

# Permitting decisions

## Variation

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We have decided to grant the variation for West Newton 'A' Well Site operated by Rathlin Energy (UK) Limited.

The variation number is EPR/BB3001FT/V004.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision making process in the decision checklist to show how all relevant factors have been taken in to account.

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Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

## Summary of the application

The applicant has requested the addition of the following activities to their permitted operations:

- Inclusion of mechanical lifting;
- Use of a smaller incineration unit;
- Use of hydrogen sulphide scavenger within the stored oil;
- Use of one vent per storage tank instead of an aggregated vent for all storage tanks.

## Key Issues of the Decision

The original permit issued allowed for the drilling of well WNA-2. The applicant has requested to make changes to the permit to allow changes to the proposed testing of well WNA-2.

Since drilling the WNA-2 well, the Operator has gathered additional information which has improved the understanding of the Kirkham Abbey (KA) reservoir target that now indicates it may have an oil leg within the reservoir interval with a gas cap situated above the oil.

Industry best practice is to fully investigate (and produce) the oil section within a reservoir prior to any exploitation of the gas which may provide pressure within the reservoir to enable the oil to be lifted to surface.

Following the WNA-2 testing operation in August 2019 the Operator has determined that the existing techniques available could not maximise the recovery of liquids from the KA reservoir to surface and therefore the Operator has carried out a review of artificial lifting techniques.

This assessment has concluded that a mechanical lifting technique would be the most appropriate for this reservoir target. Furthermore, due to the reduced quantity of associated gas expected during an oil reservoir test, compared to that of a gas reservoir, a smaller gas incineration unit is proposed and assessed as an appropriate engineering solution for handling any waste gas associated with the oil production.

As a result of this review the Operator has requested the addition of the smaller CEB350 incineration unit to Table S1.1 and the update of the following Operating Techniques in table S1.2:

### Waste Management Plan

- RE-05-EPRA-WN-WMP-005 Rev 7 – Addendum 1 including Groundwater Management Plan Rev 2.
- Environmental Risk Assessments RE-05-EPRA-WN-ERA-007 Rev 4 – Addendum 1.
- Odour Management Plan RE-EPRA-WNA-OMP-009 Rev 4 – Addendum 1.
- Gas Management Plan RE-EPRA-WNA-GMP-010 Rev 5 – Addendum 1.
- Work Instruction 21 – Management Procedures for Scrubber Reactants (RE-04-021) Rev 4 – Addendum 1.
- Vapour Recovery Plan R2 – Addendum 1.
- Work Instruction 32 – Operations of Combustion Unit during Well Testing (RE-04-032) Rev-4 – Addendum 1.

### Mechanical lifting

We are satisfied that the inclusion of mechanical lifting is appropriate. From a gas management viewpoint, it is preferable to a gas lift technique, such as nitrogen lifting as it does not introduce inert gas into the natural gas flow from the well and therefore significantly reduces the likelihood of cold venting of incombustible mixes or the need to add support fuel.

### The use of a smaller flare unit.

The operator currently has approval to use a CEB 1200 incineration unit (1.2 – 12 MWth) or CEB 4500 incineration unit (4.5 – 45 MWth) for the Extended Well Test. As it is now anticipated that the flow test will be an oil test rather than a gas test the operator is proposing to use a smaller CEB 350 incineration unit (0.35 – 3.5 MWth).

We have reviewed the CEB350 incineration unit's specifications and we are satisfied that this change is appropriate. We encourage operators to ensure that flares are appropriately sized to handle the anticipated gas flow and we consider the addition of the CEB 350 incineration unit provide additional flexibility and allows for the safe management of lower volume gas flows.

In regard to air emissions, the CEB 350 flare has the same low emission combustion characteristics as the larger CEB1200 or CEB4500 which were assessed as part of the previous permit variation and were assessed as being appropriate. As this is a smaller unit, it will therefore have a lower mass emission rate and we therefore are satisfied that the change in emissions profile will be minimal compared to what was previously permitted.

### Use of scavenger in stored oil

The Operator is proposing to include for the use of a hydrogen sulphide scavenger within the crude oil storage tanks to remove any trace of hydrogen sulphide which maybe present within the oil prior to transportation.

This will only be used if deemed necessary once a sample of any recovered oil can be analysed at surface. The hydrogen sulphide scavenger will either be injected into the flow line through an injection skid downstream of the choke after the wellhead or directly added as a single dose application into the storage tanks. This material will not be introduced to the well or into the formation and will only be added to produced fluids prior to storage and subsequent transportation.

We are satisfied that this change is appropriate.

### Use of individual vent points on storage tanks

Whilst we are generally seeking to reduce vent tanks emissions from oil storage tanks by encouraging capture and utilisation wherever possible, that requirement only normally applies to production sites where the volume of vented gas can be more accurately assessed and meaningful cost benefit analysis carried out. The current permitted activities only covers oil storage during well testing.

The proposed change to individual tank vents will have no effect on the mass emission rate from the tanks and we are therefore satisfied that this change is appropriate.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
<b>The site</b>	
Waste management plan	The operator has provided a waste management plan which we consider is satisfactory.
<b>Environmental risk assessment</b>	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility.  The operator's risk assessment is satisfactory.
<b>Operating techniques</b>	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.  The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
<b>Permit conditions</b>	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).
<b>Operator competence</b>	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.  Paragraph 1.3 of the guidance says:  “The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to

Aspect considered	Decision
	<p>development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”</p> <p>We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.</p> <p>We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.</p>