



Department for  
Energy Security  
& Net Zero

**ES/2022/005**

**Ping Petroleum UK PLC**

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4 August 2023

Dear [REDACTED]

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

**NOTICE UNDER REGULATION 12(1)**

**Avalon Field Development**

The Offshore Petroleum Regulator for Environment and Decommissioning (“OPRED”) acting on behalf of the Secretary of State for Energy Security and Net Zero (“the Secretary of State”) is currently considering the Environmental Statement (“ES”) in relation to the above project. Ping Petroleum UK PLC (Ping Petroleum) is hereby required to provide further information in relation to the following:

1. With the uncertainties surrounding the project it is difficult to assess the impact. Please summarise the project as accurately as possible including updates since the ES was submitted and provide up to date impact assessments using this specific information.
2. Please clarify how power will be generated on the FPSO. If the import/export line does not go ahead or the OWT does not go ahead how will this impact atmospheric emissions?
3. Atmospheric emissions - please provide anticipated annual emissions from the project for the life of the field.
4. Please provide an analysis of carbon intensity of the proposed production at Avalon and a comparison between the different options for the project and other oil and gas projects in the UKCS.
5. 'B1 - Nature of Project' - this section states the Avalon Field is expected to produce hydrocarbons for 10 years while text on page v-xiii states the Avalon Field Development is expected to produce hydrocarbons for 15 years. Please clarify.
6. “The effect of habitat alterations will be localised, limited to the immediate footprint of the protection materials, and permanent, lasting for the duration of the proposed development, but will be reversible on decommissioning and removal of the matting, grout bags and rock.”

It is unlikely that either the rock or will be able to be recovered and not all mattresses will be able to be recovered. Please clarify whether Ping anticipate recovering these protection materials and if so what proportion will be recovered.

7. Please provide the following information on the rock dump if available:
  - a. Location of dump sites;
  - b. Size / grade of rock to be used;
  - c. Tonnage / volume to be used;
  - d. Contingency tonnage / volume to be used;
  - e. Method of delivery to the seabed;
  - f. Footprint of rock and other protective materials;
  - g. Assessment of the impact;
  - h. Expected fate of deposit after end of production, i.e. will it be left in situ or recovered.
8. x-xiii - 'The quantities of CO<sub>2</sub> equivalents, generated during the lifetime of the project also make up a small quantity of the UK's Carbon Budget (less than 0.0064 %) and the North Sea Transition Deal (NSTD) targets (less than 0.218 %)' - please clarify what specific targets these are percentages of?
9. 2.3.9 - 'Installation of a potential gas import/export line would reduce, or eliminate, the need for routine flaring at the Avalon field' - please clarify the situation with regards to flaring on the FPSO. What volumes will be flared annually on the FPSO? Without the import/export line or gas reinjection will there be routine flaring on the FPSO?
10. 2.3.9 - please clarify what Ping's expectations are for Produced gas management. This section suggests that all produced gas will be used for power generation however it also states that excess gas will be exported if the import/export pipeline goes ahead.
11. 2.3.12 - what other options were considered for pipeline installation and why were they decided against?
12. OWT - What is the expected downtime of the proposed turbine / turbines. How will power be generated during this time?
13. Table 3.4 - please check the cuttings volumes within this table. It appears errors have been made. Please check and clarify.
14. 4.1 - please provide a diagram showing the location and extent of the project and the survey points overlapped along with any known sensitivities.
15. 'An Environmental baseline survey covering the footprint of the Avalon Field Development, including the proposed pipeline route will be undertaken before any operations drilling or pipeline installation operations commence.' - when will this be undertaken? Please summarise the results if this has been completed.
16. 4.1 - Biodiversity is stated to be low in this section, however later in the section it is stated that the Avalon field is characterised by diverse and dense infaunal community. Please clarify. Also in this section it states 'there was no increase in epifaunal density' - please clarify what the epifaunal density is being compared against.
17. Please, provide an estimation of the area covered by the discharged cuttings and where thresholds for impacts on particle size change, oxygen depletion and smothering extend to, particularly in light of the presence of juvenile ocean quahog individuals in the area. It is advised that drill cuttings discharge modelling is undertaken.
18. 7.3 - 'It is expected that cuttings material deposited at the well may overlap with cuttings from the previously drilled exploration and appraisal wells. However, it is unlikely that there will be cumulative effects between the Avalon Field Development and the cuttings from the previously drilled wells due to the distance between fields

which is greater than the likely extent of drill cuttings spread.’ - these two sentences appear to contradict each other. Please clarify.

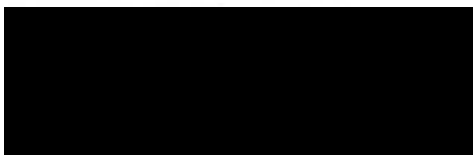
19. 8.1.1.1 - is there the potential for a jackup to require anchors and chains? Please clarify and assess the seabed impact if this is a possibility.
20. 8.1.7 - The total seabed footprint of the operations is estimated to be 0.657803 km<sup>2</sup>. However, it is noted that the seabed footprint of the expected drill cuttings pile has not been stated within the ES. Please provide an estimate of seabed footprint for the drill cuttings and an updated total seabed footprint including this figure.
21. 8.2.1 - ‘The widespread distribution of ocean quahog juveniles within and around the Avalon Field Development, as identified from local grab sampling, suggests the presence of reproducing populations within the vicinity to allow recovery of denuded areas to occur.’ - please provide further discussion on the impact of the project on Ocean Quahog.  
Juveniles should be included when reporting the total number of Ocean quahog recorded in a survey or sample. Please clarify the numbers found in the relevant surveys.
22. 8.2.1 - ‘The seabed sediments and ocean quahog are representative of PMF habitats and species and are thus acknowledged to be of conservation value at national level and are thus judged to be of High value. Therefore, the impact significance of seabed take in respect of sediment habitats and ocean quahog is judged to be Minor.’ - this paragraph doesn’t appear to make sense. Please clarify.
23. 8.2.1 - please expand upon the idea of micro-siting infrastructure to avoid pockmarks. Please clarify what infrastructure has the potential to impact pockmarks. In the same section it is stated that changing an Annex 1 habitat to an artificial habitat has been judged to have a minor effect magnitude – please clarify the rationale for this statement.
24. 8.2.4 - please expand upon the potential effect of anchor chains on pockmarks.
25. 8.2.5.3 - the worst case area of sediment habitat PMF affected will be 0.6578 km<sup>2</sup> – please contextualise this against other areas of the sediment habitat PMF.
26. 8.2.5.3 - ‘In addition, the total extent of PMF habitat will be fully restored, and remaining effect pressures will be removed, at the end of the project life and on decommissioning and removal of seabed infrastructure.’ - the pipeline protection materials are unlikely to be recovered – please provide further explanation of the permanent impact on the PMF.
27. 8.3.1 – ‘A formal 500 m safety exclusion zone will be established around each of the wells once drilled (Petroleum Act, 1987) (Marine Scotland, 2021b). This will result in an overall exclusion area of 0.785 km<sup>2</sup> around each site or 1.57 km<sup>2</sup> around both wells’ – please clarify how these figures have been derived.
28. 8.3.1 - please contextualise the loss of an area 8.64 km<sup>2</sup> which is defined as heavily fished. What percentage of the CNS can be defined as heavily fished?
29. 9.1.6 - please provide a greater breakdown and explanation of how these atmospheric emissions figures were derived. Have other sources of atmospheric emissions been included other than power generation?  
The section needs to examine how each of the different options for the project will effect atmospheric emissions unless a more clearcut description of the project is available.
30. 9.2 - IPCC AR4 global warming potentials have been used in this section. Please update all relevant calculations throughout the ES using IPCC AR5 global warming potential values.
31. 9.2.2 - please clarify what the unit of measurement is being used here when discussing CO<sub>2</sub> equivalents.

32. 9.2.2 - please put the proposed production emissions in this context of UKCS totals rather than just comparing drilling and installation.
33. Table 9.11 - Estimation of Emissions from Drilling Operations - please clarify what these targets and contributions represent.
34. There is no mention of atmospheric emissions from production operations within the conclusion and very little discussion throughout the section on this. Please provide some further background on the sources of atmospheric emissions from the project and how estimates were derived.
35. 11.1.1 - please clarify why a release of the crude storage inventory has not been included.
36. 11.1.1 - There has not been any discussion of potential releases during bunkering activities – please clarify the likelihood of this and the potential volumes and impact.
37. 11.3.2 - please provide some specifics about the expected behaviour of the Avalon crude in the event of a release
38. Table 1.1 - is it estimated the flow rate will decrease over the 81 days it is anticipated to take to drill a relief well?
39. 11.5.1.5 - 'Furthermore, these marine species... and are unlikely to consume oil-contaminated prey,' please expand upon this point and provide further explanation.
40. 11.6.5 - what is the conclusion of the MEI assessment? Is there the potential for an MEI as a result of a well blowout? Has a release of stored crude from the FPSO been considered?
41. 11.7.2.2 - being members of OSRL does not automatically give operators access to the OSPRAG Capping device. Please confirm that Ping have OSPRAG membership or will do in the future.
42. Please describe which body regulates each section of the OWT / power cable.

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 Ping Petroleum under Regulation 12(3), and Ping Petroleum 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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The Offshore Petroleum Regulator for Environment and Decommissioning  
For and on behalf of the Secretary of State for Energy Security and Net Zero