

West Newton A Environmental Permit Variation

Q&A from engagement event

December 2021

This document answers questions about the Environment Agency's role in the determination of the environmental permit variation for West Newton A well site (HU11 5DA). These questions were asked during a live, virtual engagement event on 16th December 2021.

Q1a. Please advise what it would do to the air quality nearby the site should it get the go ahead?

Q1b. SOCOTECs new VOC modelling shows potential for locals to be gassed out as previously, Withernewick and Marton, how will you guarantee this never happens again?

Proposed operations on the site will involve the burning of gas in flares and generators, burning of diesel in vehicles and plant, and some loss of gas to atmosphere from nitrogen lifting. These activities release pollutants that have the potential to impact on offsite air quality.

As part of the permit variation application Rathlin have carried out an air quality impact assessment. This assessment quantifies the releases to atmosphere and uses air dispersion modelling to predict the maximum pollutant concentrations that could occur at nearby receptors such as houses. These predicted concentrations are then compared with air quality standards and environmental assessment levels to determine if the predicted concentrations are within these limits. As part of the Environment Agency's determination of the permit variation we will look at the inputs and outputs from the model to determine if the modelling is representative of the activities proposed and if the impacts are acceptable.

The air quality impact assessment document is available to view on the Environment Agency West Newton A citizen space consultation page: [HU11 5DA, Rathlin Energy \(UK\) Limited, EPR/BB3001FT/V005: environmental permit consultation - Environment Agency - Citizen Space \(environment-agency.gov.uk\)](#)

Q2. Why would you use Rathlin's own air quality report? Will you not be carrying out your own?

We require the applicant to submit air quality reports in a strict format using approved software. This allows the Environment Agency's Air Quality Monitoring and Assessment Unit (AQMAU) to re-run the applicants model and check both the input parameters and the generated outputs as if we had generated the model ourselves. AQMAU will also carry out checks to determine what changes to the input parameters would have a significant effect on the outputs – a process known as 'sensitivity analysis'.

A guide to the information that must be provided in an Air Quality Report is available on gov.uk: <https://www.gov.uk/guidance/environmental-permitting-air-dispersion-modelling-reports>

Rathlin's consultants have carried out the site modelling using an approved software package known as ADMS (Atmospheric Dispersion Modelling System). The electronic modelling files are available on the Environment Agency West Newton A citizen space consultation page: [HU11 5DA, Rathlin Energy \(UK\) Limited, EPR/BB3001FT/V005: environmental permit consultation - Environment Agency - Citizen Space \(environment-agency.gov.uk\)](#) Note that analysis of these requires air dispersion modelling software.

Q3. Will the site become a COMAH site with its regulations?

Whether the site will be in scope of lower tier COMAH is dependent on the quantity of crude oil to be stored and the properties of that oil. This will be looked at during the permit determination.

Q4. Are there enough trained staff in the local HSE and EA to deal with any incident on site, as last time I had to contact HSE ABERDEEN during the incident?

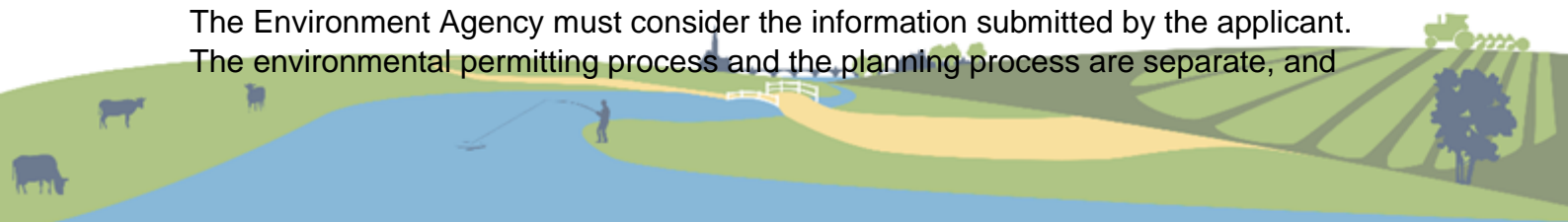
The Environment Agency has sufficient incident management staff based locally, as well as access to experienced oil and gas experts based in Yorkshire, and around the country. More information about our incident response and how to report an incident can be found on gov.uk: [Environment Agency customer service commitment - GOV.UK \(www.gov.uk\)](#)

Q5. Liquid CO₂ is mentioned to be used, the EA declined the use of this previously, why are they considering it again when it was disallowed before?

Previously Rathlin Energy decided not to propose use of carbon dioxide for lifting as a technique at the West Newton A well site and for that reason its use was not included in the most recent West Newton A permit variation. The choice of either nitrogen or carbon dioxide for gas lifting does not lead to a significant difference in the environmental impact from well lifting operations.

Q6. This application is for 6 Wells when only 4 Wells are mentioned in the new planning application, why are the EA considering this application on flawed documentation?

The Environment Agency must consider the information submitted by the applicant. The environmental permitting process and the planning process are separate, and



the Operator requires both in order to be able to proceed. If they are different, the Operator would be limited by the smaller of the two.

Q7a. Are you aware of the independent hydrogeological report that was sent to the EA by JBA Consulting which uncovered serious flaws relating to suitability of the liner?

Q7B. Would you like a copy of the independent hydrogeological report sending to you for your perusal?

Please submit the report as part of the consultation response. We will consider all responses during our determination of the permit variation application.

Q8a. Why are the EA considering the practice of cold venting after all the problems that were caused previously in the local communities?

Q8b. Venting has caused serious problems with H₂S leaks before, how will you guarantee this never happens again?

Q8c. How can the EA be confident of Rathlin's odour management plan when previously it has been a problem at WNA?

Venting and odour management will be considered as part of the permit variation determination. The applicant has proposed carrying out short duration venting of non-combustible gas mixtures resulting from well treatments and gas lifting. If approved the applicant will have to use best available techniques and appropriate measures to prevent and minimise emissions. This will include the use of combustion units with support fuel to reduce odourous emissions, something that was not in place during initial site operations in 2014. Well testing at West Newton A in 2021 resulted in one odour complaint. Due to the nature of the activities being carried out, even with all required control measures in place, a residual risk of offsite odour will remain.

Pollution is an emission which may be harmful to human health or the quality of the environment, cause offence to a human sense or impair or interfere with amenities or other legitimate uses of the environment. When an odour is causing serious pollution it is unacceptable, even if all appropriate measures are being used to prevent or minimise the odour. When an odour is not causing serious pollution, and all appropriate measures are being used to prevent or where that is not practicable to minimise odour but are not completely preventing odour pollution, a level of residual odour has to be accepted by us.

Whether or not odour emissions amount to serious pollution depends on a number of factors. There is no single method of reliably measuring or assessing odour pollution. Any conclusion is based on a number of pieces of evidence. The factors used to determine the degree of odour pollution are the frequency and duration of the odour, the exposure intensity, the offensiveness of the odour, and the receptor sensitivity (location the odour is detected).

The proposed operations include the flaring of gas in enclosed units for several days at a time during periods of well testing. This activity may result in some off-site odour. The risks of offsite odour from proposed oil production and natural gas production and use for generation are expected to be lower.

Q9a. Will the applicant's past record of H, S, and E management be considered as to whether they are competent to manage an expansion of operations at this site?

Q9b. Will you take into account (in your decision) Rathlins past history of breaches?

The applicant's compliance record will be a consideration during the determination of the permit.

Q10. The West Newton A liner is now getting on 10 years old and may not be up to current standards. In a very similar situation at Wressle they were required to install a new liner. A hydrology report for the WNA Planning Application found there was a serious lack of information to demonstrate the existing liner was fit for purpose. In the absence of evidence that the liner is fit, or a new liner being installed, should the permit be refused? Or could a new liner be a condition of permit being issued?

We will consider the site lining requirements as part of the permit variation determination.

The West Newton A well site was constructed in April 2013 prior to the Environment Agency issuing the environmental permit in April 2014.

The well site is lined with a high density polyethylene (HDPE) liner material of a similar type to that used in landfill sites. It is protected each side by a geomembrane and is overlain by a stone aggregate surface. In addition, the site is underlain by a 40+ metre thickness of naturally occurring low permeability boulder clay.

During site construction the operator commissioned construction quality assurance verification and a construction completion report was produced. We inspected the construction completion report, including the HDPE liner welding and testing records as a part our compliance auditing.

Visual inspection of the liner in the open section of the perimeter containment ditch is carried out as part of compliance visits.

Potentially polluting substances on the site are stored in primary containment tanks or containers, with larger inventories having secondary containment. The HDPE liner is providing tertiary/secondary containment. These measures together with the naturally occurring clay beneath the site mean surface operations do not present a significant risk to groundwater quality.

Q11. The Committee on Climate Change has recommended that in four years' time flaring on oil and gas sites should be permitted only for safety reasons. Given the site is planned for 25 years, and history of serious gas leaks and noxious odours, will the permit require meeting this standard? The new Planning Application screening request states "Gas on site is anticipated to be ~170,000m³ per day." but there is no pipeline to export the gas. If they burn it to generate electricity on site, will they be required to connect to the grid to export the electricity, otherwise the gas would be mostly wasted or flared?

We are aware of the recommendation of the Committee on Climate Change that flaring should only be for safety purposes but this is not the law at the moment so we can't restrict the permit in this way. If it does become law in the future, then we have the ability to vary permits to reflect that change.

Q12. Did the EA carry out investigations to potentially radioactive drilling muds spilling from total environmental trucks when leaving the site?

The Environment Agency investigated a report of a spillage from a truck leaving the Rathlin West Newton A well site on 16th May 2019. Our investigation concluded that a quantity of salt/potassium chloride saturated rock cuttings had been lost on to the road.

