

Notice of variation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Rathlin Energy (UK) Limited

West Newton B Wellsite

Crook Lane

West Newton

East Riding of Yorkshire

HU11 4LP

Variation application number

EPR/DB3503HL/V004

Permit number

EPR/DB3503HL

West Newton B Wellsite

Permit number EPR/DB3503HL

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The schedules specify the changes made to the permit.

This variation allows use of oil based drilling muds in accordance with the revised waste management plan.

We consider that in reaching our decision to vary the permit we have taken into account all relevant considerations and legal requirements. We are satisfied that the permit will ensure that a high level of protection is provided for the environment and human health and that the activities will not give rise to any significant pollution of the environment or harm to human health.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

| Status log of the permit | | |
|---------------------------------|-------------------------|---|
| Description | Date | Comments |
| Application received | Duly made 15/09/2015 | Application for drilling two oil and gas exploratory boreholes. |
| Additional information received | 30/10/2015 | Additional information on flare |
| Additional information received | 11/12/2015 | Response on 1 st Schedule 5 Notice: Waste Management Plan Exploratory Operations Drilling products Exploratory Operations |
| Additional information received | 07/01/2016 | Revised site plan showing monitoring points |
| Additional information received | 18/03/2016 | Response on 2 nd Schedule 5 Notice: Non-Technical Summary Exploratory Operations Environmental Risk Assessment Exploratory Operations Flare calculation method |
| Additional information received | 30/03/2016 | Revised on modelling parameters of the flare: PW well test modelled calculations on temperature, exit velocity, flame length and noise Revised flare calculations |
| Additional information received | 13/04/2016 | Revised Waste management Plan (revision 4) containing updates on: Air Dispersion Modelling and report Odour Management Plan Noise Impact Assessment Flare specification documents for drill stem test only. |

| Status log of the permit | | |
|--|-------------------------|--|
| Description | Date | Comments |
| | | Revised Non-Technical Summary |
| Additional information received | 25/04/2016 | Well test operation using flare work instruction |
| Additional information received | 24/06/2016 | Interceptor discharge and drainage layout plan Drainage design manual |
| Additional information received | 30/06/2016 | Revised interceptor and drainage layout plan Revised Environmental Monitoring Plan |
| Permit determined EPR/DB3503HL | 26/07/2016 | Permit issued to Rathlin Energy (UK) Limited |
| Application EPR/DB3503HL/V004 (variation and consolidation) | Duly made 07/05/2020 | Application to vary and update the permit to modern conditions. |
| Additional information received | 21/12/2020 | Response to 1 st & 2 nd Schedule 5 Notices: Revised Odour Management Plan Revised Vapour Recovery Plan Revised Surface Water Management Plan Revised Waste Gas Management Plan Air Quality Assessment of Wellsite Shrouded Flare Stack Emissions Report Schedule 5 Action Tracker |
| Additional information received | 09/02/2021 | Response to 3 rd Schedule 5 Notice: Revised Schedule 5 Action Tracker |
| Variation determined EPR/DB3503HL | 04/05/2021 | Notice of variation issued |
| Notified of change of Registered Office | 31/10/2022 | Registered office changed to Suite 1, 7th Floor 50 Broadway, London, SW1H 0BL |
| Variation issued EPR/DB3503HL/V003 | 15/11/2022 | Varied permit issued to Rathlin Energy (UK) Limited |
| Application EPR/DB3503HL/V004 (variation and consolidation) | 20/03/2023 | Application to vary the permit to add use of oil based drilling muds. |
| Additional information received | 24/08/2023 | Submission of revised waste management plan. |
| Variation determined EPR/DB3503HL | 22/09/2023 | Varied permit issued to Rathlin Energy (UK) Limited. |

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/DB3503HL

Issued to

Rathlin Energy (UK) Limited ("the operator")

whose registered office is

Suite 1, 7th Floor

50 Broadway

London

SW1H 0BL

company registration number 06478035

to operate a regulated facility at

West Newton B Wellsite

Crook Lane

West Newton

East Riding of Yorkshire

HU11 4LP

to the extent set out in the schedules.

The notice shall take effect from 22/09/2023.

| Name | Date |
|----------------|------------|
| Claire Roberts | 22/09/2023 |

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of the application made by the operator:

Table S1.1 as referenced by condition 2.1.1 is amended to include reference to oil based drilling muds and to the revised waste management plan.

Table S1.2 as referenced by conditions 2.3.1 and 2.3.2 is amended to include the revised waste management plan and remove a reference to the previous version.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/DB3503HL

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/DB3503HL/V004 authorising,

Rathlin Energy (UK) Limited ("the operator"),

whose registered office is

Suite 1, 7th Floor

50 Broadway

London

SW1H 0BL

company registration number 06478035

to operate an installation, a mining waste operation and a water discharge activity at

West Newton B Wellsite

Crook Lane

West Newton

East Riding of Yorkshire

HU11 4LP

to the extent authorised by and subject to the conditions of this permit.

| Name | Date |
|----------------|------------|
| Claire Roberts | 22/09/2023 |

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this

permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

- 2.3.3 The operator shall review the waste management plan every five years from the date of initial approval.

2.4 Pre-operational conditions

- 2.4.1 There shall be no incineration of hazardous extractive waste until the measures specified in PO1 and PO2 of schedule 1 table S1.3 have been completed and the operator has received written approval from the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Subject to any condition of this permit, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systemic approach of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in table S3.1;
 - (b) groundwater specified in table S3.2;
 - (c) surface water monitoring specified in tables S3.3, S3.4 and S3.5;
 - (d) ambient air monitoring specified in table S3.6; and
 - (e) process monitoring specified in table S3.7.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 The operator shall carry out:
 - (a) regular calibration, at an appropriate frequency, of systems and equipment provided for carrying out any monitoring and measurements necessary to determine compliance with these conditions; and
 - (b) regular checking, at an appropriate frequency, that such systems and equipment are serviceable and correctly used.
- 3.5.4 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 If required by the Environment Agency, the operator shall
 - (a) take such samples and conduct such measurements, tests, surveys, analyses and calculations, including environmental measurements and assessments, at such times and using such methods and equipment as the Environment Agency may reasonably specify and
 - (b) keep samples, provide samples, or dispatch samples for tests at a laboratory, as the Environment Agency reasonably specifies, and ensure that the samples or residues thereof

are collected from the laboratory within three months of receiving written confirmation that testing and repackaging in accordance with the relevant legislation are complete.

Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3, S3.4 and S3.5 unless otherwise agreed in writing by the Environment Agency.

- 3.5.6 The operator shall, prior to, or on commencement of flaring, and monthly thereafter; analyse the flare feed gas. The analysis shall include oxides of nitrogen, carbon monoxide, carbon dioxide, total volatile organic compounds (VOCs), benzene, toluene, ethylbenzene, M- and P- xylene, O- xylene, hydrogen sulphide, hydrocarbons C1 to C15. A report of this analysis shall be submitted to the Environment Agency within 28 days of completion of the analysis.
- 3.5.7 The operator shall by calculation determine the emissions of the substances identified in table S3.1, based on the most recent feed gas composition analysis, feed gas flow rate and combustion efficiency of the flare.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2 ; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately” or “without delay”, in which case it may be provided by telephone.

Schedule 1 – Operations

| Table S1.1 activities | | |
|------------------------------|---|--|
| Activity reference | Description of specified activity | Limits of specified activity |
| A1 Mining waste operation | <p>A mining waste operation for the management of extractive waste from prospecting for mineral resources, not involving a waste facility.</p> <p>The management of extractive waste generated by well abandonment.</p> | <p>Permitted waste types shall conform to the description in the approved Waste Management Plan.</p> <p>The activities shall be limited to the following extractive waste types – water and oil based drilling muds, drill cuttings, excess solidified cement, formation water, clays and sand, spent hydrochloric acid and calcium chloride, natural gas, nitrogen and carbon dioxide.</p> <p>The activities shall be limited to those described in the approved Waste Management Plan - RE-EPRA-WNB-WMP-005, Revision 7, August 2023.</p> <p>Drilling additives shall be approved in writing by the Environment Agency prior to use.</p> <p>The activities shall be limited to waste arising from the prospecting for oil and/or gas, including well stimulation.</p> <p>The storage of extractive waste is limited to temporary storage in secure containment as part of the collection and transportation of waste from the site.</p> |
| A2 Gas flare | <p>Schedule 1 section 5.1 (a)</p> <p>The incineration of hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 10 tonnes per day as listed in Schedule 1 section 5.1 (a) of the EP Regulations</p> | <p>Limited to flaring of waste gas from onshore oil and gas exploration activities, produced from drill stem testing, well clean up and extended well test activities.</p> <p>Flaring of gas shall be limited to well clean up and well testing activities only.</p> <p>Flaring of gas shall be limited to a maximum gas input of 8640Nm³/hour reference conditions 273K and 101.3 kPa</p> <p>The procedure for operating the flare shall conform to that described in the documents “Operation of Combustion Units during Well Testing Operations Work Instruction” RE-04-034 April 2020, and “Waste Gas Management Plan” RE-EPRA-WNB-WGMP-010 Revision 1</p> <p>Thereafter gas can only be flared where it is necessary to do so either as a safety measure or due to maintenance of surface equipment, unless otherwise approved in writing by the Environment Agency.</p> <p>There shall be no venting except where it is</p> |

| Table S1.1 activities | | |
|------------------------------|---|---|
| Activity reference | Description of specified activity | Limits of specified activity |
| | | <p>necessary for safety reasons, or is a consequence of inert gas lifting carried out as described in Waste Gas Management Plan" RE-EPRA-WNB-WGMP-010 Revision 1</p> <p>Venting as a result of inert gas lifting shall be limited to a maximum of 45 minutes per hour.</p> |
| A3 Surface water activity | Discharge of rainfall dependent surface water run off via a discharge point | <p>The discharge shall be made via a Class 1 SPEL oil-water separator designed, manufactured and maintained according to European Standard BS EN 858-1 to surface water.</p> <p>The discharge points shall be limited to those described in table S3.4</p> <p>No discharge shall take place when potentially polluting substances are stored on site (with the exception of fuel stored as part of trailer mounted water sampling equipment and fuel stored to enable power supply to the site).</p> <p>No discharge shall take place when mining waste or fuels are stored on site (with the exception of fuel stored as part of trailer mounted water sampling equipment and fuel stored to enable power supply to the site).</p> <p>No discharge shall take place when well drilling, completion, testing, workover, or abandonment activities are taking place on site.</p> <p>The discharge shall be managed as described in the operating technique Surface Water Management Plan referenced in table S1.2.</p> |

| Table S1.2 Operating techniques | | |
|---|---|---------------|
| Description | Parts | Date Received |
| Non-Technical Summary | RE-EPRA-WNB-NTS-003, Revision 5, April 2020 | 27/04/2020 |
| Site condition Report | RE-EPRA-WNB-SCR-006, Revision 3, April 2020 | 27/04/2020 |
| Recording Flare Stack Temperature / Incinerator Temperature Data Work Instruction | RE-04-020, Revision 4, March 2020 | 27/04/2020 |
| Management of Scrubber Reactants and Scavengers Work Instruction | RE-02-021, Revision 6, April 2020 | 27/04/2020 |
| Operation of Combustion Units During Well | RE-04-032, Revision 6, April 2020 | 27/04/2020 |

| Table S1.2 Operating techniques | | |
|---|---|----------------------|
| Description | Parts | Date Received |
| Testing Operations Work Instruction | | |
| Capping of Flexible Hoses Work Instruction | RE-04-035, Revision 1, March 2020 | 27/04/2020 |
| Purging of Well Test Equipment Work Instruction | RE-04-034, Revision 1, March 2020 | 27/04/2020 |
| Odour Management Plan | RE-EPRA-WNB-OMP-009, Revision 1, December 2020 | 21/12/2020 |
| Vapour Recovery Plan | RE-EPRA-WNB-VRP-011, Revision 4, December 2020 | 21/12/2020 |
| Surface Water Management Plan | RE-EPRA-WNB-SWMP-013, Revision 5, December 2020 | 21/01/2021 |
| Stack Emission Testing Report | CRO-1621, Version 1, 8 th June 2018 | 21/12/2020 |
| Waste Gas Management Plan | RE-EPRA-WNB-WGMP-010, Revision 1, December 2020 | 21/12/2020 |
| Air Quality Assessment | LSO200228, December 2020 | 21/12/2020 |
| Variation Application EPR/DB3503HL/V004 Waste Management Plan | RE-EPRA-WNB-WMP-005, Revision 7, 24/08/2023 | 24/08/2023 |

| Table S1.3 Pre-operational measures | |
|--|---|
| Reference | Requirement |
| PO 1 | <p>At least 4 weeks prior to commencement of the gas flaring activity the operator shall submit to the Environment Agency for approval a written Environmental Management and Monitoring Plan (EMMP) which will include, but is not limited to:</p> <ul style="list-style-type: none"> • details of the baseline air quality study undertaken prior to activities commencing; • details of the ambient air monitoring programme proposed for during and after the period of gas flaring; <p>and shall obtain the Environment Agency's written approval to the EMMP.</p> |
| PO 2 | <p>The Operator shall provide for approval a method for calculating the emissions from the flare as required by condition 3.5.7. and obtain the Environment Agency's written approval to the method.</p> |
| PO 3 | <p>At least 2 weeks prior to commencement of permitted activities the operator shall submit to the Environment Agency a report that details the as built monitoring borehole designs and describes the baseline groundwater quality sampling for the site. The chemical sampling suite presented in Table S3.2 of this permit shall be used for the baseline groundwater quality sampling programme.</p> |

Schedule 2 – Waste types, raw materials and fuels

Non-extractive wastes are not accepted as part of the permitted activities and there are no restrictions on raw materials or fuel under this schedule

Schedule 3 – Emissions and monitoring

| Table S3.1 Point source emissions to air – emission limits and monitoring requirements | | | | |
|--|---|---|---|---|
| Emission point ref. & location | Parameter | Limit (including unit) | Monitoring frequency | Monitoring standard or method |
| A1 gas flare as shown on site plan in Schedule 7 | Oxides of nitrogen | - | Monthly | As approved in writing with the Environment Agency in accordance with PO2 |
| | Carbon monoxide | - | Monthly | As approved in writing with the Environment Agency in accordance with PO2 |
| | Carbon dioxide | - | Monthly | As approved in writing with the Environment Agency in accordance with PO2 |
| | Total volatile organic compounds (VOCs) | - | Monthly | As approved in writing with the Environment Agency in accordance with PO2 |
| | Methane concentration in flare feed gas | - | Prior to or on commencement of flaring and monthly thereafter | As approved in writing with the Environment Agency |
| | Flare gas feed rate | 8640Nm ³ /hour reference conditions 273K and 101.3 kPa | Continuous | As approved in writing with the Environment Agency |
| | Flare combustion temperature | - | Continuous | BS 1041-4:1992 |

| Table S3.2 Groundwater monitoring requirements | | | | |
|--|---|--|---------------------------------|----------------------|
| Location or description of point of measurement | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Groundwater monitoring borehole 1 and borehole 2 as shown on site plan in Schedule 7 | Mercury and its compounds expressed as mercury (Total Hg) | a) Prior to commencement of any operations: sample once every 4 weeks; b) During periods of testing: sample once every 4 weeks with first sample collected on the eve of testing; c) Outside of testing: sample once every 3 months unless otherwise agreed in writing with the Environment Agency | BS ISO 5667 and condition 3.5.4 | |
| | Cadmium and its compounds expressed as cadmium (Total Cd) | | | |
| | pH | | | |
| | BOD | | | |
| | Inorganic determinants Turbidity, Total Suspended Solids, Alkalinity, Hardness, Sulphate, Chloride, Nitrate, Calcium, Magnesium, Potassium, Sodium, Iron and Manganese | | | |
| | Organic determinants BTEX including MTBE by GC/MS, Total Petroleum hydrocarbons (speciated TPH Working Group criteria (UK) aromatic and aliphatic banding) and Methane | | | |
| | Groundwater level | | | |

| Table S3.3 Point Source emissions to water (other than sewer) and land – emissions and monitoring requirements | | | | | | |
|--|---------------------------|--|------------------------------------|--------------------------|-----------------------------|----------------------|
| Location or description of point of measurement | Parameter | Limit (including unit) | Reference | Limit of effective range | Monitoring frequency | Compliance statistic |
| Discharge to surface water of trade effluent consisting of rainfall dependent surface water run off | Visible oil and/or grease | No significant trace present so far as is reasonably practicable | Instantaneous (visual examination) | Visual examination | Whenever a discharge occurs | No significant trace |

| Table S3.4 Discharge point | | | |
|---|--|----------------------------|-------------------------------------|
| Location or description of point of measurement | Discharge point | Discharge point NGR | Receiving water/ Environment |
| Trade effluent consisting of rainfall dependent surface water run off | Wellsite discharge location shown on Interceptor discharge plan RE-EPRA-WNB-SWMP-013, Revision 5, December 2020 | TA 20382 37235 | Drainage pipe |
| | Surface water discharge location shown on Interceptor discharge plan RE-EPRA-WNB-SWMP-013, Revision 5, December 2020 | TA 20351 37482 | L Dyke |

| Table S3.5 Monitoring Point | | | |
|---|------------------------|-----------------------------|--|
| Location or description of point of measurement | Monitoring type | Monitoring point NGR | Monitoring point reference |
| Trade effluent consisting of rainfall dependent surface water run off | Effluent sampling | TA 20383 37227 | 'Effluent sample point' as shown on site plan in Schedule 7. |

| Table S3.6 Ambient air monitoring requirements | | | | |
|--|---|--|---|--|
| Location or description of point of measurement | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Locations specified in Agreed EMMP specified in table S1.2 | Parameters specified in approved EMMP specified in table S1.2 | Frequencies specified in approved EMMP specified in table S1.2 | In accordance with condition 3.5.1 and EMMP specified in table S1.2 | Locations specified in Agreed EMMP specified in table S1.2 |

| Table S3.7 Process monitoring requirements | | | | |
|--|--|-------------------------------|---|-----------------------------|
| Emission point reference or source or description of point of measurement | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Gas flare | Flare gas feed rate | Continuous | As approved in writing with the Environment Agency. | N/A |
| Gas flare | Flare combustion temperature | Continuous | BS 1041- 4:1992 | N/A |
| Gas flare | Video feed with a screen time display of flare | Continuous while in operation | As approved in writing with the Environment Agency | N/A |

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

| Table S4.1 Reporting of monitoring data | | | |
|---|--|--|---------------------------------------|
| Parameter | Emission or monitoring point/reference | Reporting period | Period begins |
| The following emissions to air parameters as required by condition 3.5.1 Oxides of Nitrogen Carbon Monoxide Total volatile organic compounds including methane | Gas flare | Within 1 month of commencing flaring and then every month thereafter until cessation of flaring activities | Date of permit issue |
| Flare temperature | Gas flare | As required by the Environment Agency | Date of permit issue |
| Video feed of flare during operations | Gas flare | As required by the Environment Agency | Date of permit issue |
| Ambient air monitoring Parameters as required by condition 3.5.1 | 4 monitoring locations marked on site plan in schedule 7 | Every 6 months | Date of permit issue |
| Groundwater monitoring | Groundwater monitoring borehole 1 and borehole 2 as shown on site plan in Schedule 7 | As set out in Table S3.2 under monitoring frequency | Date of permit issue |
| Table S1.2 – Parameters as listed in the operating technique Surface Water Management Plan | As listed in the operating technique – Surface Water Management Plan | Quarterly Report to be submitted within 28 days | 1 January, 1 April, 1 July, 1 October |

| Table S4.2 Reporting forms | | |
|--|---|----------------------|
| Media/parameter | Reporting format | Date of form |
| Air | Form Air 1 or other form as agreed in writing by the Environment Agency | Date of permit issue |
| Groundwater quality and level | Form Groundwater 1 or other form as agreed in writing by the Environment Agency | Date of permit issue |
| Parameters as listed in the operating technique Surface Water Management Plan specified in Table S1.2 | Form as agreed in writing by the Environment Agency | Date of agreement |
| Visible oil or grease as specified in Table S3.3 | Form as agreed in writing by the Environment Agency | Date of agreement |
| Other performance indicator | Form as agreed in writing by the Environment Agency | Date of agreement |

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

| | |
|--------------------------------|--|
| Permit Number | |
| Name of operator | |
| Location of Facility | |
| Time and date of the detection | |

| | |
|---|--|
| (a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution | |
| To be notified within 24 hours of detection | |
| Date and time of the event | |
| Reference or description of the location of the event | |
| Description of where any release into the environment took place | |
| Substances(s) potentially released | |
| Best estimate of the quantity or rate of release of substances | |
| Measures taken, or intended to be taken, to stop any emission | |
| Description of the failure or accident. | |

| | |
|---|--|
| (b) Notification requirements for the breach of a limit | |
| To be notified within 24 hours of detection unless otherwise specified below | |
| Emission point reference/ source | |
| Parameter(s) | |
| Limit | |
| Measured value and uncertainty | |
| Date and time of monitoring | |

| | |
|---|--|
| (b) Notification requirements for the breach of a limit | |
| To be notified within 24 hours of detection unless otherwise specified below | |
| Measures taken, or intended to be taken, to stop the emission | |

| | |
|---|----------------------------|
| Time periods for notification following detection of a breach of a limit | |
| Parameter | Notification period |
| | |
| | |
| | |

| | |
|--|--|
| (c) Notification requirements for the breach of permit conditions not related to limits | |
| To be notified within 24 hours of detection | |
| Condition breached | |
| Date, time and duration of breach | |
| Details of the permit breach i.e. what happened including impacts observed. | |
| Measures taken, or intended to be taken, to restore permit compliance. | |

| | |
|--|--|
| (d) Notification requirements for the detection of any significant adverse environmental effect | |
| To be notified within 24 hours of detection | |
| Description of where the effect on the environment was detected | |
| Substances(s) detected | |
| Concentrations of substances detected | |
| Date of monitoring/sampling | |

Part B – to be submitted as soon as practicable

| | |
|--|--|
| Any more accurate information on the matters for notification under Part A. | |
| Measures taken, or intended to be taken, to prevent a recurrence of the incident | |
| Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission | |

| | |
|---|--|
| The dates of any unauthorised emissions from the facility in the preceding 24 months. | |
|---|--|

| | |
|-----------|--|
| Name* | |
| Post | |
| Signature | |
| Date | |

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“Annex I” means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Annex II” means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“approved waste management plan” means a plan of the type described in Article 5(1) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, approved as part of the grant or variation of an environmental permit and as revised from time to time.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“emissions to land” includes emissions to groundwater.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations

“exploration” means activities carried out to provide information about geological structures and the presence or absence of gas reserves together with assessments to determine whether the reservoir development is economically feasible.

“extractive waste” means waste resulting from the prospecting, extraction, treatment and storage of mineral resources and the working of quarries, excluding waste which does not directly result from these operations.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“mining waste facility” means a waste facility as defined in Article 3(15) of Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC, where a mining waste operation is carried out.

“prospecting” means prospecting as defined by article 3(21) of the Mining Waste Directive as ‘the search for mineral deposits of economic value, including sampling, bulk sampling, drilling and trenching, but excluding any works required for the development of such deposits, and any activities directly associated with an extractive operation.

“year” means calendar year ending 31 December.

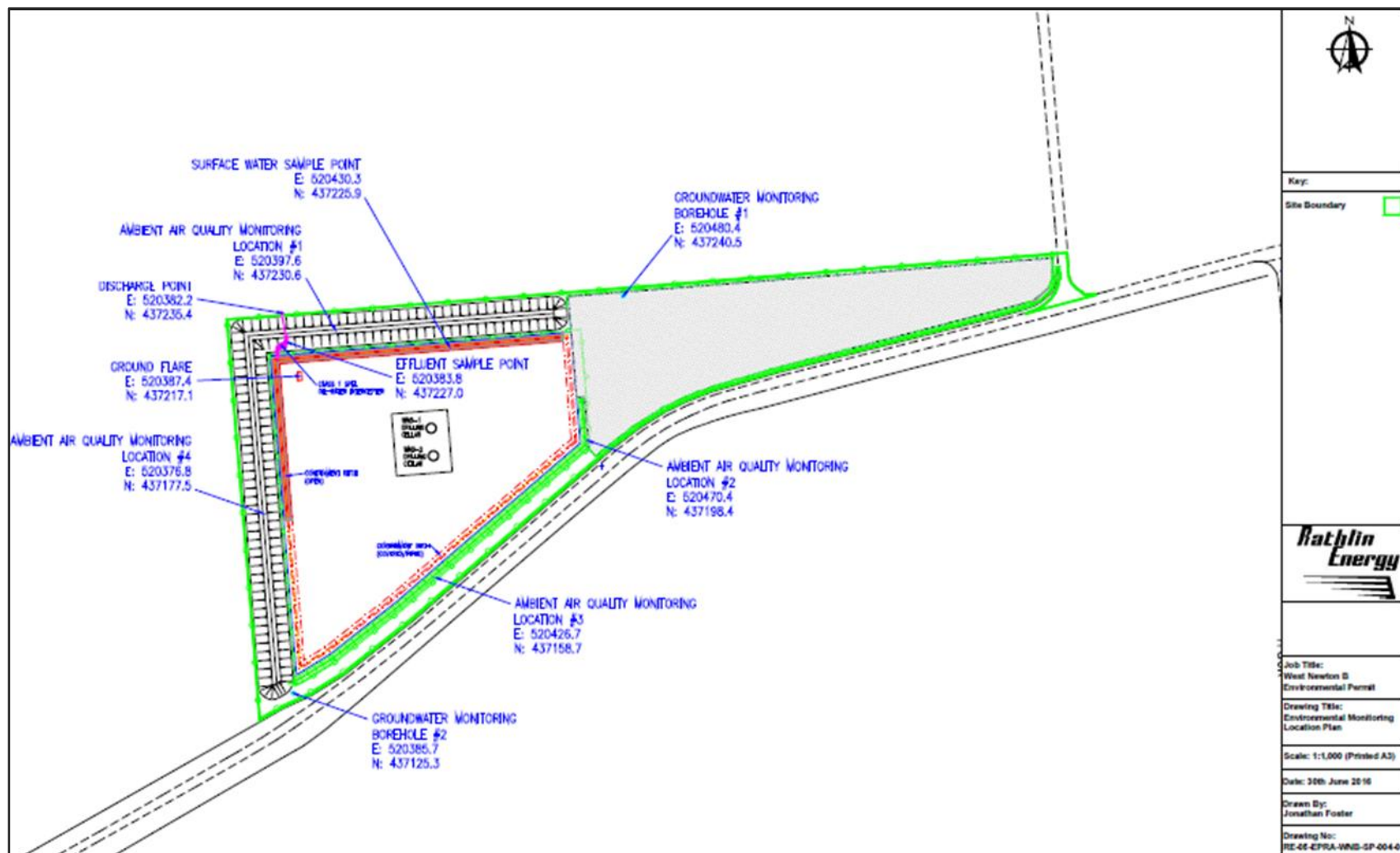
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Schedule 7 – Site plan



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END OF PERMIT

Variation application number
EPR/DB3503HL/V004

Permit Number: EPR/DB3503HL

Operator: Rathlin Energy (UK) Limited

Facility : West Newton B Well site

Form Number: Air1/xx/xx/2021

Reporting of emissions to air for the period from dd/mm/year to dd/mm/year

| Emission Point | Substance / Parameter | Emission Limit Value | Reference Period | Result ^[1] | Test Method ^[2] | Sample Date and Times ^[3] | Uncertainty ^[4] |
|-----------------------|---|-----------------------------|-------------------------|------------------------------|-----------------------------------|---|-----------------------------------|
| | Oxides of nitrogen (NO and NO ₂ expressed as NO ₂) | | | | | | |
| | Carbon monoxide | | | | | | |
| | VOC as Total Organic Carbon (TOC) | | | | | | |
| | Flare temperature | | | | | | |

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: EPR/DB3503HL Operator: Rathlin Energy (UK) Limited

Facility : West Newton B Well site Form Number: Groundwater1 xx/xx/2021

Reporting of groundwater monitoring for the period from dd/mm/year to dd/mm/year

| Monitoring Point (as agreed under pre-operational condition 2.4.1) | Substance / Parameter (as listed in table S3.2) | Trigger level | | | | | |
|---|--|--|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------|
| | | (To be determined and agreed following submission and review of baseline groundwater quality data required under pre-operational condition 2.4.1.) | Reference Period | Result ^[1] | Test Method ^[2] | Sample Date and Times ^[3] | Uncertainty ^[4] |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed Date.....
(Authorised to sign as representative of Operator)

Permit Number: EPR/DB3503HL **Operator:** Rathlin Energy (UK) Limited

Facility : West Newton B well site **Form Number:** Perfomance1 xx/xx/2021

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

| Parameter | Unit |
|-----------|------|
| | |
| | |
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| | |
| | |

| |
|----------------------------|
| Operator's comments |
|----------------------------|

Signed.....

Date.....

(Authorised to sign as representative of Operator)