

Permitting decisions

Variation to permit

We have decided to issue the variation for Long Clawson Oilfield operated by Island Gas Limited.

The variation number is EPR/UP3131CH/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 your permit 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 aims 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 an environmental 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.

The site for the proposed activities is located at Long Clawson A and C well sites, Melton Road, Long Clawson, Melton Mowbray, Leicestershire, LE14 4NR. The Application was duly made on 7th February 2017.

We gave the Application the reference number EPR/UP3131CH/V002. We refer to the Application as “the Application” in this document in order to be consistent.

The number we have given to the permit is EPR/UP3131CH. We refer to the permit as “the Permit” in this document.

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.

Radioactive Substances Activity Permit

This has been assessed as part of pre-application discussions for this application. A separate radioactive substances permit is not required for this operation, as the operator is not receiving or exporting produced water offsite to separate premises. Any produced water generated as part of Oil and Gas production will be re-injected on site at Long Clawson A for production support as specified in this permit variation.

Brief outline of proposed process

The installation comprises a number of oil production activities at two sites (A and C) near Long

Clawson, Melton Mowbray. Crude oil together with admixed reservoir water is pumped to surface storage tanks by pipeline. Following gravity separation within the storage tanks produced water from site A is reinjected to the reservoir via an onsite injection well. The oil and admixed water tanks are emptied as required by road tanker and transported to Gainsborough 05 or Welton Gathering Centre. Associated gas, released when the oil is depressurised, is vented to atmosphere. Electrical power for the site is provided by the grid. Site A takes up an area of 1.15 hectares and site C an area of 0.83 hectares. The total oil storage capacity is 1,287 bbls or 171.5 tonnes.

The principal releases into the environment 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 on loading.
- (c) Rainwater run-off from hardcore surfaced areas to ground.
- (d) Rainwater from hard surfaced well-site work 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.

There is one SSSI within 2 km of this installation, Holwell Mouth, but no European designated Habitats sites within 10 Km of the installation.

Mining waste is generated from routine well maintenance activities and well work overs. 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. These include hot water washing, wax dissolver treatment and acid treatment. In all cases this involves circulating fluids around the well pumping system to dissolve the deposits. These activities can be considered preventive maintenance measures, 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.

Description of the changes introduced by the variation

This is a Normal Variation to add or change the following activities.

- 1) Installation Activities, Oil storage and handling has been changed 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 1.2A(1)(h)(i) in the existing permit. The existing oil storage activities on site have not changed from those currently permitted.
- 2) A Mining Waste Operation, as defined by the Mining Waste Directive (2006/21/EC) 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 by the approved Waste Management Plan. This includes venting of gas from storage tanks, well maintenance and well workovers. Well maintenance includes hot water washing, wax dissolver treatment and acid treatment for scale removal. These are not new activities, and were previously covered by the operators operating techniques in their existing permit.
- 3) Groundwater Activities 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. The operator has submitted a hydrogeological risk assessment for the groundwater activities as part of this application. There is 1 reinjection borehole (A5z) into the Rough Rock of the Millstone Grit Group Formation, at Long Clawson A wellsite. Groundwater activities for reinjection of produced water were previously permitted as directly associated activities under the previous permit. Abstracted water from Gainsborough Beckingham is also used to supplement produced water used for reinjection, but is not listed in the permit, as not a Groundwater activity in isolation. In addition there are two discharges of site runoff to ground from non process areas via oil interceptor to soakaway. These are rainfall dependant and are listed as separate groundwater activities under Table S1.1.

Key issues of the decision

Background

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 A3.

The operator previously held an installation permit as an onshore oil and gas production facility, unloading, handling or storage of crude oil, or treatment under the Pollution Prevention and Control (England and Wales) Regulations 2000. During 2008, these permits automatically became environmental permits under the environmental permitting regime. This regime was expanded in 2010 and is now covered by the Environmental Permitting (England and Wales) Regulations 2016 (the 2016 Regulations).

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 Installation activities (oil storage, treatment and handling) have not changed at the 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 A3.

The Operator may also undertake near wellbore treatments during the lifetime of hydrocarbon production from the well, as part of routine maintenance activities. These will include hot water washing, wax dissolver treatment and acid treatment. The purpose of hot water washing is to remove the build-up of paraffin precipitates. The process involves circulating heated produced water down the well, to the production tubing above the perforations and is circulated back to the surface. Paraffin precipitates dissolved in the hot water at the surface are passed through a free phase separator and directed to on-site storage tanks. The hot water wash does not have any contact with the reservoir formation and does not pose a risk to groundwater.

The purpose of the acid wash is to remove produced water scales from production tubing which have been blocked during the production of hydrocarbons. 15% Hydrochloric acid with water is circulated down the well and across the perforated sections of the well. Acid may then be selectively pushed into the near wellbore area. The acid reacts with the minerals in the formation and all spent acid is recovered to the surface. We have considered the acid wash treatment as described in the waste management plan and concluded that it meets the ground activity exclusion as described in Schedule 22 Paragraph 3.3(b) of the Environmental Permitting Regulations.

We have imposed an improvement programme for gas management at the site in line with the sector guidance under ICs 2, 5 and 7. We are satisfied that these measures to minimise the risk of air emissions, together with condition 3.1.1 provide acceptable controls.

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 a pollutant to groundwater. The groundwater activity for this site is to re-inject produced water resulting from the extraction of hydrocarbons into the Rough Rock, as specified under A4 in Table S1.1 in Schedule 1 of the permit. The Rough Rock of the Millstone Grit Group Formation is located around 990m deep and contains groundwater.

The discharge is a direct discharge to groundwater which is prohibited under by the Water Framework Directive except under certain exemptions. One of these exemptions is:

The injection of water containing substances resulting from the operations for exploration and extraction of hydrocarbons or mining activities, and injection of water for technical reasons, into geological formations

from which hydrocarbons or other substances have been extracted or into geological formations which for natural reasons are permanently unsuitable for other purposes, provided that the injection does not contain substances other than those resulting from the above operations.

We are satisfied that this activity meets the above exemption. A permit can only be granted provided it does not compromise the achievement of any of the environmental objectives relating to groundwater in Article 4 of the Water Framework Directive. We have given detailed consideration to the proposal we are satisfied that none of the relevant environmental objectives set out in Article 4 of the Water Framework Directive will be compromised.

We have reviewed the Hydrogeological Risk Assessment (HRA) 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 additional groundwater monitoring to be carried out under IC3 to ensure that the risk of pollution from re-injection of produced water continues to be assessed throughout the lifetime of the permit.

We are satisfied that all chemicals used are either intrinsic to the operations or meet the requirements for a de minimis exclusion and are therefore not separate groundwater activities in their own right. These include biocides and corrosion inhibitors used as detailed in the HRA.

We have included the discharges of site based rainfall runoff from non process areas via interceptor to soakaway. We have set a standard suite of limits on oil and grease, chloride and pH for these low risk discharges to prevent any impact on local groundwater.

Gap Analysis

We have assessed the Operators gap analysis response which was received on 31/07/2017. We have included a number of additional Improvement conditions in response to this. In particular we have specified some improvements to the operator's management system under IC4 to review:

- i) The procedure for identifying bund fill levels, e.g. high level alarm on unmanned sites
- ii) The procedures for testing the impermeable membrane and subsequent remediation measures if required.
- iii) The monitoring procedures and testing in place to confirm the integrity of the re-injection well(s) for the lifetime of those wells, monitoring frequency, remediation measures (and reporting procedures) should the integrity monitoring results indicate that a well integrity failure has potentially occurred.

Schedule 5 responses

We requested additional information to be provided by 03/08/2017 under a schedule 5 notice issued on 02/06/2017. 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.

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 Protection • Food Standards Agency • Health and Safety Executive • Mineral Planning Authority <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 facilities 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 facilities are 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 plans which we consider are satisfactory, showing the extent of the site of the facility including emission and discharge points. The plans are included in the permit.
Site condition report	<p>The operator has provided a description of the condition of the site. 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 IC9 requiring the operator to review and update their site condition report include at least the following:</p> <ol 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 historical spillages, the chemicals involved and locations baseline soil sample results and groundwater data. We have included an improvement condition (IC9) in the permit to review the site condition report to ensure Article 22 of the Industrial Emissions Directive is complied with. <p>The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.</p>
Waste management plan	The operator has provided a waste management plan which we consider is satisfactory.

Aspect considered	Decision
Biodiversity, heritage, landscape and nature conservation	<p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. These include Holwell Mouth (SSSI) (marshland with trees and grassland habitat) and a number of local wildlife sites identified by the easimap screening report.</p> <p>We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.</p> <p>An Appendix 4 CROW assessment form has been completed for information and filed on EDRM.</p> <p>Emissions to air: This is an existing site which has been permitted since 2007 with no increases in air emissions as a result of this variation and consolidation. The emissions to air are from the oil storage tanks only on site. The SSSI is 700m south of the site boundary. No deterioration in this SSSI has been noted as a result of air quality impacts. The SSSI was last assessed by Natural England in 2014 in unfavourable condition but recovering. The H1 submitted with the application screens out all air emissions as insignificant. In addition as part of this variation and consolidation monitoring limits have been set on the point source emission points to air to minimise any impact, and a review of gas management has been requested through IC5 to further reduce any future air impacts if required.</p> <p>Emissions to water: Not applicable, there are no surface water discharges. There are two discharges to ground from rainfall runoff from non process areas of the site via an oil interceptor. We have included conditions to monitor these discharges, but as are rainfall dependant these are considered to be low risk.</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>
Operating techniques	
Operating techniques Water Quality	<p>We have reviewed the Operators Hydrogeological Risk Assessment and operating 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. 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 and surface water quality.</p> <p>IC1 requires the operator to review their site containment in order to demonstrate there is no pollution risk to surface and groundwater.</p> <p>IC3 requires the operator to install groundwater monitoring to monitor reinjection activities on site.</p> <p>IC4 requires the operator to ensure the procedures for well integrity are maintained during operation of the reinjection well A5z</p> <p>IC8 requires the operator review their surface water management and implement any agreed changes.</p>

Aspect considered	Decision
General operating techniques	<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. The operating techniques that the applicant 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. 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>
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 operators H1 assessment provided with the application. To ensure that gas management and utilisation on site is BAT in accordance with our sector guidance we have included IC5, 2, 6 and 7 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 activity will give rise to significant levels of odour. The use of the proposed ground flare, with automatic control of combustion temperature provides satisfactory mechanisms to prevent odour emissions. 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 as suitable, it will form part of the permit and the Operator must carry out the activity 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 us 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 activity 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. We have also updated permit conditions to make reference to the most modern legislation. The conditions will provide the same level of protection as those in the previous permit(s).
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	Based on the information in the application, we consider that we do not need to impose pre-operational conditions.
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 to ensure that the standards of operation for the sector are consistent and reflect those currently required by newly permitted sites (since 2013) and meet the requirements of our Onshore Oil and Gas Sector Guidance, August 2016.</p> <p>The following ICs have included in this permit to address the gap analysis responses we received from operator to demonstrate compliance with our Onshore Oil and Gas Sector Guidance, August 2016. This is explained in our key issues above.</p> <p>IC1 - Secondary and Tertiary Containment Review</p> <p>Improvement condition IC1 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.</p> <p>IC2 - Leak Detection and Repair Plan</p> <p>Improvement condition IC2 is necessary because a leak detection and repair plan is needed to manage fugitive VOC emissions from potential leak points such as seals, flanges, 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.</p> <p>IC3 - Groundwater Monitoring Plan</p> <p>Improvement condition IC3 is necessary because the operator has specified that there no groundwater monitoring boreholes at the site and there is no groundwater monitoring plan in place.</p> <p>Groundwater Monitoring is required at the site because the operator is undertaking a groundwater activities for reinjection of produced water and discharge of site surface water to ground via interceptor.</p> <p>We have included Improvement Condition IC3 which requires the operator to submit for written approval a groundwater plan. The groundwater monitoring plan, once approved, shall be incorporated into the permit as an operating technique.</p> <p>Groundwater Monitoring is necessary to help determine whether the reinjection activities are 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 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.</p> <p>IC4 - Environmental Management System Review</p> <p>Improvement condition IC4 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</p> <p>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 usual compliance audit in future</p> <p>The specific management requirements include: bund filling procedures, testing of the membrane and monitoring to confirm integrity of the re-injection well. The last point is to cover any remedial measures in event of a failure</p>

Aspect considered	Decision
	<p>IC5 - Gas management</p> <p>Improvement condition IC5 is necessary as the operator does not appear currently to be applying appropriate measures for the management of waste gas arising from their production of hydrocarbons.</p> <p>Gas management is required as the impact of releasing large quantities of uncombusted hydrocarbons leads to a significant environmental impact which can be readily mitigated using available techniques.</p> <p>We have included improvement condition 5 which requires the operator to submit for written approval a plan identifying their identified method for reducing the impact of gas emissions to atmosphere.</p> <p>Gas management is necessary to reduce the environmental and human health impacts of emitting natural gas directly to atmosphere.</p> <p>IC6 - Air emissions monitoring</p> <p>Improvement condition 6 is necessary as the site features emissions to air with the potential to cause pollution. We have applied improvement condition 6 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. Where appropriate, we will use these monitoring results to set appropriate assessment levels or compliance limits for the operator to comply with in future.</p> <p>We consider this condition necessary as although the volume of each individual emission is comparatively small, the quality of combustion employed in each case can significantly alter the levels of various pollutants ultimately present within the emission. By requiring ongoing 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.</p> <p>IC7 - Vapour recovery</p> <p>Improvement condition IC7 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.</p> <p>Vapour recovery is necessary both for safety reasons and also to reduce the environmental impacts of storing, loading, transporting and unloading hydrocarbons.</p> <p>IC8 - Surface water management</p> <p>Improvement condition IC8 is required because the operator has indicated that rainwater is not always being dealt with in accordance with requirements necessary to protect the environment from uncontrolled contaminated discharges of site surface water.</p> <p>The development of a plan to show how rainfall is managed to ensure the environment is not compromised, will clarify how the requirements are being met and how the environment is being protected.</p> <p>IC9 - Site Condition Report Review</p> <p>Improvement Condition IC9 is necessary because the operator is required to produce a Site Condition Report 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 Industrial Emissions Directive.</p> <p>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.</p>

Aspect considered	Decision
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>Gas vented (calculation method)</p> <p>Hydrogen Sulphide</p> <p>For discharges to ground</p> <p>Oil and Grease</p> <p>Chloride</p> <p>pH</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. Condition 3.5 of the permit requires the Operator to monitor emissions to air from the storage tank vents.</p> <p>We also require monitoring of rate and volume of produced water reinjected along with concentrations and volumes of chemicals added to the produced water prior to reinjection. The soakaway discharge at Long Clawson A and C are also required to be monitored for pH chloride and oil and grease. In addition following approval of the groundwater monitoring and the surface water management plan under IC3 and IC8, we will also require additional groundwater and surface water monitoring under S3.5 under the permit.</p> <p>The Operator will keep records of the data collected, which must be submitted to the Environment Agency on a regular basis.</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> <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>
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>
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>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.</p>

Aspect considered	Decision
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.</p> <p>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. 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	
Schedule 22 to the EPR 2016 – Water Framework and Groundwater Daughter Directives	<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>
Water Environment (Water Framework Directive) (England and Wales) Regulations 2003	<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
- Food Standards Agency
- Health and Safety Executive
- Mineral Planning Authority

No objections were received from the all the Statutory consultees whom we consulted. 1 objection was received from a member of the public. This has been dealt with as summarised below.

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

None

Representations from individual members of the public.

Brief summary of issues raised
1 objection from a member of the public on the application
Summary of actions taken or show how this has been covered
The public objection relates to opposition to fracking at the site. This is an existing oil and gas producing site and no hydraulic fracturing takes place. We have excluded this activity in the mining waste activities permitted to make this clear in the new permit.