

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Cory Environmental Holdings Limited
Riverside Decarbonisation Project
Norman Road North
Belvedere
South East London
DA17 6JY

Permit number

EPR/JP3020LL

Riverside Decarbonisation Project

Permit number EPR/JP3020LL

Introductory note

This introductory note does not form a part of the permit

The main features of the installation are as follows:

This permit authorises the operation of a two line post-combustion carbon capture (PCC) plant to capture carbon dioxide (CO₂) from the flue gas from the two incineration plants, Riverside 1 and Riverside 2 for subsequent compression and transport to geological storage under the following EPR Schedule 1 listed activity description:

- Section 6.10 Part A(1)(a) - Capture of carbon dioxide streams from an installation for the purposes of geological storage

It is a multi-operator installation which has three operators: Cory Environmental Holdings Limited, Riverside Resource Recovery Limited and Riverside Energy Park Limited. Cory Environmental Holdings Limited operates the carbon capture (CC) plant under this permit. Riverside Resource Recovery Limited operates Riverside 1 under permit number EPR/BK0825IU and Riverside Energy Park Limited operates Riverside 2 under permit number EPR/EP3245QR.

The CC plant is located at Riverside Campus, Norman Road North, Belvedere, DA17 6JY. The surrounding area includes industrial land, a retail park, and residential areas. The nearest residential property is 120 metres south of the site boundary. There are two Sites of Special Scientific Interest (SSSIs), within 2 km of the facility as well as several other conservation sites. The River Thames is approximately 50 metres north of the installation boundary.

The CC plant will consist of two lines and will capture carbon dioxide (CO₂) from the exhaust gases produced by the two energy from waste (EFW) plants located next to the CC plant. The two EFW plants are Riverside 1 (operational since 2011) and Riverside 2 (due to be operational by 2026). The CC plant is designed to capture at least 95% of the CO₂ emissions from both EFW plants during normal operation, equating to approximately 1.3 million tonnes of CO₂ per year.

The main steps in the CC process are:

Flue Gas Pre-Treatment: Flue gas from the EFW plants will be cooled and conditioned in a direct contact cooler (DCC), which removes water and treats acid gases (sulphuric and nitric acids) before entering the absorber columns.

Absorption: The cooled flue gas will pass up through absorber columns that will contain the amine based solvent, Shell Cansolv. The CO₂ in the flue gas will be absorbed by the solvent. The CO₂ depleted flue gas will then pass through a water wash and, if required, a mist eliminator to capture solvent aerosols and minimise amine emissions. The flue gas will be re-heated before being emitted to atmosphere via two new 100 m high stacks A1 and A2.

Solvent Regeneration: The CO₂ rich solution will be sent to a regenerator (stripper column) which will heat the solution, releasing the captured CO₂. The lean solvent will be recycled back to the absorber. The steam will be provided from the two EFW plants. A back-pressure turbine will be used to ensure steam is at the temperature and pressure required.

A filtration and thermal reclamation system will remove any heat stable salts and degradation products in the amine-based solvent. Lost solvent will be replaced by fresh solvent from storage tanks. Small volumes of amine-loaded sludge will be produced as a by-product of the solvent reclamation process. This will be temporarily stored onsite prior to being transported offsite to an appropriate waste treatment facility as hazardous waste.

CO₂ Processing: The released CO₂ will be compressed, dehydrated and liquefied for temporary storage before being exported for offshore geological storage.

Cooling System: The cooling system is expected to be a combination of wet / hybrid and dry cooling.

Effluent: An effluent treatment plant (ETP) will treat blowdown from the wet / hybrid cooling and effluent from the DCC. The treated effluent will be re-used in the CC process, sludge from the ETP will be taken off-site for disposal..

Storage Containment: All chemicals, including the amine solvent, are stored in bunded and segregated areas with spill protection, leak detection, and emergency isolation valves.

Emissions: The main emissions to air will be from the treated incineration plant flue gases via A1 and A2. Venting of CO₂ can occur during certain situations. This could be during start-up and shut-down, maintenance outages or emergency situations. The only emission to water will be of uncontaminated surface water run-off. There will be no emissions to sewer.

Environmental Management System (EMS)

Cory operates an Integrated Management System (IMS) certified to ISO 14001 (Environmental), ISO 9001 (Quality), ISO 45001 (Health and Safety), and ISO 27001 (Information Security). The EMS will be extended to cover the CC plant.

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

Status log of the permit		
Description	Date	Comments
Application EPR/JP3020LL/A001	Duly made 31/10/2025	Application for a permit for a carbon capture plant.
Response to schedule 5 notice dated 13/05/2026	06/07/2026	Several clarifications relating to containment, cooling towers, mist elimination, plumes and site plan
Additional information received	05/08/2026	Clarification on compression and liquefaction
Permit determined EPR/JP3020LL	28/08/2026	Permit issued to Cory Environmental Holdings Limited

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Riverside Resource Recovery Limited	EPR/BK0825IU	08/09/2003
Riverside Energy Park Limited	EPR/EP3245QR	EPR/GP3535QS issued on 17/07/2020 Full transfer to EPR/EP3245QR on 06/07/22

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/JP3020LL

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Cory Environmental Holdings Limited ("the operator"),

whose registered office is

Level 5

10 Dominion Street

London

EC2M 2EF

company registration number **05360864**

to operate part of an installation at

Riverside Decarbonisation Project

Norman Road North

Belvedere

South East London

DA17 6JY

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

Name	Date
Principal Permitting Team Leader	28/08/2026

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 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

- 1.4.1 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.
- 1.4.2 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.

1.5 Multiple operator installations

- 1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

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 red on the site plan at schedule 7 to this permit. The areas edged in green and blue represent the extent of the installation covered by the permits of the other operators of the installation.

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 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

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 S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 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 systematic appraisal 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 tables S3.1 and S3.2;
- (b) process monitoring specified in table S3.3;

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 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 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 and unless otherwise agreed in writing by the Environment Agency.

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 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2;
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule; and
- (d) The function and monitoring of the carbon capture plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement give an account of the running of the process (including a summary of records of process monitoring requirements of table S3.3), the emissions into air compared with the emission limits in table S3.1 and details of the waste generated.

4.2.3 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 S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 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.

4.4 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 "without delay", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	S6.10 A(1)(a)	Capture of carbon dioxide streams from an installation for the purposes of geological storage Operation of a carbon capture plant in two lines involving the treatment of exhaust gas from the two incineration plant into the capture plant using an amine-based solvent to extract CO₂ followed by compression, oxygen removal and dehydration of the CO₂ for off-site transportation and long-term storage, and release of CO₂-abated flue gas to atmosphere.	From receipt of exhaust gases from the two incineration plant to the carbon capture plant to the conditioning of captured CO₂ prior to export of CO₂ from the installation; release to atmosphere of treated exhaust gases from emission points A1 and A2; or venting of CO₂ from emission points A4 and A5 in the event of other than normal operating conditions (OTNOC). Only Shell Cansolv DC-103 shall be used as the solvent to capture CO₂. Only flue gases from permits EPR/BK0825IU and EPR/EP3245QR shall be accepted and only if they are compliant with the limits in table S3.1 of those permits.
Directly Associated Activity			
AR2	-	High pressure compression plant to compress CO ₂ prior to exporting it to an offshore storage facility.	From receipt of treated CO ₂ to compression of CO ₂ to dispatch from site.
AR3	-	Storage of waste amine solvent generated at the carbon capture plant.	From generation of waste materials to dispatch off-site for disposal.
AR4	-	Emergency power generation Engine fuelled on gas oil, thermal input < 1MW	Emergency use to a maximum of 500 hours operation per year per engine. Maximum of 50 hours testing per year per engine.
AR5	-	Raw materials handling and storage Handling and storage of amine solvent and other reagent for use at the carbon capture facility. Storage of gas oil for use in emergency gas oil generators serving carbon capture facility.	From receipt of raw materials to dispatch for use.
AR6	-	Back pressure turbine	Providing steam/heat and electricity for use within the

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
			carbon capture plant with excess electricity exported from the site.
AR7	-	Water treatment plant, consisting of reverse osmosis, bisulphite treatment used for treatment of the blowdown from the hybrid cooling towers and effluent from the DCC.	From receipt of hybrid cooling tower blowdown for re-use at the CC facility as feedwater.
Note 1: Must not exceed 500 hours operation in a 12 month period as a rolling average over a 5 year period or operate for more than 750 hours in any single year.			

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The following section of the Environmental Permit Application Technical Supporting Document dated September 2025: 3.1, 3.2, 4, 5, 6.1.2, 6.3, 6.4, 6.6, 6.7, 7, 8, 9, 11, 12	Duly Made 31/10/2025
Noise management plan	Measures in noise management plan as approved with the Environment Agency through pre-operational condition PO8	-
Schedule 5 notice response	The response to questions 1, 2 and 3	06/07/2026

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<u>Calibration and verification testing</u> The operator shall submit a written summary report to the Environment Agency to confirm the results of calibration and verification testing show that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 comply with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3. The report shall include the results of calibration and verification testing.	Initial calibration report to be submitted to the Environment Agency within 3 months of completion of commissioning of the carbon capture plant. Full summary evidence compliance report to be submitted within 18 months of completion of commissioning of the carbon capture plant.
IC2	<u>Monitoring location standards</u> During commissioning, the operator shall carry out tests to assess whether the air emissions monitoring location(s) A1 and A2 meet the requirements of BS EN 15259 and supporting Method Implementation Document (MID). A written report shall be submitted for approval setting out the results and conclusions of the assessment including where necessary proposals for improvements to meet the requirements. Where notified in writing by the Environment Agency that the requirements are not met, the operator shall submit proposals or further proposals for rectifying this in accordance with the time scale in the notification. The proposals shall be implemented in accordance with the Environment Agency's written approval.	Report to be submitted to the Environment Agency within 3 months of completion of commissioning of the carbon capture plant.
IC3	<u>Commissioning</u> The operator shall submit a written report to the Environment Agency for assessment and written approval on the commissioning of the carbon capture plant. The report shall summarise the environmental performance of the carbon capture plant as set out in the commissioning plan required by pre-operational condition PO1 in table S1.4 of this permit. The report shall include: • A summary of the environmental performance of the carbon capture plant as installed against the design parameters and risk assessments set out in the application and updated in response to the pre-operational conditions in this permit; and • A review of the performance of the carbon capture plant against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions and confirmation that the Environmental Management System (EMS) has been updated accordingly.	Within 6 months of the completion of commissioning of the carbon capture plant.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC4	<u>Carbon capture performance</u> The operator shall submit a written report to the Environment Agency for assessment and written approval detailing the carbon capture efficiency of the Carbon Capture Plant under normal operating conditions (calculated using the methodology as approved in accordance with pre-operational condition PO5 in table S1.4 of this permit) averaged over one year of operation as specified in table S3.3 of this permit. Should the carbon capture efficiency during normal operating conditions be reported to be less than the design capture performance specification of 95%, the operator shall carry out an analysis of the issues affecting the performance of the plant with respect to achievement of the 95% carbon capture rate and either: • Submit written proposals for remedial actions designed to improve capture efficiency to the Environment Agency for approval; or • Provide an acceptable justification to the Environment Agency that a 95% capture rate is not reasonably achievable, and that no further remedial action is to be taken. The operator shall implement any proposals identified within the report in accordance with the Environment Agency's written approval and within the approved timescales.	Within 15 months of the completion of commissioning of the carbon capture plant.
IC5	<u>Amine solvent degradation</u> The operator shall submit a written report to the Environment Agency for assessment and written approval on the degradation of absorber solvent quality. The report shall review the findings from the monitoring of absorber solvent quality over 12 months of operation, including but not limited to the monitoring carried out in accordance with table S3.3 of this permit. The report shall include: • An investigation into the reasons for solvent degradation and how degradation affects the performance of the plant over time; • A review of the options for reducing the rate of solvent degradation; and • Proposals for the implementation of any measures identified from the review. The proposals shall be implemented in accordance with Environment Agency's written approval.	Within 15 months of the completion of commissioning of the carbon capture plant.
IC6	<u>Air emissions risk assessment (Carbon capture plant)</u> The operator shall submit a written report to the Environment Agency for technical assessment and written approval. The report must contain an emissions to air risk assessment in line with the Environment Agency's guidance which is based on sampled and monitored emissions data from emission points A1 and A2 in table S3.1. Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the permit application EPR/JP3020LL/A001. For any parameters not included in the original impact assessment, or those showing to be at concentrations higher than those assumed in the impact assessment submitted in the application, an assessment shall be made of the impact to human health and habitats of each	Within 15 months of commencement of operation of the carbon capture plant.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	parameter using the '<u>Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk)</u>' guidance. Where the updated environmental risk assessment shows a risk of causing exceedances of the EALs, the operator shall propose remedial actions to reduce the emissions of these pollutants to acceptable levels agreed in writing with the Environment Agency. Where Environmental Assessment Levels (EALs) for emitted substances are not available on the current published EAL list on gov.uk the operator should propose a new EAL. To derive a new EAL, the operator should follow the Environment Agency's published guidance on air emissions risk assessments. The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency's written approval.	

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO1	<u>Commissioning plan</u> At least 3 months prior to the commencement of commissioning of the carbon capture plant, the operator shall submit a written commissioning plan, including timelines for completion, for assessment and written approval by the Environment Agency. The commissioning plan shall include, but not be limited to: • The timelines for the commissioning and the expected durations of these activities. • The expected emissions to the environment during the different stages of commissioning; risk assessment demonstrating that the environmental risks are not significant throughout all the phases of commissioning; the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. • A Commissioning Monitoring Plan. • A methodology for approval to demonstrate the carbon capture efficiency of the plant. The approved methodology shall be used to demonstrate the carbon capture efficiency of the plant as part of the commissioning activities, and, after the commissioning phase, for process monitoring and reporting purposes in compliance with the conditions of the permit. • A methodology for approval for quantifying total mass of CO₂ emissions during short duration venting that may be required during the start-up sequence of the carbon capture plant and during other than normal operating conditions. The commissioning activities shall be carried out in accordance with the commissioning plan approved by the Environment Agency.
PO2	<u>Process monitoring methods</u> Following the completion of the final design of the carbon capture plant and at least 6 months prior to the commencement of commissioning the operator shall submit to the Environment Agency for assessment and written approval proposed methodologies for the following process monitoring requirements for absorber amine solvent quality as required in table S3.3 of this permit: • percent active amine (MEA) • carbon dioxide loading (rich amine) • heat stable salts • soluble iron concentration (rich and lean amine) • colour • degradation products
PO3	<u>Carbon capture plant other than normal operating conditions (OTNOC) plan</u> Following the completion of the final design of the carbon capture plant and prior to the commencement of commissioning of the carbon capture plant, the operator shall submit to the Environment Agency for assessment and written approval a carbon capture plant OTNOC management plan. The plan shall include: (i) Any potential 'other than normal operating conditions (OTNOC)' for the carbon capture plant, taking into consideration both internal and external causes of OTNOC. (ii) Details of measures to: • minimise the occurrence of OTNOC that are within the operator's control; and • reduce the impact of all OTNOC events. (iii) Proposals for reviewing and optimising capture performance periodically so capture rates are as high as reasonably practicable during these periods. The OTNOC plan shall be included in the EMS.

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO4	<u>Monitoring standards</u> At least six months before (or other date agreed in writing with the Environment Agency) the commencement of commissioning of the carbon capture plant, the operator shall submit a written report to the Environment Agency, and obtain the Environment Agency's written approval for it, specifying arrangements for continuous and periodic monitoring of emissions to air from the carbon capture emission points to comply with EN 15259 and Environment Agency guidance notes on monitoring stack emissions measuring locations, techniques and standards for periodic monitoring and for quality assurance of CEMS: <u>Monitoring stack emissions: carbon capture plants with solvent-based abatement - GOV.UK</u> <u>Monitoring stack emissions: techniques and standards for periodic monitoring - GOV.UK</u> <u>Monitoring stack emissions: quality assurance of continuous monitoring - GOV.UK</u> The report shall include the following: • Details of monitoring locations, access and working platforms. • Evidence that CEMS are MCERTS certified at the appropriate range. • Evidence that data handling and acquisition systems are MCERTS certified. • Methods and standards for periodic monitoring. • Procedures for the quality assurance of CEMS, which includes evidence of completion of CEMS' functional tests and setting up quality assurance level (QAL) 3 checks, prior to completing a QAL2.
PO5	<u>Carbon capture performance</u> At least 3 months prior to the commencement of commissioning, the operator shall submit the following to the Environment Agency for approval: • A methodology to demonstrate the carbon capture efficiency of the plant. The approved methodology shall be used to demonstrate the carbon capture efficiency of the plant as part of the commissioning activities, and, after the commissioning phase, for process monitoring and reporting purposes in compliance with the conditions of the permit. • A methodology for quantifying total mass of CO₂ emissions during short duration venting that may be required during the start-up sequence of the carbon capture plant and during other than normal operating conditions.

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO6	<u>CO₂ venting assessment</u> Following the completion of the final design of the carbon capture plant and at least 12 months prior to the commencement of commissioning, the operator shall submit to the Environment Agency for assessment and written approval a report that reviews the outcomes of the CO₂ venting emissions to air risk assessment presented in the application EPR/JP3020LL/A001. This report shall include but not be limited to: • confirmation of the vent location(s) • information on how modelling has been used to inform the process design and manage risks associated with CO₂ venting. This should include a description of the different potential venting scenarios • confirmation that the design is in line with industry best practice, such as that produced by the Energy Institute, or other equivalent guidance • a description of the operating techniques that will minimise the risks associated with venting CO₂ to atmosphere and limit venting scenarios to those considered in their application • a vent management plan which is in keeping with our published guidance on emerging techniques for post-combustion carbon capture and industry best practice, such as that produced by the Energy Institute, or other equivalent guidance.
PO7	<u>Storage and containment infrastructure</u> Following the completion of the final design for the carbon capture plant, and prior to the commencement of commissioning operations, the operator shall submit a report on the containment infrastructure to the Environment Agency for assessment and written approval. The report shall include information on the detailed design and construction specification of the primary, secondary and tertiary containment infrastructure associated with the carbon capture plant. The report shall demonstrate that the containment systems have been designed and specified by suitably qualified and experienced engineers to comply with the requirements of CIRIA Report 736 – ‘Containment systems for the prevention of pollution’ 736, addressing the key elements which include: • updating the risk assessment and classification to identify the class of containment required; • developing the specification and design of the primary, secondary and tertiary containment appropriate to the class of containment, taking into account CIRIA 736 guidance on bunding, further containment and transfer systems; • demonstrating that design has taken into account the capacity requirements, including the capacity of the inventory to be contained, allowance for rainfall, firefighting and cooling water provision; and • demonstrating that the isolation and operating philosophy for the secondary and tertiary containment infrastructure prevents accidental emissions to the environment. The operator shall not begin the commissioning operations of the PCC plants, including any associated activities, prior to obtaining written approval by the Environment Agency to this pre-operational condition.

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO8	<u>Noise Impact Assessment (NIA) and Noise Management Plan (NMP)</u> Following the completion of the final design of the carbon capture plant and at least 6 months prior to the commencement of commissioning, the operator shall submit an updated NIA and NMP for assessment and written approval by the Environment Agency. The revised NIA shall be informed by updated and final noise emissions data provided by equipment manufacturers during the detailed engineering design of the plant, taking into account the detailed noise attenuation measures included in the design according to BAT. The NIA shall also take account of any additional mitigation measures identified during the design stage including those listed section 4.1 of the NMP submitted with the application EPR/JP3030LL/A001. The revised NIA shall be carried out by an experienced and suitably qualified person (i.e. a noise consultant with an appropriate qualification accredited by the Institute of Acoustics), in accordance with the procedures given in BS4142:2014 (Rating industrial noise affecting mixed residential and industrial areas) and BS7445: 2003 (Description and measurement of environmental noise). The revised NMP shall reflect the revised NIA and shall include where relevant, but not limited to, updated: • references to the revised NIA conclusions; • specific noise control measures to be implemented with associated attenuation levels; • confirmation that the noise attenuation levels stated in the preliminary NMP submitted with the application EPR/JP3030LL/A001 will be attained as a minimum, or further noise attenuation will be achieved when this is practical, according to BAT; • description of on-site processes that will ensure impacts do not increase on site; and • actions to be taken if noise is detected outside optimum process parameters.
PO9	<u>Environmental Management System</u> Prior to the commencement of commissioning, the operator shall send a summary of the site Environmental Management System (EMS) to the Environment Agency and obtain the Environment Agency's written approval to the EMS summary. The operator shall make available for inspection all documents and procedures which form part of the EMS. The EMS shall be developed in line with the requirements set out in Environment Agency web guide on developing a management system for environmental permits (found on www.gov.uk). The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.
PO10	<u>The leak detection and repair (LDAR) and fugitive emissions minimisation and monitoring plans</u> Following the completion of the final design of the carbon capture plant and prior to the commencement of commissioning of the carbon capture plant, the operator shall submit to the Environment Agency for assessment and written approval the LDAR and fugitive emissions minimisation and monitoring plans for the carbon capture plant, solvent and ammonia. The LDAR and fugitive emissions monitoring plans shall be included in the EMS.
PO11	<u>CO₂ conditioning and compression</u> Following the completion of the final design of the carbon capture plant and at least 6 months prior to the commencement of commissioning, the operator shall submit a report, and obtain the Environment Agency's written approval to it, specifying the arrangements for the captured CO₂ conditioning and compression. The report shall include confirmation of the emission location, composition and impacts from venting non-condensable gases.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas oil, or other equivalent fuel as agreed with the Environment Agency in writing	< 0.1% sulphur content
Carbon capture solvent	Shell Cansolv DC-103, formulation consistent with emission profile assessed in application EPR/JP3020LL/A001 document Air Risk Assessment dated 30/09/2025.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air - emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down	Reference period	Monitoring frequency	Monitoring standard or method
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Ammonia	PCC absorber stack	10 mg/m ³ Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Note 2
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Total amines	PCC absorber stack	0.3 mg/m ³ Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	1-Piperazineethanol CAS No. 103-76-4	PCC absorber stack	No limit applies Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Piperazine CAS No. 110-85-0	PCC absorber stack	No limit applies Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	1,4- Piperazinediethanol CAS No. 122-96-3	PCC absorber stack	No limit applies Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Monoethanolamine (MEA) CAS No. 141-43-5	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3

Table S3.1 Point source emissions to air - emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down	Reference period	Monitoring frequency	Monitoring standard or method
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Total nitrosamines and nitramines	PCC absorber stack	0.003 mg/m ³ Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	Isokinetic impinger method based on EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	4-Nitroso-1- piperazineethanol Note 4 CAS No. 48121-20-6	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	Isokinetic impinger method based on EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	1-nitrosopiperazine CAS No. 5632-47-3	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	Isokinetic impinger method based on EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Total amides and formamides	PCC absorber stack	0.023 mg/m ³ Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	4-(2-Hydroxyethyl) piperazin-2-one CAS No. 23936-04-1	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Piperazin-2-one CAS No. 5625-67-2	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3

Table S3.1 Point source emissions to air - emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down	Reference period	Monitoring frequency	Monitoring standard or method
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	1-formyl-4-(2-hydroxyethyl) Piperazine CAS No. 25209-64-7	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	1-formylpiperazine CAS No. 7755-92-2	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	EN ISO 21877 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Acetaldehyde and formaldehyde	PCC absorber stack	1 mg/m ³ Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	CEN TS 17638 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Acetone	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	CEN TS 13649 Note 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Acetonitrile	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	CEN TS 13649 Note 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Ethanol	PCC absorber stack	No limit set Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	CEN TS 13649 Notes 2 and 3

Table S3.1 Point source emissions to air - emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down	Reference period	Monitoring frequency	Monitoring standard or method
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Acetic acid	PCC absorber stack	No limit applies Note 5	Average over the sampling period Note 1	Monthly, unless otherwise agreed with the Environment Agency following compliance with IC6	CEN TS 13649 Notes 2 and 3
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Carbon dioxide	PCC absorber stack	No limit applies	-	Continuous	BS EN 14181
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Oxygen	PCC absorber stack	No limit applies	Continuous as appropriate to reference	Continuous	BS EN 14181
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Flow	PCC absorber stack	No limit applies	-	Continuous	EN ISO 16911-2
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Water vapour	PCC absorber stack	No limit applies	Continuous as appropriate to reference	Continuous	BS EN 14181
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Stack gas temperature	PCC absorber stack	No limit applies	Continuous as appropriate to reference	Continuous	Traceable to national standards
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	Stack gas pressure	PCC absorber stack	No limit applies	Continuous as appropriate to reference	Continuous	Traceable to national standards

Table S3.1 Point source emissions to air - emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down	Reference period	Monitoring frequency	Monitoring standard or method
A1, A2 as shown on figure 5 in application EPR/JP3020LL/A001	As required by the Method Implementation Document for BS EN 15259	PCC absorber stack	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A4, A5 As shown on figure 5 in application EPR/JP3020LL/A001	Carbon dioxide	Emergency relief vent	No limit set	-	-	-
A3 As shown on figure 5 in application EPR/JP3020LL/A001	No parameters set	Back up generator fuelled on gas oil	No limits set	-	-	-
Note 1 - "average over the sampling period" means the average value of three consecutive measurements of at least 30 minutes each or as agreed in writing with the Environment Agency Note 2 - The monitoring standard or method shall be in accordance with our guidance: Monitoring stack emissions: carbon capture plants with solvent-based abatement - GOV.UK and our standard monitoring guidance at: Monitoring stack emissions: techniques and standards for periodic monitoring - GOV.UK Note 3 - Isokinetic sampling shall be undertaken unless it is demonstrated that no mist or droplets are present at the monitoring location. Note 4 - Also referred to as 1-Nitroso-(4-hydroxyethyl)-piperazine depending on nomenclature used. Note 5 - PCC plants emission limits are normalised to reference conditions of temperature 273K, at a pressure of 101.3kPa and with an oxygen content of 11% dry.						

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
N1 to N12 emission to ditches west of the installation as shown on figure 4 in application EPR/JP3020LL/A001	Uncontaminated surface water run-off	No parameters set	No limits set	-	-	-

Table S3.3 Process monitoring requirements					
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
Absorber amine solvent quality	Percent active amine	Daily, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-	
Absorber amine solvent quality	Carbon dioxide loading (rich amine)	Weekly, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-	
Absorber amine solvent quality	Heat stable salts	Every day during the first month of operation then once per week, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-	
Absorber amine solvent quality	Soluble iron concentration – rich amine	Every day during the first month of operation then once per week, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-	

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Absorber amine solvent quality	Soluble iron concentration – Lean amine following stripper	Once per week, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-
Absorber amine solvent quality	Colour	Weekly, or otherwise agreed in writing with the Environment Agency	As agreed in writing with the Environment Agency in accordance with PO2 in table S1.4	-
Absorber amine solvent quality,	Degradation products – including but not limited to amines, nitrosamines, nitramines (in absorber amine prior to reclaiming and after reclaiming)	Monthly, or otherwise agreed in writing with the Environment Agency	BS EN ISO 10695, or otherwise agreed in writing with the Environment Agency	-
Carbon capture performance	Carbon capture efficiency (%) during normal operation	Continuous	Calculation by method traceable to national standards, to be agreed in writing with the Environment Agency as part of PO5 in Table S1.4 of this permit	Note 1
Venting of CO ₂ from carbon capture plant – emission point A4 and A5	- Duration of event - Total mass of CO₂ emissions (tonnes / event)	Event specific, total annual	Calculation by method traceable to national standards compliant with UK ETS, to be agreed in writing with the Environment Agency as part of PO5 in Table S1.4 of this permit	The operator shall identify the root cause of the venting event and consider ways to prevent or reduce the frequency and duration of reoccurrence
Carbon dioxide metering package	Exported CO ₂ mass flow (tonnes/hour)	Continuous	Mass flow metering traceable to national standards compliant with UK ETS, to be agreed in writing with the Environment Agency as part of PO5 in table S1.4 of this permit	-

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Custody transfer point	Composition of exported CO ₂ , including but not limited to: - Water content - H ₂ content	To be agreed in writing with the Environment Agency	By method traceable to national standards compliant with UK ETS, to be agreed in writing with the Environment Agency as part of PO5 in table S1.4 of this permit	CO ₂ transport and storage system specification
Note 1: Instantaneous and annual average Carbon Capture Efficiency to be monitored for the CO₂ absorber stage. Annual average Carbon Capture Efficiency to be averaged over 1 year of operations (from 1st of January) during normal operation. Excluding periods of OTNOC. OTNOC includes venting of CO₂ during periods of time when the CO₂ transport and storage system is not available due to causes external to the operations of the installation; and periods of start-up and shut-down.				

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
Point source emissions to air Parameters as required by condition 3.5.1	A1, A2	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
-	-

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	m ³
Energy usage	Annually	MWh
Efficiency of carbon dioxide capture (CO ₂ Absorber stage) during normal operation	Annually	%
Total (thermal and electrical) energy use per tonne of carbon dioxide captured	Annually	kWth/tonne CO ₂ captured kWe/tonne CO ₂ captured
Amine solvent usage	Annually	tonnes
Total CO ₂ captured and exported	Annually	tonnes
Total CO ₂ vented to atmosphere	Annually	tonnes
Water consumption per unit carbon dioxide captured	Annually	m ³ /t
Period each carbon capture plant is not available	Annually	No of occasions and cumulative hours for current calendar year

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 2, February 2026
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

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

“abatement equipment” means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

“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.

“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.

“CAS No. or number” means Chemical Abstracts Service and is the unique and unambiguous identifier for a specific substance.

“CEM” Continuous emission monitor.

“commissioning” for the carbon capture plant means testing of the carbon capture plant where flue gases from the incineration plant are directed to the absorber column.

“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 limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“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, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“OTNOC” means other than normal operating conditions.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

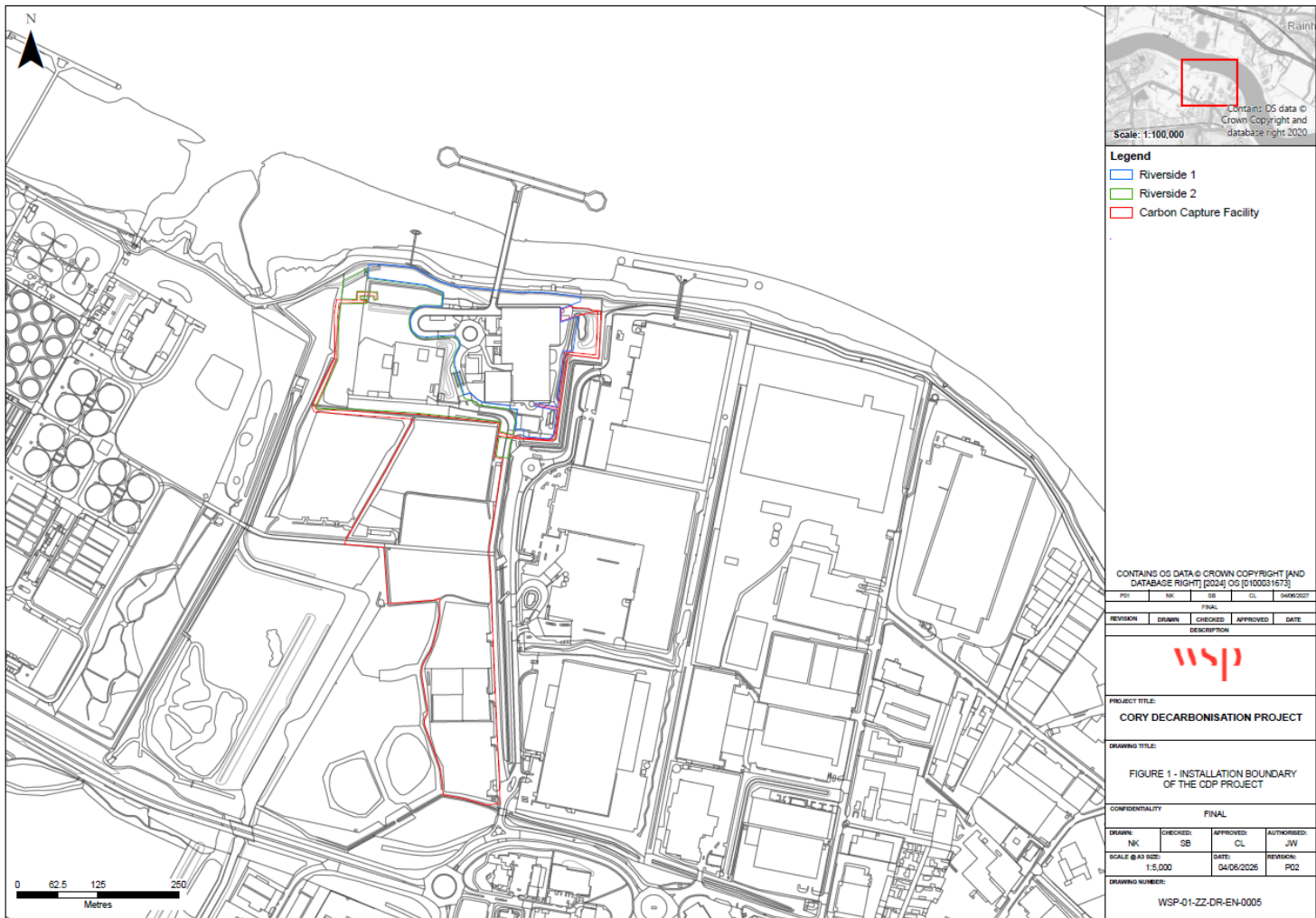
“year” means calendar year ending 31 December.

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:

- 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 gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous 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



END OF PERMIT