



Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Colt Technology Services

Colt - Welwyn
20 Blackfan Road
Welwyn Garden City
AL7 1QA

Permit number

EPR/KP3139DW

Colt - Welwyn

Permit number EPR/KP3139DW

Introductory note

This introductory note does not form a part of the notice.

The main features of the permit are as follows:

Colt Technology Services operates a data centre to the east of Welwyn Garden City within the Peartree Industrial Estate. To the west, north-west and south-east of the site are industrial and business units. To the north, east and south of the site are more sensitive receptors including residential developments and Panshanger School. The National Grid Reference for the site is TL2536112806. The site is approximately 4.65 hectares in size.

This facility consists of the following scheduled activity under the Environmental Permitting (England and Wales) Regulations 2016:

- Section 1.1 A (1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.

The regulated facility, when at full capacity, will consist of 75 diesel fuelled standby generators each with a net thermal input greater than 1MWth and an aggregated thermal input of 266.6MWth. The generators will only operate in the event of failure of the National Grid power supply to site or in accordance with a scheduled testing and maintenance regime. They will not themselves generate any electricity for export to the National Grid. There are also two smaller generators, each with net thermal input less than 1MWth, these are used solely for powering administration offices and a fire suppression pump.

To ensure there will always be sufficient generation capacity available to supply standby power to site, the facility will operate with a built in resilience. When the full complement of 75 generators are on site, no more than 42 of these will be required to meet the expected site energy requirements in the event of National Grid outage.

The generators will serve specified data halls and combustion products (NO_x, CO, PM₁₀) generated by their operation will be released to air through individual exhausts which are vertical, horizontal or at 45° angle set at heights of approximately 3.7 – 14.0m above ground level.

The diesel to power the generators is stored a series of primary tanks and local belly tanks specific to individual generators. The tank capacities range from 10,000 litres to 64,000 litres. Two smaller tanks supply fuel for the two smaller generators.

The site is covered in hardstanding and surface water/rainfall is collected in a series of underground site drains which discharge off-site to sewer via a series of oil/water interceptors and a pollution defender device.

The facility is approximately 8.7km north-west of Wormley-Hoddesdonpark Woods Special Area of Conservation (SAC) and 1.4km south-west of Tewinbury Site of Special Scientific Interest (SSSI). The facility is not within the boundary of an Air Quality Management Area.

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 EPR/KP3139DW/A001.	Duly made 16/03/18	Application for operating up to 75 standby diesel powered generators at a Data Centre.
Application for commercial confidentiality.	27/03/18	Application received for commercial confidentiality on a number of items in permit application.
Additional information received.	10/04/18 & 11/04/18	Confirmation of noise sources modelled.
Issue of partial acceptance of request for commercial confidentiality.	22/05/18	Confidentiality agreed for contact information of staff working at Colt, Welwyn.
Additional information received.	22/05/18	Submission of site emission points plan.
Additional information received.	12/06/18	Acceptance by operator of decision on commercial confidentiality request.
Response to Schedule 5 Notice dated 23/05/18.	24/07/18	Submission of revised documentation: <ul style="list-style-type: none"> - Drainage plan; - Fuel tank inventory; - Tanks and fill points locations; - Permit boundary; - Emission points.
	26/07/18	Submission of revised documentation: <ul style="list-style-type: none"> - Environmental permit compliance manual; - Fuel delivery procedure; - EUETS fuel transfer operational procedure; - Generator and tank preventative maintenance check; - Colt Welwyn Site work instruction.
	27/07/18	Submission of revised documentation: <ul style="list-style-type: none"> - Non-Technical summary; - Risk assessment.
Additional information received.	10/08/18	Submission of revised: <ul style="list-style-type: none"> - BAT options appraisal; - Plan of permit boundary; - Plan of site emission points.
Additional information received.	17/08/18	Submission of: <ul style="list-style-type: none"> - Fuel storage appraisal; - Sustainable drainage report.
Additional information received.	22/08/18	Submission of revised BAT assessment.
Additional information received.	29/08/18	Further detail on the testing regimes of stand-by generators and the scenarios used as the basis for the air quality modelling assessment.
Additional information received.	29/08/18	Submission of information on the assessment and management of fire risk.
Additional information received.	26/09/18	Further clarification on integral bunding of diesel tanks and thermal input capacities of individual generators.

Status log of the permit		
Description	Date	Comments
Additional information received.	27/11/18	Further information on site boundary, diesel tank containment, diesel tank venting and air dispersion modelling.
Additional information received	09/01/19 & 15/01/19	Further information on number of standby generators present on site and thermal inputs of the two generators (both <1MWth) that are used to supply power to administrative offices and fire sprinkler systems.
Permit determined EPR/KP3139DW (PAS Billing ref. KP3139DW).	18/01/19	Permit issued to Colt Technology Services.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/KP3139DW

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

Colt Technology Services ("the operator"),

whose registered office is

**Colt House
20 Great Eastern Street
London
EC2A 3EH**

company registration number 02452736

to operate an installation at

**Colt - Welwyn
20 Blackfan Road
Welwyn Garden City
AL7 1QA**

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

Name	Date
David Griffiths	18/01/2019

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;
 - (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.

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 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 For the following activities referenced in schedule 1, table S1.1, AR1, the activities shall not operate for more than 500 hours in emergency use per annum.

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 operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table 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 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;

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 continuous), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

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 performance parameters set out in schedule 4 table S4.2 using the forms specified in table S4.3 of that schedule.

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 S4.3; 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 (a)(i) or 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, or 4.3.1 (d) where the information relates to malfunction or breakdown of abatement equipment 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, 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	Section 1.1 A (1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<p>Operation of emergency standby generators burning diesel solely in order to provide electricity to the installation in the event of a failure of National Grid electricity supply.</p> <p>The standby emergency generators comprise:</p> <ul style="list-style-type: none"> - 30 generators at 5.52MWth; - 4 generators at 4.49MWth; - 2 generators at 3.69MWth; - 9 generators at 2.30MWth; - 30 generators at 1.83MWth. 	<p>From receipt of raw material (diesel) to combustion in emergency standby generators for electricity production to exhaust of products of combustion to atmosphere to generation, storage and dispatch of wastes.</p> <p>Electricity produced at the installation cannot be exported to the National Grid.</p> <p>Generators shall only be operated for on-site emergencies and not for elective power generation, such as Balancing Services, Demand Side Response operations including Frequency Control Demand Management (FCDM) or Triad Avoidance.</p>
Directly Associated Activity			
AR2	Storage of raw materials	Storage of raw materials including diesel.	From receipt of raw materials to use within the installation.
AR3	Generation of power	Generation of power by one 0.3MWth input generator for installation-specific activities – fire sprinkler system.	From receipt of fuels to generation of power solely to supply fire sprinkler system.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR4	Surface water drainage	Management of site surface water.	From input to internal site surface drainage system to discharge from site via interceptors.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/KP3139DW/A001	Section 3, Table 3a of Part B3 of Application Form. Section 3 of Application, Non-Technical Summary: <ul style="list-style-type: none"> - Generator operation (including testing & maintenance); - On site fuel storage; - Waste management; - Air emissions; - Compliance procedures. Section 4 of Application, Risk Assessment. Section 5 of Application, Best Available Techniques (BAT) Options. Section 6 of Application, Site Operating Procedures. Section 7 of Application, Site Work Instructions.	Duly Made 16/03/18
Response to Schedule 5 Notice dated 23/05/18	Drainage plan; Fuel tank inventory; Tanks and fill points locations; Emission points.	24/07/18
	Environmental Permit Compliance Manual; Fuel delivery procedure; EUETS fuel transfer operational procedure; Generator and tank preventative maintenance check; Colt Welwyn Site work instruction.	26/07/18
	BAT options appraisal; Site plan with emission points.	10/08/18
	Fuel storage appraisal; Sustainable drainage operation.	17/08/18
Additional information	Testing regimes of generators.	29/08/18
Additional information	Assessment and management of fire risk.	29/08/18
Additional information	Integral bunding and containment of diesel tanks.	26/09/18
Additional information	Diesel tank containment and bunding.	27/11/18

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>The operator shall submit proposals for baseline soil and groundwater investigation to the Environment Agency for written approval.</p> <p>The proposals must cover the entirety of the site occupied by the data centre, follow appropriate British and International Standards and include the following</p> <ul style="list-style-type: none"> • a description of the scope of investigation including characterisation of the physical state of soil under the site, • a suite of analyses to be undertaken (for both soil and groundwater) • potential future monitoring requirements and timescales. <p>The proposed investigative programme shall ensure that all information necessary to make a quantified comparison with the state of the site upon definitive cessation of activities and surrender of the environmental permit is available.</p>	01/09/19
IC2	<p>The operator shall submit a baseline report to the Environment Agency, for written approval. The report shall presents and discusses the results and analyses of the baseline investigation produced as part of IC1 and outline any requirements for future monitoring and timescales for implementation to satisfy the requirements of Condition 3.1.2 of the permit.</p>	01/01/20
IC3	<p>The Operator shall undertake a noise assessment during all periods of scheduled generator testing and maintenance. The assessment shall be in accordance with the procedures given in BS4142: 2014 (Rating industrial noise affecting mixed residential and industrial areas) in order to verify the assessment provided within the application.</p> <p>The assessment shall include, but not be limited to:</p> <ul style="list-style-type: none"> • a review of the noise sources from the facility (where any noise sources are identified as exhibiting tonal contributions, they shall be quantified by means of frequency analysis); • a review of noise mitigation measures. <p>A written report shall be provided to the Environment Agency for approval detailing the findings of the noise assessment.</p> <p>The report shall include:</p> <ul style="list-style-type: none"> • a review of whether any improvements are required • proposals and timescales for their implementation. <p>The proposals submitted in the report shall be implemented by the operator from the date of approval in writing by the Environment Agency.</p>	01/04/20

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC4	<p>The operator shall produce an Air Quality Management Plan in conjunction with the Local Authority outlining response measures to be taken in the event of National Grid failure. This should include but not be limited to the following considerations:</p> <ul style="list-style-type: none"> • The response should be tailored to reflect the predicted potential impact indicated by the air dispersion modelling at individual receptors; • Specific timescales for response measures; • How local conditions during a grid failure might influence the response required, for example meteorological conditions or time of day; • Contingency for how the response will be carried out in the event scenario i.e. loss of power; and • Timescales for continued review of the management plan. <p>The Air Quality Management Plan shall be submitted to the Environment Agency for approval.</p>	01/07/19
IC5	<p>The operator shall carry out monitoring of the emissions from the generators at their loading rates whilst in testing and emergency operation modes.</p> <p>The monitoring should be for a representative number of generators by type and size and to recognised monitoring standard</p> <p>The operator shall use this data to produce a revised air quality modelling report based on actual operational scenarios emissions rather than the worst case scenario emissions presented in the environmental permit application.</p> <p>The report shall be submitted to the Environment Agency for written approval.</p>	01/04/20
IC6	<p>The Operator shall submit a report to the Environment Agency for approval confirming the short-term nitrogen dioxide concentrations that have been predicted in the reassessment of the air quality modelling provided in the response to IC5 in proximity to the generators, at the boundary of the site and at the identified sensitive local receptors.</p> <p>The report shall include but is not limited to:</p> <ul style="list-style-type: none"> • Monitoring of ambient air quality at those required locations using monitoring methods agreed in advance with the Environment Agency; • A comparison of modelled against monitored concentrations of nitrogen dioxide; • A demonstration that appropriate monitoring location(s) were selected taking into account the modelled predictions and the weather conditions prevalent at the time of the monitoring; and • Details of the MCERTS qualifications held by the monitoring team. <p>The output of the verification exercise should be used to revise the air quality management plan if necessary.</p>	01/07/20

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC7	<p>The Operator shall submit a report, encompassing all the permitted site including those generators and associated infrastructure to be installed as part of site expansion plans, that outlines a review of options for reducing predicted short term nitrogen dioxide emissions impacts for the scenarios of weekend generator testing, annual generator maintenance and operation of the generators during a national grid failure emergency scenario. This shall include but is not limited to:</p> <ul style="list-style-type: none"> • A feasibility study in line with Best Available Techniques (BAT) including cost benefit analysis for potential upgrades to generators or stacks including installation of abatement or other changes to infrastructure or operational regimes on site that could reduce emission and increase dispersion; • Proposals for changes in the duration, frequency or timing of engine testing scenarios; • A review into the potential for reductions in the number of generators operating simultaneously during testing and maintenance periods; • An assessment of the control systems used to carry out the testing of the generators and how these have been optimised to minimise emissions • An assessment of the operating systems to ensure only the most efficient engines are used during emergency grid failure scenarios); • Proposal of an appropriate timescale for improvements. <p>The review and timescale for improvement shall be submitted to the Environment Agency in writing for approval.</p> <p>The proposals shall be implemented by the operator in line with the timescales agreed by the Environment Agency.</p>	01/12/20
IC8	<p>The Operator shall carry out a review of the site's tertiary containment system which serves the oil and diesel storage tanks. The review shall compare the system's design, method of construction and integrity against the standards outlined in CIRIA guidance C736 – Containment Systems for the Prevention of Pollution or an equivalent industry standard.</p> <p>A written report of the review shall be submitted to the Environment Agency for written approval which details:</p> <ul style="list-style-type: none"> • the review's findings and recommendations; • proposals for the implementation of recommended improvements; and • timescales for implementation of improvements. <p>The operator shall implement the recommended improvements to the tertiary containment system within the timescales approved by the Environment Agency.</p>	01/06/19

Reference	Requirement	Date
IC9	<p>The operator shall submit a revised drainage plan covering the entire site to the Environment Agency for approval.</p> <p>The site drainage plan shall</p> <ul style="list-style-type: none"> • be drawn to scale • outlines and differentiates the exact locations of all subsurface drainage routes (surface water and foul sewer), • be annotated with all emission points for aqueous discharges off-site and on-site oil interceptors. <p>In the event the drainage plan indicates there are surface water discharges from the facility which do not pass through an oil interceptor prior to discharge. The operator shall submit to the Environment Agency proposals and timescale for directing drainage to an oil interceptor prior to discharge off-site.</p> <p>The proposals shall be implemented by the operator in line with timescales agreed by the Environment Agency.</p>	01/06/19

Reference	Operation	Pre-operational measures
POM1	Generator installation for site expansion.	Prior to the installation of new standby generators 61 - 75, the operator shall submit a detailed design report to the Environment Agency. The report shall demonstrate how the specification of the generator, height and orientation of discharge flue, location of generator and operational programme are designed to minimise NOx emissions and optimise atmospheric dispersion with a view to reducing any impact of short-term NOx emissions on sensitive local receptors.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Diesel	Not exceeding 0.1% w/w sulphur content

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A2 – A34, A36 - A77 [Shown on site plan in Schedule 7]	Standby generator exhausts.	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	-	No monitoring required	-
		Carbon monoxide	No limit set	-	No monitoring required	-
		Sulphur dioxide	No limit set	-	No monitoring required	-
Vents associated with diesel fuel storage tanks	Vents from storage tanks DM1 – 54 in Appendix B to Fuel Storage Appraisal (August 2018).	No parameters set.	No limit set	-	No monitoring required	-

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7	Uncontaminated site surface water via oil interceptors	Oil and grease	None visible	Spot sample	Weekly	-
S2 on site plan in schedule 7	Uncontaminated site surface water via oil interceptors	Oil and grease	None visible	Spot sample	Weekly	-
S3 on site plan in schedule 7	Uncontaminated site surface water via oil interceptors	Oil and grease	None visible	Spot sample	Weekly	-

Schedule 4 – Reporting

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

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to sewer Parameters as required by condition 3.5.1	S1, S2, S3	Annually	01/01/19

Parameter	Frequency of assessment	Units
Diesel usage	Annually	tonnes
Generator operation for testing/maintenance	Report to be submitted annually	<ul style="list-style-type: none"> - total hours for the site (hours) - total hours per generator (hours) - total number of runs per generator (number) - number of minutes per run (minutes)
Generator operation for emergency running	Within 24 hours of emergency operation commencing	<ul style="list-style-type: none"> - date and time of National Grid failure; - number of generators operating immediately after the failure (number); - number of generators operating two hours after the failure (number); - total duration (anticipated duration) of mains supply failure (hours)
Generator operation for emergency running	Annually	<ul style="list-style-type: none"> - total number of runs (number); - total duration of runs (hours).

Media/parameter	Reporting format	Date of form
Sewer	Form “sewer 1” or other form as agreed in writing by the Environment Agency	18/01/19
Other performance indicators	Form “performance 1” or other form as agreed in writing by the Environment Agency	18/01/19
Generator operation during emergency scenario	Form “emergency scenario” or other form as agreed in writing by the Environment Agency	18/01/19

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 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.

“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.

“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.

“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.

“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.

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

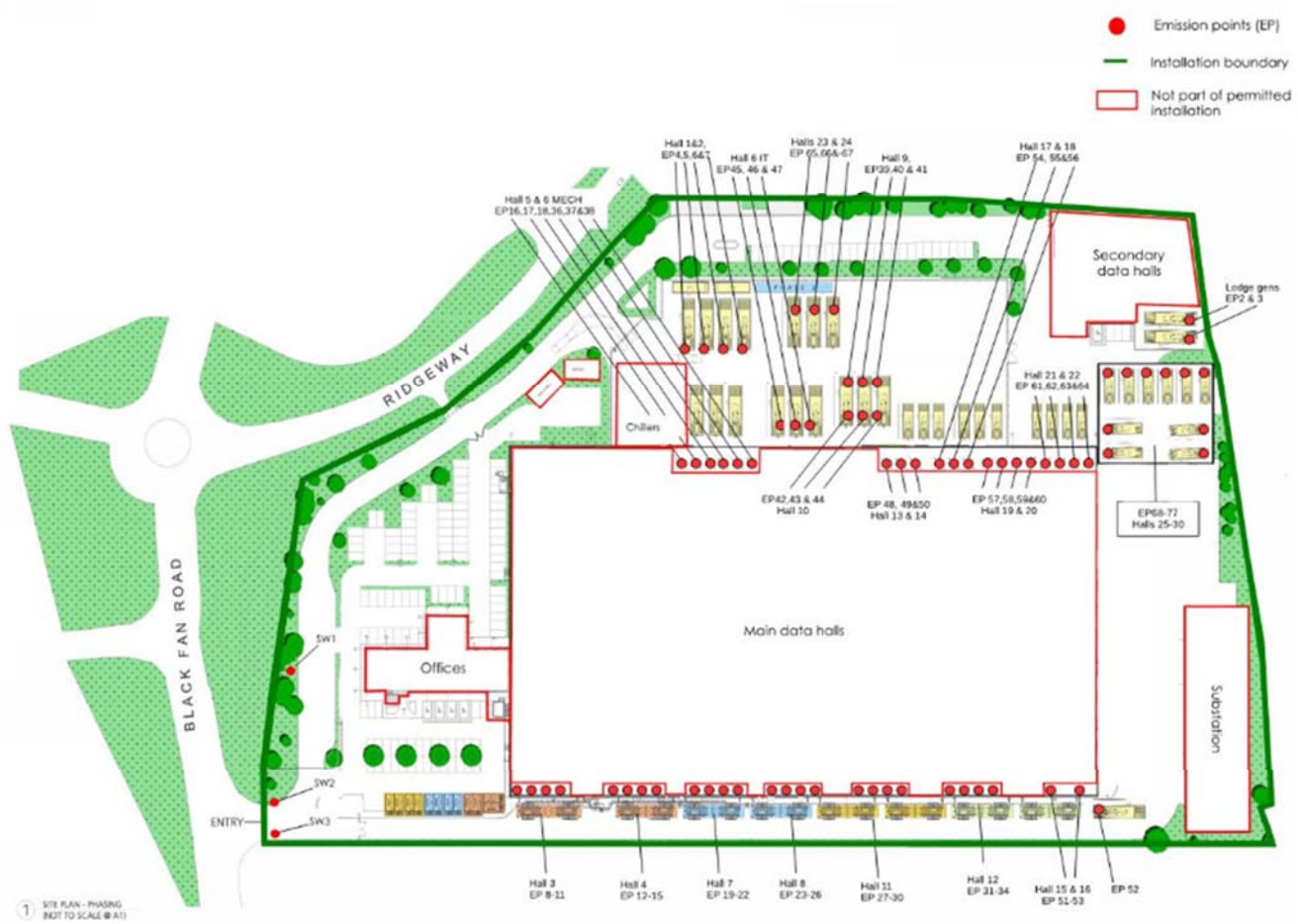
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 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.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT

Permit number
EPR/KP3139DW

Permit Number: EPR/KP3139DW

Operator: Colt Technology Services

Facility: Colt, Welwyn

Form Number: Sewer 1 / 18/01/19

Reporting of emissions to sewer for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance/ Parameter	Emission Limit Value	Reference Period	Test Method	Sample date and times of any tests where oil or grease was visible ^[1]
S1	Oil and grease	None visible	Spot sample	Visual assessment	
S2	Oil and grease	None visible	Spot sample	Visual assessment	
S3	Oil and grease	None visible	Spot sample	Visual assessment	

1. For non-continuous measurements, the date and time of any samples that produced a positive result for oil or grease is given.

Signed

Date.....

(Authorised to sign as representative of Operator)

Generator emergency scenario – to be provided within 24 hours of grid failure

Permit Number: EPR/KP3139DW Operator: Colt Technology Services
 Facility: Colt, Welwyn Form Number: Emergency Scenario / 18/01/19

Reporting of generator emergency scenario operation

Parameter	
Date of grid failure	DD/MM/YY
Time of grid failure	XX:XX
Number of generators operating immediately after the failure	
Number of generators operating 2 hours after failure	
Anticipated duration of the mains supply failure	(hours)

Operator's comments:

Signed
 (Authorised to sign as representative of Operator)

Date.....

Performance parameters

Permit Number: **EPR/KP3139DW** **Operator:** **Colt Technology Services**
Facility: **Colt, Welwyn** **Form Number:** **Performance1 / 18/01/19**

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

Parameter	Value		Units
Diesel usage			Tonnes
Generator annual operation in emergency scenario			Number of runs
	Run	Duration of run	
	1		
	2		
Generator annual operation for maintenance (Total hours for the site)			(hours)

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)