



Offshore Petroleum Regulator
for Environment & Decommissioning

D/4260/2021

Shell U.K. Limited
[REDACTED]

Shell U.K. Limited
1 Altens Farm Road
Nigg
Aberdeen
AB12 3FY

Department for Business, Energy
& Industrial Strategy

Offshore Petroleum Regulator for
Environment & Decommissioning
AB1 Building
Wing C
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]
Fa [REDACTED]

www.beis.gov.uk
EMT@beis.gov.uk

13 May 2022

Dear [REDACTED]

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

NOTICE UNDER REGULATION 12(1)

Jackdaw 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. Shell U.K. Limited is hereby required to provide further information in relation to the following:

1. There are a number of references in the ES to “phasing” or “rephasing” of the Shearwater drilling programme to reduce emission levels for the period Jackdaw is producing and / or to allow a higher proportion of CO₂ to be exported (see, for example, sections 1.1, 1.8 and 7.6.2 of the ES). Can the developer please clarify how the proposed phasing of the Shearwater drilling programme gives rise to the projected emissions levels assessed in the ES?
2. The temporary impact area associated with the mattresses (umbilical) in Table 6-1 could not be emulated. The temporary disturbance area shown for 270 mattresses is less than that shown for mattresses associated with the pipeline where 200 mattresses are proposed. Please clarify?
3. Section 7.3.3. of the ES provides an assessment of cold vented methane quantities from the Jackdaw Wellhead Platform (WHP). Based on the estimates presented in the ES and outlined below, can the developer clarify that the methane quantities are an accurate reflection of the proposed activity, and explain the basis for these estimates.

- Section 7.3.3 states that the total hydrocarbon venting during the sequential commissioning of the 4 wells is estimated at up to a maximum of 430 te. This is based on the assumption that during the first well start up, gas flow will be vented (340 te maximum) until the wellhead warms up to a sufficient temperature to route the fluids to the WHP topsides. Subsequent wells will vent an estimated 30 te.
 - Section 7.3.4 indicates that vented emissions during normal cold start-up will be 46 te/yr based on the expected number of shutdowns and start-ups.
4. Amended figures in Table 7-5 outlining the total emissions associated with the production at the WHP in relation to power generation and venting at the WHP indicate that SO₂ and N₂O emissions have changed by an order of magnitude from the ES submitted in May 2021. Please confirm that the figures presented in the table are correct.
 5. Table 7-7 illustrates the overall reduction in amine vent CO₂ emissions for both the Shearwater native and Jackdaw incremental contributions based on a 4.2 mol% CO₂ content as the base case in the Jackdaw feed gas. Footnote 2 in the table then goes on to state that the Jackdaw incremental is based on 1.85 mol % CO₂ export. Could the developer further explain the selection of this concentration used for export?

OPRED wishes to inform Shell U.K. Limited that it will publish a redacted version of this notice at the following GOV.UK webpage:

<https://www.gov.uk/government/publications/jackdaw-field-development>

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 Shell U.K. Limited under Regulation 12(3), and Shell U.K. 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

.....



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