

Permitting decisions

Variation to permit

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

The variation number is EPR/UP3533ZY/V003

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 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.

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 at Rempstone oilfield comprises of oil production activities at two sites; Rempstone A wellsite and Rempstone B wellsite which are both located near the village of Rempstone, Leicestershire. The Rempstone oilfield sites make up an area of 1.4 hectares (Rempstone A is 0.7 hectares in area and Rempstone B is 0.65 hectares in area) and are 940 meters in distance apart. Each wellsite has a single actively producing oil extraction well (well A at Rempstone A and well B at Rempstone B). The total produced fluids storage capacity of the sites is 166 tonnes, 1245 barrels (bbls) or 198 cubic metres (m³). This is split across the sites as follows:

- Rempstone wellsite A storage : 735 bbls, 98 tonnes or 117 m³ (via storage tanks T501 and T502)
- Rempstone wellsite B storage: 510 bbls, 68 tonnes or 81 m³ (via storage tank T528)

Produced water and oil are extracted from the reservoir (Rempstone Sandstone formation, Lower Namurian period, part of the Widmerpool sub-basin) and is pumped directly to these bunded oil storage tanks. No re-injection of produced water takes place at either Rempstone A or B.

The storage tanks are periodically emptied by road tanker, with the comingled production fluids (a mixture of produced water and oil) transferred by road tanker for treatment/separation and re-injection at an appropriate processing facility. Rempstone well-sites A and B each have a vent stack which allow gas entrained within the produced fluid to escape to atmosphere from the oil storage tanks. Power is supplied to each well-site by diesel generators.

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. 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 on loading.
- (c) Rainwater run-off from non-process well-site areas to ground via oil interceptor and soakaway.
- (d) Contaminated rainwater from well cellars and containment systems/bunds is removed by tanker for off-side treatment.
- (e) Engineering waste resulting from maintenance work is removed for disposal at a licensed waste disposal facility.

There are no sites of special scientific interest (SSSI) or European designated sites within proximity of the existing Rempstone oilfield sites.

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 1.2A (1) (h) (i) in permit EPR/HP3230MB (issued 25/05/2007), and then varied to a low impact installation (issued 03/02/2012). The existing oil storage activities on site at Rempstone well-sites A and B have not changed from those currently permitted.

2. Add a 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 by the approved Waste Management Plan. This includes venting of gas from storage tanks, well maintenance and well work overs. Well maintenance includes hot water washing, wax dissolver treatment and acid treatment for scale removal. These are not new activities.
3. Add two groundwater activities, as defined by the Groundwater Directive and Schedule 22 of the Environmental Permitting (England and Wales) Regulations 2016 as amended, for the discharge of treated site surface water to ground via oil interceptor and soakaway (one discharge at Rempstone well-site A and one discharge at Rempstone well-site B).

The original permit was issued for an Industrial Emission activity as defined by the Industrial Emissions Directive and Part 2 Schedule 1.2 of the Environmental Permitting (England and Wales) Regulations 2016, as amended, relating to the loading, unloading, handling and storage of crude oil.

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 A3.

The site was previously regulated by an installation permit (issued 22/05/2007) 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. The site's permit was at this point held by Star Energy Oil and Gas Limited.

During 2008 these permits automatically became environmental permits under the environmental permitting regime. This regime was expanded in 2010, being covered by the Environmental Permitting (England and Wales) Regulations 2010. The site's permit was varied on the 03/02/2012 to account for a change of the operator's registered company address. The permit was later transferred on 27/09/2012 to Island Gas Limited, with the permit varied to a low impact installation on the 09/01/2013. The Environmental Permitting (England and Wales) Regulations 2010 are 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 A2.

The operator may also undertake near wellbore treatments during the lifetime of hydrocarbon production from the wells, as part of routine preventative well maintenance activities, which includes hot water washing, wax dissolver treatment and acid treatment.

We have reviewed and agreed with the assessments that have been provided in the waste management plan and the application's supporting information (environmental risk assessment and de-minimis assessment, which include details of these operations and quantities), that determine that the treatments meet de-minimis criteria and will not need groundwater activity permits (as we have concluded that all these activities meet the ground activity exclusion as described in Schedule 22 Paragraph 3.3 (b) of the Environment Permitting Regulations). None of the routine well maintenance activities involve the pressurization of the circulating fluids in order to penetrate the reservoir.

The purpose of hot water washing is to remove/dissolve the build-up of paraffin precipitates/wax deposits from subsurface rods, tubulars and pipework. The process involves circulating heated water (either potable or produced water, heated to a temperature of 90°C) down the well, to the production tubing above the perforations and is circulated back to the surface to the storage tank. The circulated hot water remains within the well casing and tubulars, and will potentially contact the surface of the producing reservoir. The removed/dissolved paraffin precipitates/wax deposits return to the oil phase, and the water returned to the surface is then exported offsite to an appropriate treatment facility for re-injection.

The purpose of wax dissolver treatment is to remove deposits produced by certain crude oils (such as asphaltenes and waxes) from tubulars, rods and pipework that are not dissolved when using hot water. In these circumstances a wax dissolver is used as the dissolving liquid. The circulated fluid returns to the oil phase.

The purpose of the acid wash is to remove produced water scales (mainly calcium carbonate) from tubing, rods, pumps and casing perforations which have been blocked during the production of hydrocarbons. Typically 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 (where the neutralised water is stored with produced fluids then exported off site to an appropriate treatment facility for re-injection).

Despite the routine preventative well maintenance measures taken above, there will instances when a well work over is required and a work over rig is temporarily installed on site to work over the well. These operations may generate extractive mining waste. We have varied the permit to allow the operator to carry out a mining waste operation involving the management of extractive waste from production activities (not involving a waste facility). The operation will include the management of extractive waste generated by well work over.

We have imposed an improvement programme for has management at the site in line with the sector guidance under improvement conditions (ICs) 2, and 4. We are satisfied that these measures to minimise risk of air emissions together with condition 3.1.1 provide acceptable controls.

If the operator wishes to carry out different or additional activities not covered by this permit, a further permit 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 waste management plan (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 any other discharge or activity that might lead to a direct or indirect input of a pollutant to groundwater.

We have included the discharge of site based rainfall run off from non-process areas to ground via soakaway and oil interceptor as two groundwater activities in the permit (one discharge at Rempstone A well-site and one at Rempstone B well-site).

We are satisfied that the potential risks to groundwater have been identified and addressed through mitigation measures and controls specified in this permit. These two groundwater activities are specified under activity references A4 and A5 in table S1.1, in Schedule 1 of the permit.

Interim discharge parameter limits for volume, chloride, pH, sodium and total petroleum hydrocarbons are included in Table S3.2 of the permit to prevent any potential impact on underlying groundwater in the Secondary A aquifer.

We have also included an Improvement Condition (IC3) for the operator to submit a groundwater monitoring plan to monitor the quality of groundwater. Groundwater monitoring will help determine whether the discharges to ground are affecting the quality of groundwater (and confirm whether satisfactory measures are in place to prevent pollution of groundwater). The groundwater monitoring plan, once approved will be incorporated into the permit as an operating technique.

We have also included an Improvement Condition (IC7) which requires the operator to review their site surface water management and submit a Surface Water Management Plan to show how rainfall is managed to ensure the environment is being protected. As part of this Improvement Condition the operator will review the interim discharge parameter limits in the permit to clarify how the environment is being protected. The operator shall monitor the quality of the soakaway discharges for a suite of a parameters that could be present in the discharges for a duration and frequency approved in writing by the Environment Agency.

The operator will use the data collected to carry out a numerical risk assessment and derive site specific quality limits for the discharges that are protective of the groundwater environment and outline how these will be implemented in the Surface Water Management Plan.

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 was received on 25/09/2017. We have included a number of improvement conditions (ICs) in response to this.

Schedule 5 responses

We requested additional information to be provided by 09/07/2018 under a schedule 5 notice issued on 06/06/2018. A response was received on 04/07/2018. 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

The site had historic improvement conditions (ICs) 1 to 12 within the original site permit EPR/HP3239MB (issued 22/05/2007). All of the twelve historic ICs have previously been completed. Based on the outcomes of the onshore oil and gas re-permitting variation determination and gap analysis response for the site, we have imposed the following new improvement conditions within the varied permit (ICs 1 to 8):

1.) Improvement condition: Secondary and tertiary containment (as IC1)

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.

2.) Improvement condition: Leak detection and repair (as IC2)

Improvement condition IC2 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 IC3)

Improvement condition IC3 is required because there is currently no groundwater monitoring plan in place for the existing groundwater activities (activities A4 and A5). The groundwater monitoring plan, once approved, shall be incorporated into the permit as an operating technique.

Groundwater monitoring is necessary to help determine if activities A4 and A5 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 (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.

4.) Improvement condition: Updated written Environment Management System (as IC4)

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. 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 IC5).

Improvement condition IC5 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 (well A and well B). The management system will be subject to the usual compliance audits in the future.

6.) Improvement condition: Air emissions monitoring (as IC6)

Improvement condition IC6 is necessary as the site features emissions to air with the potential to cause pollution. We have applied improvement condition IC6 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 IC5 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: Surface water management plan (as IC7)

Improvement condition IC7 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. The development of a plan to show how rainfall is managed to ensure the environment is not compromised, and will clarify how the requirements are being met and how the environment is being protected.

8.) Improvement condition: Site condition report (as IC8)

Improvement condition IC8 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 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 (Nottinghamshire County Council and Rushcliffe Borough Council) • Food Standards Agency • Health and Safety Executive • Public Health England • Local Mineral Planning Authority (Nottinghamshire 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 plans which we consider are 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 (IC8) 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	The operator has provided a waste management plan which we consider is satisfactory.
Biodiversity, heritage, landscape and nature conservation	The application is not within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.
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 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>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p> <ul style="list-style-type: none"> • IC1 requires the operator to review their site containment in order to demonstrate there is no pollution risk to surface and groundwater. • IC7 requires the operator to review their surface water management and implement any agreed changes.

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.</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. 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 variation application). To ensure that gas management on site is BAT in accordance with our sector guidance we have included IC2, IC4, IC5 and IC6 to review leak detection, gas management and emissions and vapour recovery during unloading in order to agree that the operator'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 sector.</p>
Odour management	<p>We have considered potential odour emissions from the activities 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. 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>

Aspect considered	Decision
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(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>
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 the 'key issues' section 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 points A1 and A2):</p> <ul style="list-style-type: none"> • Gas vented (calculation method) • Hydrogen Sulphide <p>For activities A4 and A5, it is considered that the numeric limits described below will prevent significant deterioration of receiving waters. We have imposed these limits because either a relevant environmental quality or operational standard requires this.</p> <p>Discharge limits for the discharge of site surface water to ground through a soakaway (A4 via outlet WD1 and A5 via outlet WD2) have been set for the following parameters in Schedule 3, Table S3.2 of the permit:</p> <ul style="list-style-type: none"> • Volume – 1.0 m³/day • Chloride – 150 milligrams per litre (mg/l) (maximum) • Sodium – 200 mg/l (maximum) • pH – 6.0 (minimum) to 9.0 (maximum) • Total Petroleum Hydrocarbons – 2.0 mg/l (maximum) <p>The Total Petroleum Hydrocarbon limit has been derived based on the treatment specification of the oil interceptor within the application documents. The limit for sodium has been set at the Drinking Water Standard (DWS) which is the relevant environmental quality standard to protect the water</p>

Aspect considered	Decision
	<p>quality in the principal aquifer and chloride has been set below the Drinking Water Standard. These discharge limits have been set to prevent the input of these pollutants into groundwater and prevent the deterioration of underlying groundwater. The pH range is typical of the pH range for groundwater.</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.</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 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>
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>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>

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>
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/Health (Nottinghamshire County Council and Rushcliffe Borough 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.

Response received from
Rushcliffe Borough Council (Environmental Health)
Brief summary of issues raised
<p>I refer to your recent consultation regarding the proposed variation to the permit for Island Gas Limited.</p> <p>I have considered the information within the variation application including the Environmental Risk Register. I note that the applicant has advised that emissions of noise and odour will be insignificant provided the monitoring protocols are in place. Have any assessments on noise and odour been undertaken in order to demonstrate this measurement of insignificance. If so can these be forwarded onto this department for review. In addition the applicant has made reference to the monitoring protocols to control noise and odour emissions. Can the monitoring protocols be forwarded onto this department for review?</p>
Summary of actions taken or show how this has been covered
<p>As discussed in the above decision checklist, the aspects of odour management and noise management have been considered during the determination as follows:</p> <p><u>Odour management</u></p> <ul style="list-style-type: none"> • We have considered potential odour emissions from the activities 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. • 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 activity in accordance with the approved techniques. <p><u>Noise management</u></p> <ul style="list-style-type: none"> • 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. • 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>Our National Incident Reporting System (NIRS) has confirmed that no pollution incidents have been Reported and/or recorded for either of the two well-sites at Rempstone Oilfield. Compliance conditions for odour and noise were also specified within the site's previous permit (EPR/HP3239MB, issued 22/05/2007), with no reported breaches.</p>

Response received from
Nottinghamshire County Council
Brief summary of issues raised
The Planning Policy and Development Management Team area not aware of any noise or other amenity issues at this site and have not taken any enforcement action.
Summary of actions taken or show how this has been covered
N/A

END OF DOCUMENT