Offshore Petroleum Regulator
for Environment & Decommissioning

The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020

Regulation 14(4)
Secretary of State Decision

BG International Limited

Jackdaw Field Development

To: [redacted]**, Director Environmental Operations, OPRED**

Decision recommendation:

That you refuse to agree, on behalf of the Secretary of State, to the grant of consent by the Oil and Gas Authority (OGA).

The main reasons for the recommendation to refuse agreement are set out below.

From: [redacted]
Environmental Manager

Date: **18 August 2021**

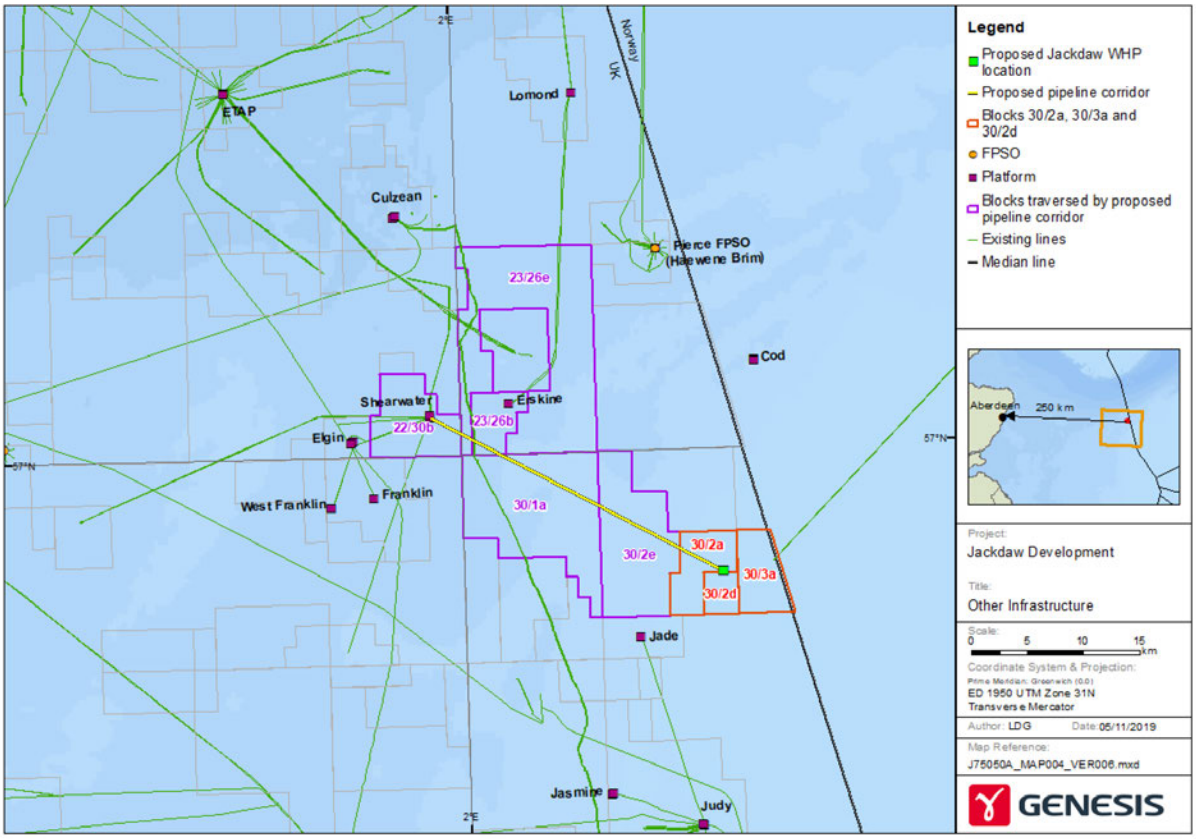
ES Title:	Jackdaw Field Development
Developer:	BG International Limited
Consultants:	Genesis Oil and Gas Consultants Ltd
OGA Field Group:	Central North Sea (CNS)
ES Report No:	D/4260/2021
ES Submission Date:	6 May 2021
Block No/s:	30/02a, 30/03a, and 30/02d
Project Type:	Ultra-High Pressure High Temperature (uHP/HT) gas / Condensate field development
OGA Reference No:	PCON/5800

Project description

The Jackdaw field development proposal is to develop the uHP/HT gas condensate field *via*:

- Installation of a new Wellhead platform (WHP) at the Jackdaw field;
- Drilling four new wells using a heavy-duty jack-up rig (HDJU);
- Installing and commissioning a new approximately 31 km, 12" nominal bore pipeline;
- Operation of the WHP as a not permanently attended installation (NPAI) with control, monitoring, shutdown and operational support provided from the host; and
- Processing of Jackdaw fluids at the Shearwater platform with export via the host's export infrastructure, namely the Fulmar Gas Line (FGL) (in place post 2021) for gas and the Forties Pipeline System (FPS) for condensate.

The proposed project would be located in the CNS, approximately 250 km east of Aberdeen and 30 km southeast of the Shearwater platform and adjacent to the UK/Norway median line.



Key environmental effects

The ES identified and discussed the following as having the potential to cause a significant environmental effect:

- Effects on users of the sea (e.g., commercial fishing & shipping) from the physical presence of temporary and permanent infrastructure;
- Effects on the sediment, seabed habitats, fauna and flora from seabed disturbance caused by the placement of temporary and permanent infrastructure;
- Effects on water quality, flora and fauna from discharges to sea caused by drilling, commissioning and operational produced water;
- Effects on marine mammals and fish from underwater noise caused by piling of infrastructure and vessel traffic;
- Effects on the water quality, protected species and habitats, fauna and flora from an accidental event resulting in an oil release; and
- Effects on the local air quality and climate from the discharge of atmospheric emissions generated from the project;

Key environmental sensitivities

The ES identified the following environmental sensitivities:

- Fish and shellfish: The project area lies within multiple nursery and spawning areas of fish species. Fish such as anglerfish, blue whiting, cod, haddock, herring, lemon sole,

ling, mackerel, Norway pout, plaice, sandeels, spurdog and whiting are known to be found in the project area. Site specific survey footage verified the presence of flatfish, cod and haddock. Cod, spotted ray and spurdog are also listed on the OSPAR list of threatened and/or declining species in the project location. Sandeels are known to have a particularly important ecological function as a prey item for other fish, seabirds and marine mammals. There is evidence that the presence of fines in the sediment reduces the seabed's suitability to sandeels.

- Seabirds: Multiple species of seabird could be present at the project area in various levels of abundance. The highest abundancy of species is attributed to the Northern fulmar, common guillemot, and Atlantic puffin. The abundancy of these species is moderate (between 5-10 individuals per km^2). Sensitivity of seabirds in the project area is generally low throughout the year with exceptions in May and June when sensitivity is extremely high in block 30/08, medium in block 30/03. In September and October, the sensitivity is regarded as high in block 23/26.

- Protected habitats and species: There are no Special Areas of Conservation within 40 km of the project area. The Fulmar Marine Conservation Zone (MCZ) is approximately 32 km from the project area. The MCZ has been designated for its subtidal sand, mud and mixed sediments as well as the Ocean Quahog. During site specific surveys juvenile Ocean Quahog were observed in samples. Horse mussels were observed at some of the site survey transects in the project area, but none of the areas were observed to meet criteria of reefs.

- European Protected Species and pinnipeds: Cetaceans such as harbour porpoise, minke whale, white beaked dolphin and Atlantic white-sided dolphin are likely to occur in the project area, predominantly during the months from May to November. Pinnipeds, such as the grey seal and the harbour seal, may occur in the project area in very low densities, but are far more common close to shore.

- Other users of the sea: Commercial fishing effort in the project area has been assessed as "low" representing less than 1% of the total UK fishing effort. The majority of fishing effort in the project area is focussed on the summer months. Demersal and shellfish fishing gear is most prevalent, but pelagic gear is also used in the project area.

  Shipping density in the area ranges from very low to moderate. The project area sits within a well-established location for offshore oil and gas infrastructure. The closest platform to the proposed WHP location is the Jade installation, situated approximately 10 km to the southwest of the WHP location. The closest installation to the pipeline route is the Erskine installation, which is approximately 4 km to the northeast of the pipeline route, with the Elgin platform located 8 km west-southwest of the Shearwater host facility. The project area is not used for military exercises. There are no wrecks within 10 km of the WHP, but a wreck has been identified 4.3 km from the proposed pipeline route.

- In-combination, cumulative and transboundary sensitivities: The project area is adjacent to the Norway / UK median line and closest (8 km South) to a Norwegian Particularly Valuable Area for mackerel spawning. The installation of infrastructure (siting the WHP and associated 500 metre safety zone) will reduce availability of natural environment to activities such as fishing, but this will be offset by trenching and burying the pipeline so that fishing activities can continue in those locations. No other oil and gas construction activities are planned in the project area at the time installation and commissioning of the Jackdaw project would take place. The project

has the potential to add cumulatively to the produced water discharge and atmospheric emissions at Shearwater.

Public consultation(s)

The ES and the summary of the project was subject to public consultation, for which the public notice was published on 10 May 2021 and ended on 9 June 2021. There were no public representations received.

The further information requested by OPRED, which engaged regulation 12(3), was subject to further public consultation for which the public notice was published on 6 July 2021 and ended on 5 August 2021. There were no public representations received.

Consultation with other authorities

The Joint Nature Conservation Committee, Ministry of Defence, Northern Lighthouse Board, Marine Scotland, and Maritime Coastal Agency were consulted on the summary of the project and the ES submission. All the authorities submitted responses and none of the authorities had objections to the ES.

The authorities who had been asked for comment in relation to the original ES submission were asked to respond in relation to the further information provided. All the authorities responded, and none had objections.

Consultation with other countries

Given the location of the project proposal, Norway was contacted to offer the opportunity to participate in the EIA process. However, no response was received and they therefore did not participate in the EIA process.

Further information

Further information was requested from BG International Limited on 17 June 2021 in relation to areas such as licence information, environmental effects from atmospheric emissions, future phases of development and timings of project works, produced water, and corrosion resistance. Further information was provided in response to the request on 28 June 2021. The further information was considered, and I concluded that some of the further information engaged regulation 12(3) requirements. BG International Limited were accordingly notified to subject relevant responses in the further information to further public consultation in accordance with regulation 12(5).

Conclusion on the significant effects of the project on the environment

The following has been taken into account in reaching a conclusion on the significant effects of the project on the environment:

- The ES;
- Further information provided under regulation 12 as summarised above;
- Any representations received pursuant to regulations 11, 12 and 13, as summarised above; and
- Any conditions that may be attached to the agreement to the grant of consent pursuant to regulation 4(4).

Taking those matters into account, I have concluded that there will be no significant effects of the project on the environment resulting from the following:

Physical Presence of temporary and permanent infrastructure

I agree with the sensitivity level given to the main receptors assessed in relation to physical presence of the project infrastructure. The predominant receptor is societal, represented by commercial fishing and navigation. Both have been assessed as being of low intensity in the project area. Subsea infrastructure (out with the 500 m zone) will be buried and covered by rock in places, the burial and rock cover will be designed to allow for safe fishing interaction. The safety zone associated with the WHP will remove a minor area from availability to commercial fisheries. The areas of safety zone, when compared cumulatively is still less than 1% of the available fishing area for the fishing zone. I agree with the assessment, in that the proposed project impacts resulting from physical presence will not have a significant effect on the environment.

Placement of infrastructure on the seabed

The drill rig footprint will occupy two positions (stand-off and final) and will be deployed multiple times during the commissioning phase of the project. The impact to seabed is reduced by placing the rig in the original seabed depressions. Anchors may also be used and have been assessed.

As is common with offshore drilling the upper well sections will be drilled using Water-based Mud (WBM), and the lower sections utilising Oil-based Mud (OBM). The latter will either be skipped and shipped to shore or treated and discharged to sea. Where cuttings are discharged, the risk is predominantly through smothering on the seabed. The impact of this is contained to an area of 0.063 km^2 from the rig. On completion of drilling, the area where the combined risk to more than 5 % of the most sensitive species in the sediment is predicted to be approximately 0.328 km^2. This reduces rapidly to 0.058 km^2 during the first year following discharge due to re-colonisation by opportunistic species.

Proxy pipeline trenching modelling indicates that the Jackdaw pipeline would not result in a significant impact to the benthic environment, noting that the affected seabed area prone to covering from sediment will likely recover within a period of months. Disturbed cuttings at Shearwater are likely but the impact would be constricted to an area within 500 m of the platform, with the risk to sensitive species rapidly reducing over time. The total permanent impact to seabed will affect 0.133 km^2.

Given some of the sensitive benthic habitats and species observed along the pipeline route, I agree that the sensitivity be listed as ‘medium’ for sediment and habitat quality. I also agree with the level of ‘medium’ for benthos, given the identification of Ocean quahog. Due to some of the fish species being present having conservation significance, I also agree with the level of ‘medium’ for fish sensitivity. The environmental effects from permanent change to the seabed is insignificant.

I agree with the assessment that temporary impacts to the seabed will be insignificant in terms of environmental effects given the ability of the environment to recover. Sediment disturbance into the water column is assessed as insignificant against various receptors. I agree with this assessment noting that the effects will be temporary, short in duration and the ability of the receptors to adapt to the change. Again, the local nature of the change brought by discharge of cuttings and drill mud

and the level of sensitivity of the environment at the location results in an assessment that the effects will be insignificant. I agree that cumulative impacts will not be significant given the size of the impact, the locality, and extent of the impact.

I agree with the assessment, in that the proposed project impacts resulting from placement of infrastructure on the seabed will not have a significant effect on the environment.

It should be noted, that although the project will not have a significant effect in terms of placement of infrastructure on the seabed, the expected seabed impacts could be further reduced by selecting a nearby alternative host facility which would reduce the required length of export pipeline from Jackdaw. The area of impacted seabed could be reduced by 0.7km^2.

Discharges to sea

The high energy water column at the project location is assessed as being of low sensitivity given the good hydrographic conditions. The sensitivity to fish and shellfish is assessed as medium, which I agree with given the nature of species which can be found in the area. The same level of sensitivity is given for marine mammals given their protection status, again I agree. The discharge point for all the marine discharges discussed above will be in open sea (either at 15 m below sea level or directly at the seabed).

As a result of the dynamic nature of the hydrographic conditions at the proposed Jackdaw project location, there will be significant dilution and dispersion within the water column and any deterioration in water quality will be localised and short-term, with the potential for limited traces of contaminants to affect sensitive marine organism receptors in the close vicinity of the discharge point.

The impact to water quality from drilling is assessed as insignificant, which I agree with. The potential impacts to water quality and marine organisms from Jackdaw wellbore clean-up, well completion and pipeline hydrotest fluids are associated with the chemical dosed within these water-based fluids. Upon release, these discharges will be rapidly dispersed and diluted by seabed and surface currents such that any possible impact will be localised, short-lived and any effect unlikely to be detectable above background levels. I agree that the impact to biological receptors is insignificant from the drilling discharges.

During the operational production phase of the project, the introduction of Jackdaw fluids to the Shearwater processing system reduces the discharge dosage of the most toxic chemical used at Shearwater currently. Jackdaw has been designed to tolerate corrosion (using corrosion resistant alloys on the pipeline and topside pipework) rather than treat it by use of chemicals. The increase in produced water as a result of processing the hydrocarbons at Shearwater is an unfavourable outcome because it introduces more chemicals and oil in water to the environment. Aside from this negative impact, there is a positive by-product in that it reduces environmental risk from the most toxic corrosion inhibitor currently in use at the Shearwater platform. The further information provided elaborates on the oil in water increase and the Jackdaw and cumulative contributions to it. The contribution is compared against UKCS levels and deemed insignificant, which I agree with.

My conclusion in respect of the environmental effects from discharges to sea from the project are that the environmental effects from such a source would not be significant.

Underwater noise

The predominant source of noise from the project is linked to the piling activity for the installation of the WHP jacket. The piles required for installation of the Jackdaw WHP are expected to be up to 108" (2.74 m) in diameter and approximately 91.5 m in length with a target penetration depth of around 73 m. A maximum of four piles will be required to install the WHP jacket. It is expected that each pile will take a maximum of eight hours to drive to the required penetration depth and all piles will be installed within ten days.

The piles will be installed with an impact hammer with a maximum capacity of 3,500 kJ, although the estimated maximum hammer energy required to install all piles is 2,835 kJ. The main receptor is marine mammals, but fish have also been assessed. All cetaceans are protected, but the project is not in a protected area. A mixture of high frequency, medium frequency and low frequency cetaceans may be found at the project location when the piling takes place. The likelihood of cetaceans being present is far more likely during summer than in winter. The risk to cetaceans is greatest for high frequency cetaceans (harbour porpoise) given their thresholds to noise. The radius to Permanent Threshold Shift (PTS) from the activity is 1,100 m when piling is at maximum sound pressure level. The radius to PTS sound exposure level is 380 m for high frequency cetaceans and 590 m for low frequency cetaceans with a 50 m soft start where the animal is fleeing at 2 m/s^{-1} this translates to 180 m in high frequency cetaceans and 60 m in low frequency cetaceans when fleeing at 3 m/s^{-1}. The behavioural disturbance from the activity could affect 0.334% of high frequency cetacean populations and 0.060% of the low frequency cetacean populations. Given the vulnerability, value, and protection status of the species, I agree that the sensitivity should be 'moderate'.

With soft start mitigation and other JNCC mitigation (i.e. MMO, PAM etc), and considering the impact on the assumption of flee speeds, I agree that the impact is insignificant. I agree with the assessment, in that the proposed project impacts resulting from underwater noise will not have a significant effect on the environment.

However, I have concluded that the project will have a significant effect on the environment resulting from the following:

Accidental events

The ES assessed worst case spill scenarios from a pipeline rupture, diesel release and well blow-out. Although the pipeline release occurs subsea, condensate is expected to rise and concentrate in the upper water column due to pipeline pressure and oil buoyancy, with a large proportion initially dispersing in the water column. Surface sheen is predicted to cover a small area and would mostly disappear within 15 days of the release, with a low probability of crossing the median line.

Modelling suggests that over 70% of the released condensate will either evaporate or biodegrade by the end of the 30-day simulation, with 30% of the condensate evaporating within the 1st day. There is a medium probability of condensate in the water column crossing the Norwegian median line within a day after the release, but only 17 tonnes remain dispersed through the 12.5 km^3 of the water column by the end of 30 days. No oil is expected to reach any coastlines. 25% of the originally dispersed oil is predicted to be deposited on the sediments, however, the maximum predicted concentration (0.04 g/m^2) is significantly below the environmental threshold (5 g/m^2).

Most of the diesel remains in the upper part of the water column. There is a 74%

probability of diesel in water column crossing the Norwegian median line within a day after the release, but only 1.3 tonnes remain dispersed through the 24 km^3 of the water column by the end of 30 days. There is a very low, 1%, probability that traces of hydrocarbons would reach the Norwegian coastline, well below the defined thresholds. Some diesel originally dispersed in the water column is predicted to be deposited on the sediments, with 31% of the total amount predicted to be deposited by the end of the 30-day simulation. However, the predicted concentrations are significantly below the environmental threshold (maximum 0.45 g/m^2).

In a blow-out scenario, there is a 90-100% probability that a visible sheen could extend approximately 160 km east from the source of the spill and a 25% probability that it could reach up to 520 km east. The deterministic modelling of the worst case predicts the total area of condensate sheen >0.3 µm thick over the entire course of the simulation to be approximately 97,200 km^2. The maximum thickness estimated anywhere at the sea surface is 1,296 µm (1.3 mm). In the event of a blowout occurring the maximum probability of shoreline oiling is 55%. The minimum arrival time for condensate to reach the shore is 20 days for Denmark. Deterministic modelling of the worst case blow-out scenario predicts that less than 1% of condensate would reach the shore. The threshold of 100 g/m^2 is predicted to be exceeded along 36.77 km of coastline (southern Norway and northern Denmark) at the end of the simulation (160 days). There is a low probability of condensate reaching coasts of UK (5%), Netherlands (4%) and Germany (6%).

I agree with the sensitivity score for water quality for pipeline release as being 'low' but disagree with the score for well blow-out. The developer has scored it as 'medium', which I don't feel represents the value, vulnerability and protection status of areas of the environment that a spill would impact. The sensitivity should be classed as 'high' for a well blow-out, based on some sensitive environments (coastal areas) that could be affected. The magnitude has quite rightly been assessed as 'major' for a well blow-out. The developer has built in likelihood criteria to help find an environmental risk level for unplanned events. This is to help understand the level of impact and risk with what is an unlikely environmental effect.

The developer has attributed a likelihood score of 'B' and found the environmental risk to be 'moderate' for a well blow-out. If the sensitivity is altered based on my assessment, the overall impact level remains the same, as does the environmental risk. The environmental impact for such an unplanned event on the water column is significant. Looking further at other receptors for only well blow-out (sediment quality, benthos, fish, seabirds, marine mammals, and offshore protected areas), I agree that the impact would be significant. I agree with the assessment for fisheries and aquaculture, coastal protected areas (after consideration of further information provided), and local communities. The following key measures of the project are envisaged to avoid, prevent, reduce or offset any significant adverse effect on the environment from accidental events:

a) Multiple well barriers – a primary barrier provided by the suitable overbalanced drilling fluids and a secondary barrier consisting of the well casing and blow-out preventer;
b) Well control plan – which consists of well control procedures, equipment, training and drills as well as communication;
c) Relief well plans – which outlines the relevant commitments and procedures for drilling a relief well to abate any well blow-out; and
d) Oil pollution emergency plan – which sets out arrangements for responding to incidents that cause marine pollution by oil.

Although a significant effect would be expected in the case of an unplanned, accidental well blow-out from a Jackdaw well, the mitigation measures and commitments in place will seek to avoid and/or reduce the unlikely impact as far as possible. Combining both the known control and mitigation measures with the unlikely possibility of the significant effect, I find the assessment of environmental effects attributed to accidental events to be valid.

Atmospheric emissions

Given the nature of the environmental impact associated with atmospheric emissions from the development project, and the effects of atmospheric emissions on climate while taking into account climate change objectives (particularly when assessing the effect cumulatively with other existing or approved projects), the magnitude of the impact would be more severe than the level of magnitude assigned by the developer. Assessing the impact based on such a change in magnitude criteria would result in the environmental effects being assessed as significant, rather than insignificant.

The principal climate change objective taken into account when assessing effects of emissions on climate consisted of the targets set out in the Climate Change Act 2008 (as amended). Consideration was also given to supporting industry commitments and initiatives which have been developed to facilitate progress towards the targets – such as the North Sea Transition Deal and the Energy White Paper.

The major contributor to emissions from the development project emanates from the use of the amine unit to extract CO_2 from the produced gas to meet export pipeline specifications (approx. 68% of CO_2(e)). The ES details that the contribution of CO_2(e) from the Jackdaw field to the UKCS emissions based on the projects worst-case annual quantity would reflect approximately 1% of the emissions reported for the year 2018 in the offshore oil and gas sector.

If Jackdaw and Shearwater fields (inclusive of tieback fields to Shearwater) are included, the value would reflect 3.21% of the 2018 reported emissions. Inclusion of Shearwater emissions in a cumulative sense is important, as without Jackdaw, Shearwater's longevity would be notably shortened.

Where the assessment is combined for cumulative purposes with the Elgin platform (a near-by existing project operating in a similar way - e.g., discharging atmospheric emissions after treating sour gas), the CO_2(e) emissions contribution is more significant. Further information provided by the developer confirms that the greenhouse gas CO_2(e) contribution of the project in cumulation with Shearwater and Elgin (based on 2019 Elgin data and 2025 Jackdaw data) would contribute 7.6% of the 2018 UKCS baseline. Further information provided demonstrates that the cumulative emissions from Jackdaw and Shearwater would represent 0.4% and 4% respectively, of the 9.5 million tonnes CO_2(e) target for 2030 set out in the North Sea Transition Deal.

Vented GHG CO_2(e) in the UKCS for 2018 was 677,640 tonnes[1]. The worst-case annual CO_2(e) emissions from the Jackdaw project emanating from the Shearwater amine unit would be expected in 2025 (approx. 139,000 te CO_2(e)), representing 21% of the vented GHG emissions in the UKCS compared with 2018 levels. Gas venting in

[1] OGA, 2020, UKCS Flaring and Venting Report 2020, OGA, viewed 9 August 2021, https://ogauthorityreports.wixsite.com/ukcs-f-v-report-2020

the CNS region for 2018 for CO_2(e) was 380,573 te. Based on the Jackdaw development project, the worst-case annual volume of CO_2(e) from the amine unit in 2026, would represent 36% of the vented emissions in the CNS.

The developer has stated that electrification of the Shearwater host facility and the Jackdaw WHP is being built into the project design, but the certainty and schedule for electrification of the facilities is uncertain, and the emissions reduction would only relate to those emissions caused by power and gas compression combustion plant (approx. 27% of the Jackdaw emissions). Contrary to the justification provided in the further information, I disagree that significant CO_2(e) abatement would come from electrification of the platforms. Electrification of power generation at Shearwater would reduce Jackdaw emissions by 27% but would not reduce the emissions from the amine unit's key venting contribution.

A reasonable alternative option, to produce fluids through an alternative host facility (rather than via the Shearwater platform) and export the fluids and gas using associated infrastructure was discounted by the developer due to brownfield modifications on the alternative being higher than those required on Shearwater and there being no "significant environmental differentiators". I do not agree with the assessment that there are no significant environmental differentiators, when there are clearly two:

- Producing the Jackdaw field via the identified alternative host facility would prevent the need to emit CO_2 from an amine unit at Shearwater; and
- By producing Jackdaw back to the alternative facility, would also reduce the impact of pipeline infrastructure as the distance from Jackdaw WHP to the alternative facility is shorter than to Shearwater by 7km (or 23% less than the proposed 31 km pipeline).

Further information provided suggests that the concept select decision for host selection was based on technical, economic, commercial and environmental grounds. I cannot see any processes that outline how environmental considerations factored into the concept select proposal. The further information again reaffirms the developer's original assessment, that there were no significant environmental differentiators between the two hosts – a conclusion I disagree with.

It is my assessment, that when considering the aggregate volume of projected CO_2(e) on an annual basis related to the selected option for the Jackdaw development, alongside the descriptors for magnitude of the impact, that the resulting effects from the development in terms of effects contributing to climate change – are significant (an opinion unchanged by the further information provided).

The baseline philosophy of the project, in terms of atmospheric emissions, is contrary to the wider environmental protection objectives for the sector. The developer's intent to reduce atmospheric emissions from combustion plant through electrification is evident but uncertain and may not be realised for many years to come. The ambition to reduce atmospheric emissions from the project's primary source (e.g. the amine unit) is anaemic. There appears to be a clear and obvious route to materially reduce the environmental effects offshore from atmospheric emissions, with the added by-product of also reducing environmental effects from pipeline infrastructure. That route would be to produce Jackdaw fluids to an alternate host installation with pipeline export infrastructure that could accommodate Jackdaw produced hydrocarbons whilst avoiding direct emissions to air offshore from stripping and venting CO_2 from produced hydrocarbons.

To avoid, prevent, or reduce the significant adverse effects on climate arising from discharge of atmospheric emissions to the environment, the project would need to be reassessed (in terms of EIA) based on an alternative concept of producing the Jackdaw hydrocarbons back to a host installation with associated export pipeline infrastructure that could accommodate the CO_2 content of the produced gas. By selecting such an alternative, the impacts offshore from emissions on climate would likely not be significant. Introducing conditions on emissions based on the selected option in the ES would not avoid, prevent, or reduce the effect from significant – as any condition would have to be so strict to be appropriate for consideration of environmental protection objectives related to Net Zero. Such a strict condition would be unworkable for the developer's selected concept. To align the project with objectives and targets set out in the Carbon Budgets and the North Sea Transition Deal would require the project philosophy to be revisited, rather than applying conditions.

The likely significant environmental effects resulting from the project's atmospheric emissions (notably via venting from the amine unit) could be avoided, prevented and reduced through (1) selecting the reasonable alternative option available (e.g., to use an alternative host facility with infrastructure that can manage the Jackdaw fluids without venting CO_2), and (2) altering the project's design to fully take into account the carbon reduction targets and Net Zero ambitions of the offshore oil and gas industry and the UK as a whole.

Recommendation

I have set out above my conclusion on the significant effects of the project on the environment.

I recommend that the Secretary of State should refuse to agree to the grant of consent for this project. The reason for this recommendation is that, as set out above, the project will have a significant effect on the environment, resulting from atmospheric emissions, that cannot be avoided, prevented, reduced or offset by attaching conditions to the agreement to the grant of consent.

[redacted] Date 18 August 2021
Environmental Manager
Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of the Secretary of State for Business, Energy, and Industrial Strategy

Decision to refuse to agree to the grant of consent

I accept the recommendation for the reasons given.

On behalf of the Secretary of State, I therefore refuse to agree to the grant of consent.

[redacted] Date 28 September 2021
Director, Environmental Operations
Offshore Petroleum Regulator for Environment and Decommissioning
For and on behalf of the Secretary of State for Business, Energy, and Industrial Strategy.