

Permitting decisions

Variation to permit

We have decided to issue the variation for Fiskerton airfield well-site operated by Egdon Resources U.K Limited.

The variation number is EPR/SP3527JF/V002

We have also carried out an Environment Agency initiated variation to the permit.

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.

This variation is required as the Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2016, regulation 34(1), to periodically review permits. As a result of that review we have identified a number of necessary changes we must make to reflect current legislation and best practice. These changes principally relate to:

- Implementation of the Mining Waste Directive namely the addition of extractive waste management activities;
- Addition of groundwater activities; and
- Oil storage activities.

The variation also aim to:

- Consolidate all previous variations to the original permit so as to bring them together into one permit so the requirements will be clearer.
- Formalise changes to monitoring requirements and compliance limits where we have agreed them in writing, for example as the result of a hydrogeological risk assessment review.
- Address site specific issues which result in a change to the current permit, for example incorporating completed improvement conditions into the permit and removing inconsistencies.

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.

This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- summarises the decision making process in the [decision checklist](#) to show how all relevant factors have been taken into account
- explains why we have also made an Environment Agency initiated variation
- shows how we have considered the [consultation responses](#).

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

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

Brief outline of the process

The installation comprises of oil production activities at a single site (approximately 1.22 hectares in area) at which crude oil is abstracted from a natural underground reservoir. It is located in the Parish of Fiskerton, approximately 5.0 km east of the City of Lincoln.

The site is currently producing oil from two existing wells (FA-1 and FA-3), with two additional production wells (FA-4 and FA-5) that are yet to become operational (as they have not yet been drilled/constructed). Crude oil, produced water (water naturally present in the crude oil) and associated gas are drawn to the surface by electrically powered pumps, where equipment (including four small line heaters) separates the oil and water, which is stored in oil and produced water storage tanks.

The oil storage tanks (eight in total) allow gas entrained within the oil to vent to atmosphere via a single vent line emission point and scrubber system. The produced water is re-injected back to the producing formation (Basal Westphalian Sandstone formation) via an existing re-injection well (FA-2). The crude oil is exported from site via road tankers, which is transported a nearby oil refinery, where further processing of the crude oil into fuel and other products takes place. The site is powered by a mains electricity supply and there is no permanent water supply.

Production from the site is estimated at between 100 to 600 bbls per day (15.9 to 95.4 cubic metres (m³) per day). Current production from the site's two existing wells (FA-1 and FA-3) is approximately 550 bbls of fluid, of which 90% (500 bbls) is produced water. The total oil storage capacity via the site's eight storage tanks (F1 to F8) is 2,842 bbls, or 451.8 m³

Mining waste is generated from routine well maintenance activities, well work overs, and the construction of two new proposed production wells (FA-4 and FA-5, for which pre-operational conditions are specified and discussed below). During the abstraction process wax and scale can precipitate from the well fluids and be deposited on the walls of the tubing, casing, rods and pumps. The deposition if left untreated will result in poor production efficiency and mechanical failure of the pumping system. Typical mechanical failures include broken rods, seized pumps and plugged tubulars. To prevent the loss of produced fluids and mechanical failures well maintenance activities are routinely carried out on the pumping systems via hot water washing; this involves circulating heated fluids around the well pumping system to dissolve the deposits. This activity can be considered a preventive maintenance measure, if not carried out the result would lead to a complete pumping system failure. The rectification of the failure is high cost and a greater operational and environmental risk.

The principal releases into the environment from the site comprise:

- (a)** Emissions to air of gaseous hydrocarbons from separation of volatiles in storage.
- (b)** Emissions of gaseous hydrocarbons from the road tanker by displacement during loading.
- (c)** Produced water from the producing reservoir which is contained and injected back into the producing reservoir.
- (d)** Contaminated rainwater from well cellars and containment systems/bunds is removed by tanker for off-site treatment.
- (e)** Engineering waste resulting from maintenance work is removed for disposal at a licensed waste disposal facility.
- (f)** Noise from electrical machinery and pumps.

The operator may chemically treat production fluids with corrosion, wax and scale inhibitors to prevent pipework, tank or well damage. These fluids may be treated with biocides to prevent reservoir souring prior to re-injection. There is insufficient gas produced with the current wells to make recovery and beneficial use economic.

There are no sites of special scientific interest (SSSI) or European designated sites within proximity of this existing site.

Description of the changes introduced by the variation

This is a normal variation to:

- 1) Update an existing Installations Activity; Oil storage and handling has been updated to a schedule 1.2 A(1)(e)(i) activity under the Industrial Emissions Directive and updated Environmental Permitting (England and Wales) Regulations 2016, as a result of renumbering of schedule 1 activities in the updated regulations. This activity was previously permitted as 1.2 A (1) (h) (i) in the existing permit (issued 09/09/2009). The existing oil storage activities on site at Fiskerton have not changed from those currently permitted.
- 2) Update an existing Mining Waste Operation, as defined by the Mining Waste Directive and Schedule 20 of the Environmental Permitting (England and Wales) Regulations 2016 as amended, relating to the management of extractive waste not involving a Mining Waste Facility. The permit is being varied to include activities specified in the approved Waste Management Plan and these include management of extractive mining wastes from near well-bore treatments involving hot water washing, leak-off testing and well work-over operations.
- 3) Update an existing groundwater activity, as defined by the Groundwater Directive and Schedule 22 of the Environmental Permitting (England and Wales) Regulations 2016 as amended, for the re-injection of produced water for production support back to the producing formation (Basal Westphalian Sandstone formation).

The activities on site have not changed significantly from those currently permitted. This permit variation and consolidation is part of an onshore oil and gas sector wide review. There are no other changes to the permit as a result of this variation.

Key issues of the decision

This variation is part of a sector wide permit review of onshore oil and gas sites. The variation to the permit is for continued operation of an existing conventional oil and gas production site. This variation does not permit any hydraulic fracturing as specified in Schedule 1 of the permit under Table S1.1, activity A6.

The site has been regulated via an installation permit as an onshore oil and gas production facility (with unloading, handling or storage of crude oil) since 29/03/2012 under the Environmental Permitting (England and Wales) Regulations 2010 (now the Environmental Permitting (England and Wales) Regulations 2016).

Since 1 October 2013 we have taken the view that operators of new onshore oil and/or gas exploration or appraisal facilities require environmental permits where activities include:

- the management of extractive waste, whether or not this involves a waste facility (as a mining waste operation)
- flaring of waste gas using a flare which has the capacity to incinerate over 10 tonnes a day (as an installation)
- a water discharge activity
- a groundwater activity, such as an indirect discharge of pollutants as part of high pressure high volume hydraulic fracturing
- waste being managed that meets the thresholds for radioactivity set out in the 2016 Regulations (as a radioactive substances activity)

We now consider that the same environmental permits are required for existing onshore oil and/or gas facilities, in addition to the permit required for crude oil unloading, handling or storage, or treatment. This permit variation and consolidation brings these permits in line with the new regulations and approach for permits issued since 2013.

Installation Activities

The Installations activities (oil storage, treatment and handling), have not changed at this site. The activity reference has been amended to align with the legislative change as a result of the updated Environmental Permitting (England and Wales) Regulations 2016. Limits on activities have been specified in this permit to align with our current permit wording under the standard rules permit (SR2015 No.2) for oil storage.

Mining Waste Activities

A permit subject to the Mining Waste Directive covers the management of extractive waste generated during oil and gas production. This variation does not permit any hydraulic fracturing. We have specified this limit in Schedule 1 of the permit under Table S1.1, Activity A6.

The operator may also undertake near wellbore treatments/maintenance during the lifetime of hydrocarbon production from the wells, as part of routine maintenance activities, which includes hot water washing. The purpose of hot water washing is to remove the build-up of paraffin precipitates. The process involves circulating heated water (heated to degrees 70°C) down the well, to the production tubing above the perforations and is circulated back to the surface to the storage tanks. The hot water wash does not have any contact with the reservoir formation and does not pose a risk to groundwater.

We have imposed an improvement programme for gas management at the site in line with the sector guidance under improvement conditions (ICs) 10, 13, and 15. We are satisfied that these measures to minimise risk of air emissions together with condition 3.1.1 provide acceptable controls.

The Waste Management Plan (WMP) includes a description of the processes that will generate extractive waste, the waste types, how they will be minimised and how they will be stored on site. The Operator must operate the existing wells (FA-1, FA-2 and FA-3) and the proposed new production wells (FA-4 and FA-5, following their construction) in accordance with the WMP which forms part of the permit. The additional oil extraction wells will be drilled and the resulting wastes managed under this approved WMP.

If the operator wishes to carry out different or additional activities not covered by this permit, a further variation of the permit will be required. Any such variation application would be determined on its merits and would be subject to our normal consultation process. Any further application to vary operations to manage mining waste will require an amended waste management plan to be submitted.

Except where a permit condition imposes a different requirement, the permit requires the Operator to comply with the techniques on the WMP and limit the activities to those stated (unless otherwise agreed in writing by the Environment Agency). We will authorise only minor amendments to the WMP without the need to vary the permit.

Groundwater Activities

A groundwater activity, in general terms, is defined in Schedule 22 of the 2016 Regulations as meaning the discharge of a pollutant that results in the direct input of that pollutant to groundwater, or a discharge of a pollutant in circumstances that might lead to an indirect input of that pollutant to groundwater or any other discharge or activity that might lead to a direct or indirect input of that pollutant to groundwater. The groundwater activity for this site is to re-inject produced water resulting from the extraction of hydrocarbons into the Basal Westphalian Sandstone, as specified under activity reference A7 in Table S1.1 in Schedule 1 of the permit. The Basal Westphalian Sandstone formation is located approximately 1,211 metres below ground level.

We have reviewed the Hydrogeological Risk Assessment submitted with the supporting documents against our information and conceptual understanding of the location. We are satisfied that the potential risks to groundwater have been identified and addressed through mitigation measures and controls specified in this permit.

This includes a requirement for groundwater monitoring to be carried out under improvement condition (IC) 11 (for the produced water from existing production wells FA-1 and FA-3) and pre-operational measure (PO) condition 1 (for the produced water from the proposed production wells FA-4 and FA-5) to ensure that the risk of pollution from re-injection of produced water continues to be assessed throughout the lifetime of this environmental permit. We have also specified compliance limits for maximum daily volume (cubic metres day) and rate (litres/second) of the re-injection.

This permit includes conditions taken from our standard environmental permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations, Mining Waste Directive, Industrial Emissions Directive, Groundwater Directive, Water Framework Directive and other relevant legislation.

This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the application and accepted that the details are sufficient and satisfactory to make the standard conditions appropriate.

Gap Analysis

We have assessed the Operator's gap analysis response which we received on 29/06/2017. We have included a number of improvement conditions (ICs) in response to this.

Schedule 5 responses

We requested additional information to be provided under a schedule 5 notice issued on 06/03/2018. The operator's responses were received on the 15/05/2018 and 23/05/2018. We are satisfied that the notice has been complied and additional information provided in order that the permit can be determined. Any outstanding issues have been included as part of our improvement programme under table S1.3 under the permit.

Improvement Programme

We have imposed the following improvement conditions (ICs) within the permit:

1.) Improvement condition: Secondary and tertiary containment (as IC9)

Improvement condition IC9 is necessary to ensure that secondary and tertiary containment systems meet the standards required of a new oil and gas site. This will reduce the likelihood of any uncontrolled polluting discharges to the environment.

2.) Improvement condition: Leak detection and repair (as IC10)

Improvement condition IC10 is required for a leak detection and repair plan, which is needed to manage fugitive VOC emissions from potential leak points such as seals, pumps and valves. This standard technique is a method for identifying and prioritising potential sources of leaks, developing a leak detection and repair programme using the monitoring standard EN 15446 including assessing reductions in emissions resulting from the programme and estimation/calculation of any residual emissions. The EN 15446 method is described in the Refineries BREF (2015) as an available method for carrying out monitoring of fugitive emissions. Alternative but equivalent methods can be proposed.

3.) Improvement condition: Groundwater Monitoring Plan (as IC11)

Improvement condition IC11 is required because there is currently no groundwater monitoring plan in place for the existing re-injection of produced water (this is a directly associated activity in the previous permit). The groundwater monitoring plan, once approved, shall be incorporated into the permit as an operating technique.

Groundwater monitoring is necessary to help determine whether the re-injection of produced water (from production wells FA-1 and FA-3 to ground via reinjection well FA-2) is affecting the quality of groundwater and whether satisfactory measures are being undertaken to prevent groundwater pollution. Groundwater monitoring is required for the purposes of requisite surveillance in accordance with the Environmental Permitting (England and Wales) Regulations 2016. The submission of a groundwater monitoring plan will ensure that groundwater monitoring is based on the site conceptual model and hydrogeological risk assessment.

A separate pre-operational condition is included for the groundwater monitoring plan for the proposed re-injection of produced water from proposed production wells FA-4 and FA-5 (which are yet to be constructed).

4.) Improvement condition: Updated written Environment Management System (as IC12)

Improvement condition IC12 is necessary as based on the information submitted with the application we have identified a number of procedures that do not appear to be in place. This improvement condition requires the relevant procedures to be written into the operator's management system, and to be adhered to. The management system will be subject to the usual compliance audits in the future.

5.) Improvement condition: Updated written Gas Management System (as IC13).

Improvement condition IC13 is necessary as based on the information submitted with the application we have identified a number of procedures that do not appear to be in place. This IC requires the relevant procedures to be written into the Operator's management system, and to be adhered to.

The gas management system will need to consider both the gas currently generated from the fluids produced via the sites two existing wells (FA-1 and FA-3), and the gas produced via the two proposed/new wells (FA-4 and FA-5 which will target less mature reservoirs than those currently exploited via FA-1 and FA-3). The management system will be subject to the usual compliance audits in the future.

6.) Improvement condition: Air emissions monitoring (as IC14)

Improvement condition IC14 is necessary as the site features emissions to air with the potential to cause pollution. We have applied improvement condition 14 to require the operator to undertake appropriate emissions monitoring from each of the emission points on the site to understand the current performance of the process/equipment which gives rise to the emission. We will use the results of this monitoring to determine whether the operator's processes and equipment minimises the emission to air to as low as reasonably achievable in line with best available techniques. We expect the Operator to use these monitoring results when responding to IC13, to ensure they are applying appropriate measures/best available techniques for the management of waste gas arising from their production of hydrocarbon.

Where appropriate, we will use these monitoring results to set appropriate assessment levels or compliance limits for the operator to comply with in future.

By requiring on-going emissions monitoring, this condition will ensure that the operator achieves, and then continues to operate their processes and equipment to an acceptable standard, and commensurately reduces their environmental impact to as low a level as is reasonably practical.

7.) Improvement condition: Vapour recovery (as IC15)

Improvement condition IC15 is necessary as the operator does not appear to be currently complying with the requirement to capture and recover all hydrocarbon vapours arising from the loading and unloading of liquid hydrocarbons into vehicles.

Vapour recovery is necessary both for safety reasons and also to reduce the environmental impacts of storing, loading, transporting and unloading hydrocarbons.

8.) Improvement condition: Site condition report (as IC16)

Improvement condition IC16 is necessary as a review of the site condition report by the operator is required to ensure that Article 22 of the Industrial Emissions Directive (IED) is complied with. A site condition report is required where there is a possibility of soil and groundwater contamination from activities that involve the use, production or release of a relevant hazardous substance, as defined in the IED.

The operator has not provided a site condition report with baseline data to confirm the current state of any soil and/or groundwater contamination, or confirmed that existing soil and groundwater data for the site enables a baseline to be defined for the site.

Decision checklist

Aspect considered	Decision
Receipt of application	
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.
Consultation	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website because of the high levels of public interest in the onshore Oil and Gas sector. The application itself is NOT high public interest.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> • Local Authority, Environmental Health/Protection (West Lindsey District Council) • Food Standards Agency • Health and Safety Executive • Public Health England • Local Mineral Planning Authority (Lincolnshire County Council) <p>The comments and our responses are summarised in the consultation section.</p>
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	<p>We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits.</p> <p>The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.</p>
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility including the discharge points. The plan is included in the permit.

Aspect considered	Decision
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We have assessed the site condition report and concluded that it will need updating in order to comply with requirements of Article 22 of the Industrial Emissions Directive. We have therefore imposed an improvement condition requiring the operator to review and update their site condition report to include at least the following:</p> <ul style="list-style-type: none"> i) Consideration of oil storage areas including oil storage vessels, bunds, loading and unloading areas and other potential sources of contamination as shown in the site location plan. ii) Reference to any historic spillages, the chemicals involved and locations baseline soil sample results and groundwater data. We have included an improvement condition (IC16) in the permit to review the site condition report to ensure Article 22 of the Industrial Emission Directive is complied with. <p>The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emission Directive.</p>
Waste management plan	<p>The operator has provided a waste management plan which we consider is satisfactory.</p>
Biodiversity, heritage, landscape and nature conservation	<p>The application is not within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. There are three LWS (local wildlife sites) Barlings Park (1.7km to the north-west (NW) of the site), Fiskerton Moor Wood (1.2km to the north-west of the site), Bush Reed Fiskerton (1.5km to the south of the site) and an AW (Ancient Woodland) Barlings Park (1.7km to the NW of the site).</p> <p>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites.</p> <p>There are not anticipated to be any significant changes in emissions to air as a result of this variation. There are no mechanisms for impact at the designated conservations sites within the relevant distance criteria.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance</p>
Environmental risk assessment	
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>There will be no increase in emissions as a result of this variation, and consequently no increase in environmental risk.</p>

Aspect considered	Decision
Operating techniques	
<p>Operating techniques</p> <p>Water Quality</p>	<p>We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance and we consider them to represent appropriate techniques for the facility.</p> <p>We are satisfied that the risks to groundwater have adequately been assessed and the proposed activities are not likely to have an adverse impact on the hydrological features in this area.</p> <p>To the extent that it might lead to a discharge of pollutants to groundwater (a 'groundwater activity' under the EPR 2016), the Permit is subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit will require the taking of all necessary measures to prevent the input of any hazardous substances to groundwater, and to limit the input of non-hazardous pollutants into groundwater so as to ensure such pollutants do not cause pollution, and satisfy the requirements of paragraph 6 of Schedule 22 and Article 6(1) Groundwater Daughter Directive.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <p>In addition we have imposed condition 3.5.1 which requires the operator to monitor groundwater quality.</p> <p>IC9 requires the operator to review their site containment in order to demonstrate there is no pollution risk to surface and groundwater</p> <p>IC11 requires the operator to install groundwater monitoring to monitor re-injection activities on site.</p> <p>IC12 requires the operator to ensure the procedures for well integrity are maintained during operation of the re-injection well FA-2</p>
<p>General operating techniques</p>	<p>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.</p> <p>The operating techniques that the operator must use are specified in table S1.2 in the environmental permit. This includes the requirement for the Operator to provide a waste management plan and the information required within this. The waste management plan, including associated documents, has been assessed in accordance with these requirements and is approved subject to conditions.</p> <p>Condition 2.3.1 ensures that the operations are limited to those described in the WMP and in table S1.2. It also ensures that the Operator follows the techniques set out and that any deviation will require our written approval. Any significant changes will require a formal variation of the permit. Where a condition imposes a specific requirement that will take precedence over anything in the plan.</p> <p>In addition we have specified additional improvement conditions as part of the permit review to ensure these operations continue to meet the requirements of our Onshore Oil and Gas Sector Guidance, August 2016.</p>

Aspect considered	Decision
Operating techniques for emissions that screen out as insignificant	<p>Air emissions of Methane, Ethane, Propane and Butane have been screened out as insignificant in the operator's H1 assessment (provided with the variation application). To ensure that gas management and utilisation on site is BAT in accordance with our sector guidance we have included improvement conditions IC10, IC13, IC14 and IC15 to review gas management, leak detection and emissions and vapour recovery during unloading in order to agree that the applicant's proposed techniques are BAT for the installation.</p> <p>We consider that the emission limits included in the installation permit along with the ICs above reflect the BAT for the sector.</p>
Odour management	<p>We have considered potential odour emissions from the activity during our determination. We do not consider that the activities will give rise to significant levels of odour. Condition 3.3.1 in the permit requires that emissions from the activities shall be free from odour at levels likely to cause pollution outside the site.</p> <p>We are satisfied that appropriate measures will be in place to manage odour. However, we have included condition 3.3.2 in the permit. This condition enables us to require the Operator to submit a specific odour management plan, should odour become a problem. If a plan be required in the future, once we have assessed this plan is suitable, it will form part of the permit and the Operator must carry out the activities in accordance with the approved techniques.</p>
Noise management	<p>We have considered emissions from noise and vibration during our determination. Condition 3.4.1 in the permit requires that emissions from the activities shall be free of noise and vibration at levels likely to cause pollution outside the site.</p> <p>We have included condition 3.4.2 in the permit. This condition enables is to require the Operator to submit a specific noise and vibration management plan, should noise and vibration become a problem. If a plan be required in the future, once we have assessed this plan as suitable, it will form part of the permit and the Operator must carry out the activities in accordance with the approved techniques.</p>
Permit conditions	
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.
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.
Changes to the permit conditions due to an Environment Agency initiated variation	<p>We have varied the permit as stated in the variation notice.</p> <p>This variation is required as the Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2016, regulation 34(1), to periodically review permits. As a result of that review we have identified a number of necessary changes we must make to your permit to reflect current legislation and best practice. These changes principally relate to the improvement programme specified in condition 2.4 of the permit.</p>

Aspect considered	Decision
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>A pre operational condition (PO1 in table S1.4) has been impose which requires the operator to submit a written groundwater monitoring plan for monitoring during pre-operation, operational and post decommissioning phases of the groundwater activity (A7) following the introduction of produced water from production wells FA-4 and FA-5 (which have yet to be constructed and become operational)</p>
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme.</p> <p>We have imposed an improvement programme for the reasons outlined in 'key issues' above.</p>
Emission limits	<p>We have considered emissions to air during the determination of the application. Fugitive emissions associated with the proposed activities will be at insignificant levels which are unlikely to cause negative impact on nearby receptors.</p> <p>The operator has provided environmental risk assessments and consideration in the WMP for the management of waste gas and we have found these to be satisfactory.</p> <p>ELVs equivalent parameters have been set for the following substances in Schedule 3 of the permit.</p> <p>For activity A3 (via emissions point A1)</p> <ul style="list-style-type: none"> • Gas vented (calculation method) • Hydrogen Sulphide <p>We have also required the operator to monitor emissions to air, and if trends show an increase in emissions, then the Environment Agency will require the operator to implement a plan to manage these emissions.</p> <p>Maximum discharge volume (m³/day) and rate (litres/second) are also specified for the groundwater discharge activity (A7) for re-injection of produced water.</p>
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>Condition 3.5 of the permit requires the Operator to monitor emissions to air from the storage tank vents, and to monitor changes in groundwater quality attributable to re-injection of produced water (with monitoring of discharge's volume (m³/day) and rate (litres/second)). We made these decisions in accordance with the requirements of our Onshore Oil and Gas sector guidance (August 2016) and the Groundwater Directive and to the baseline report required under the Industrial Emissions Directive.</p> <p>Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate, as required under 3.5.3 of the permit.</p>

Aspect considered	Decision
Reporting	<p>We have specified reporting in the permit.</p> <p>The reports will enable information on trends to be assessed and interventions to be carried out when required,</p> <p>We made these decisions in accordance with the requirements of our Onshore Oil and Gas sector guidance (August 2016), and the Groundwater Directive and to baseline report required under the Industrial Emissions Directive.</p>
Operator competence	
Management system	<p>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.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
Relevant convictions	<p>The Case Management System and National Enforcement Database have been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.</p>
Financial competence	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.</p>
Financial provision	<p>The financial provision arrangements satisfy the financial provisions criteria</p> <p>We are satisfied that the waste from the site has properly been characterised as non-hazardous waste and that there is no mining waste facility for extractive waste. By virtue of paragraph 9(3) of Schedule 20 to the Environmental Permitting (England and Wales) Regulations 2016 the requirements mentioned in Article 2(3) of the MWD are waived. These requirements include the need for a financial guarantee for non-hazardous waste, unless deposited in a Category A facility. So no financial guarantee can be required in respect of fluid left in the target formation.</p>
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	<p>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:</p> <p>“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 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.</p>

Aspect considered	Decision
<p>Section 108 Deregulation Act 2015 – Growth duty (continued from page 12)</p>	<p>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>
Further Legislation	
<p>Schedule 22 to the EPR 2016 – Water Framework and Groundwater Daughter Directives.</p>	<p>To the extent that it might lead to a discharge of pollutants to groundwater (a 'groundwater activity' under the EPR 2016), the permit is subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit will require the taking of all necessary measures to prevent the input of any hazardous substances to groundwater, and to limit the input of non-hazardous pollutants into groundwater so as to ensure such pollutants do not cause pollution, and satisfy the requirements of paragraph 6 of Schedule 22 and Article 6(1) Groundwater Daughter Directive.</p>
<p>Water Environment (Water Framework Directive)(England and Wales) Regulations 2003</p>	<p>Consideration has been given to whether any additional requirements should be imposed in terms of the Environment Agency's duty under regulation 3 to secure compliance with the requirements of the Water Framework Directive through (inter alia) environmental permits, but we consider that existing conditions are sufficient in this regard, and no other appropriate requirements have been identified.</p>

Consultation

The application was publicised on the GOV.UK website because of the high levels of public interest in the onshore Oil and Gas sector. The application itself is NOT high public interest.

We consulted the following organisations:

- Local authority, Environmental Protection/Health (Nottinghamshire County Council)
- Food Standards Agency
- Health and Safety Executive
- Public Health England
- Local Mineral Planning Authority (Nottinghamshire County Council)

No objections were received in the responses (provided below) from the statutory consultees whom we consulted. No objections were received in response to our GOV.UK publication of the permit variation application from members of the public.

Responses from organisations listed in the consultation section

Response received from
Public Heath England
Brief summary of issues raised
Public Health England noted that the activities being permitted were unlikely to give rise to significant concerns regarding the risk to the health of the local population.
Summary of actions taken or show how this has been covered
N/A

END OF DOCUMENT