 260) – This section refers to a peak produced water production rate of 12,360 Sm³/day in later production. However, this does not appear to align with the production information presented in Table 3-3. Please clarify.
10. Section 8.3.1.1 (page 268) – This section states '*During the operation of the gas export pipeline, at depths greater than 800 m, the pipeline will be trenched and backfilled where possible to minimise any loss of fishing grounds.*'. Presumably this should refer to 'depths less than 800m' but please clarify.
11. Section 8.3.1.2 (page 269) – This section states that the muddy sediments along the gas export pipeline predominantly located towards the infield area may consist of clay sediments but a note is included: '*HOLD - awaiting survey data along the pipeline to be analysed*'. Please confirm if this analysis has taken place and if so, how the results affect the assessment presented in the ES, particularly with regard to the worst-case rock deposit between KP0 and KP22 (Table 6-4) i.e., >800m water depth. Where the analysis has not yet been completed, please clarify how the worst-case rock deposit for this section has been determined.
12. Section 9.3.6 (page 285) – This section states that during unplanned shutdowns gas import will be used to minimise diesel usage. However, section 3.7.8.1 states that there is a contingency for use of import gas if the field becomes gas

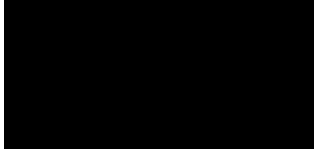
deficient in terms of the ability to power the FPSO. Please clarify whether gas import will be available for use to minimise diesel usage at any stage of field life or only when gas deficient.

13. Tables 9-3 to 9-6 (pages 282 to 286) – The quantification of emissions over the life of the field has increased overall compared with the near final draft ES, in particular Table 9-5 which details emissions associated with production. Please clarify the reason(s) for these changes.
14. Table 9-5 (page 285) – This table does not quantify any emissions from venting although in section 3.7.8.4 and Table 9-1 it is identified that venting will be required for safe isolation of plant and is a source of emissions. Please provide relevant entries for venting emissions in Table 9-5 to ensure that the emissions assessment relates to all sources of emissions for which consent may be sought.
15. Section 9.5.1 (page 295) – This section states Equinor has ensured that the Rosebank field is developed in line with the North Sea Transition Deal (NSTD), UK Net Zero targets and Equinor Net Zero ambitions. However, while the ES sets the Rosebank development in the context of forthcoming carbon budgets it has not been demonstrated how the proposed development helps meet the NSTD policies and commitments or Equinor Net Zero ambitions. Section 9.5.3 also notes the importance of proceeding on a trajectory to Net Zero by 2050, which for the offshore oil and gas sector is embodied in the NSTD. Please clarify how the proposed development will support the various NSTD policies and commitments, identifying what fraction of UKCS emissions the proposed development will contribute in those years that have NSTD commitments, and how the proposed development aligns with Equinor Net Zero ambitions.
16. Sections 11.4.2 and 11.4.3 (page 335) – These sections state that impacts from an accidental release of oil on benthic habitats and fish are not expected in deeper waters, with reference made to the water depth where elevated oil concentrations would likely occur. However, no evidence is provided to support this position e.g., vertical trajectory (profile) oil spill modelling. Please review and update with modelling to support this position.
17. Section 11 – There is no discussion of the potential to utilise a capping stack or drill a relief well in the unlikely event of a well blow out, although it is noted that the oil release modelling does confirm that the model was run to align with the estimated time taken to drill a relief well. Please provide further details in relation to oil spill response.

Your response will be reviewed, and consideration given as to whether the information provided ought to be made public because the information is directly relevant to reaching a conclusion on whether the project is likely to have a significant effect on the environment. If so, OPRED will notify Equinor UK Limited under Regulation 12(3), and Equinor UK Limited will have to take further steps to publish information and make provision for further public consultation under Regulations 12(5) to 12(9).

OPRED looks forward to receiving your response so that we can progress our consideration of the ES.

Yours sincerely



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Environmental Manager

The Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of the Secretary of State for Business, Energy and Industrial
Strategy