Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Next Generation Data Ltd

Newport Data Centre
Imperial Park
Celtic Way
Marshfield
Newport
NP10 8BE

Permit number

EPR/AB1234CD

Newport Data Centre
Permit number EPR/AB1234CD

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The permit regulates a Section 1.1 Part A (1) (a) activity under the Environmental Permitting Regulations 2016 for the burning of any fuel in an appliance with a rated thermal input of 50 or more megawatts. The site consists of 77 standby diesel generators with an aggregated thermal input rating of 146MW. They will provide back-up generation for Newport Data Centre in the event of a power failure supply from the National Grid. Each generator has its own individual stack and generators are enclosed in containers. The permit regulates testing and maintenance activities as well as the emergency back-up generation. The generators will be used solely for the purpose for generating power for the facility in an emergency. No electricity will be exported from the installation.

There are 5 generator types in total with varying thermal inputs (MWth), specifically: Perkins 4006-23TAG3A(1.970 MWth) installed at cells GF1 and GF2 (10 generators in total), Kohler MTU 12V1600G20F-E (X715C2)(1.457 MWth) installed at cells GF14-17, GF19, GF20 and GF21 (29 generators in total), Volvo PentaTAD 1642GE(1.311 MWth) installed at cells GF24 and GF29 (18 generators in total, MitsubishiS12R-F1PTAW2 (T1650C)(3.226 MWth) installed at TF1 (5 generators s in total) and Kohler KD45V20-5DEP (2.987 MWth) installed at TF2, TF3 and TF4 (15 generators in total). Stack heights range from 3.937m to 3.184m above ground level and the generators are grouped into 12 different cells. Each cell has a group of one generators type.

The emissions from the exhaust gas will comprise of:

- Oxides of nitrogen
- Particulates
- Carbon Monoxide CO
- Carbon Dioxide CO_2
- Sulphur Dioxide SO_2

In the event of a mains power failure, all 77 standby generators would start up at the same time, after which an automated system would instruct load-shedding to take place to turn individual generators off to match power requirements. This load shedding occurs within 10-15 minutes of a power failure occurring. The hours of operation for the testing of the stand-by diesel generators is restricted to 0900 to 1700 Monday to Friday and at no times on weekends or Bank or Public Holidays. No more than two cells are tested at the same time (but only one black building test a day) and there is no overlapping of testing scenarios.

Testing and maintenance scenarios are:

- Quarterly Servicing – Next Generation Data Ltd (NGD) has a Maintenance Strategy whereby the assets are serviced on a quarterly basis. Each generators has three minor services and one major service a year:
    - two of the minor services require a 2-hour load bank test to be completed after the service (each generators is run for 2 hours individually. Individual generators are tested sequentially for 2 hours);
    - the other minor service and the major service require the generators to be test-run individually for up to 15 minutes after servicing.

- Black Building Test - Twice per year per cell of generators (a total of 24 times per year), a controlled mains failure is simulated to prove the system's response. In this test a single data hall powertrain is selected, power to the single data hall powertrain is isolated and the system responds as it would in an emergency scenario. All generators associated with the isolated data hall powertrain fire up during this test, with load shedding down to the required output occurring within 10-15 minutes. As in a real emergency scenario, the number of generators which would continue to operate after load shedding would vary depending on the client's use of their data racks at that particular time. A maximum of nine generators would be left running, the number of generators being dependant on the size of the data hall powertrain being tested. Only one black building test will be done per day.

The generators shall only be used outside the above-mentioned time of testing in the case of an emergency (i.e. power failure). No monthly testing is carried out.

Each generator cell has its own fuel storage tank, made up of two separate inner tanks. Each generator also has a smaller day tank. The generators and fuel tanks are situated on concrete plinths, surrounding by hardstanding. All fuel storage tanks are stored on an impermeable surface with sealed drainage. The generators and tanks are within integrally-bunded metal containers, and the fuel supply system is made up of double skinned pipes. All piping is above ground and connection points are in bunded areas. All activities on site occur on hard-standing. There are no bulk fuel storage facilities. All fuel storage tanks are small and situated close to the point of use.

Uncontaminated surface water is discharged into the business park drainage system at W1 and W2. The Surface Water drains flow from site down to a Pen Stock approximately a mile away from the site, on land controlled by the Welsh Assembly Government. There is a drain isolation system in place where 'bladders' inflate within the pipework to provide tertiary containment. The drains are manually isolated during high risk activities such as refuelling and are also fitted with leak detection sensors in the drains to automatically isolate the drains in case of a spill. From there, it can be pumped out and disposed of appropriately offsite. Outside the installation boundary and wider NGD site, there are also interceptors installed within the wider business park drainage system which act as a further protection to surface water receptors. There will be no discharges of any process effluent to sewer, as none is generated by this activity. The onsite surface water system also has an automatic shut off system to close the site outflow pipes at W1 and W2 in the event of a fuel leak, this has an automatic function and will notify the maintenance team upon activation or fault.

The site is located on an Industrial Estate at Imperial Park, Newport. The National Grid Reference (NGR) for the site is ST 28142 84568. The site is approximately 5.7 hectares in size. The surrounding area is a mix of industrial, commercial and residential use along with environmentally sensitive receptors. Nearby designated sites that have been considered in assessments are the Gwent Levels – St Brides SSSI, River Usk SAC, Severn Estuary SAC/SPA/RAMSAR along with surrounding Local Wildlife Sites.

NGD has an ISO 14001:2015 certified integrated management system.

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/AB1234CD/A0001	Duly made 07/02/2019	Application for a combustion activity providing emergency power supply to a data centre.
Schedule 5 request for more information	11/04/2019	Further information sought regarding noise and air quality assessment.
Schedule 5 additional information received	15/07/2019	Air quality assessment
	17/07/2019	Air quality modelling files
	25/07/2019	Noise quality report
	29/07/2019	Noise modelling files
Schedule 5 request for more information	15/08/2019	Additional information sought regarding Air Quality assessment.
Schedule 5 additional information received	06/09/2019	Further air quality details and modelling files.
Schedule 5 request for more information	14/10/2019	Additional information sought regarding noise assessment/conclusion.
Schedule 5 additional information received	28/10/2019	Further noise modelling information.
	26/11/2019	Amended noise modelling/report (Generator Testing Rev 4.0).
	09/12/2019	Associated noise modelling files.
Permit determined	DD/MM/YY	Permit issued to Next Generation Data Ltd.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number
EPR/AB1234CD

The Natural Resources Body for Wales ("Natural Resources Wales") authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Next Generation Data Ltd ("the operator"),

whose registered office is

2 Old Bath Road
Newbury
Berkshire
England
RG14 1QL

company registration number **06132144**

to operate an installation at

Newport Data Centre
Imperial Park
Celtic Way
Marshfield
Newport
NP10 8BE

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

Signed	Date
[name of authorised person]	***[DD/MM/YYYY]***

Authorised on behalf of Natural Resources Wales

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 recovered with a high level of energy efficiency and 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.

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 (a) 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 Natural Resources Wales.

(b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales 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 Natural Resources Wales.

2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.3 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.

2.3.4 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.

2.3.5 The activities shall not operate for more than 500 hours in emergency use per year.

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 Natural Resources Wales.

2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Monitoring

3.3.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, 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.

3.4 Odour

3.4.1 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 Natural Resources Wales, 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.

3.4.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales 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 Natural Resources Wales.

3.5 Noise and vibration

3.5.1 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 Natural Resources Wales, 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.

3.5.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Natural Resources Wales, 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 Natural Resources Wales.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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; and

(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 Natural Resources Wales, 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 Natural Resources Wales, 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 (a) In the event 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 Natural Resources Wales,

(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) in the event of a breach of any permit condition the operator must immediately—

(i) inform Natural Resources Wales, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) in the event 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 limit specified in the permit, 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 Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Natural Resources Wales 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.

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) Natural Resources Wales 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 Natural Resources Wales 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 "immediately", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
Section 1.1 A(1) (a) : Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more	Operation of emergency standby generators burning diesel solely for the purpose of providing electricity to the installation in the event of a failure of supply from the National Grid comprising: 10 x 1.97 MWth 29 x 1.457 MWth 18 x 1.311 MWth 5 x 3.226 MWth 15 x 2.987 MWth standby generators with a total thermal input of 146.486 MWth 77 standby generators A1-A77. Also testing and maintenance operations	From receipt of raw materials to combustion of fuel and release of exhaust gases to atmosphere. Distribution of emergency standby electrical power to the data centre Electricity produced at the installation shall not be used to provide commercial services to the National Grid or Distribution Network Operator. The hours of operation for the testing of the stand-by diesel generators shall be restricted to 0900 to 1700 Monday to Friday and at no times on weekends or Bank or Public Holidays. No more than two cells shall be tested at the same time and there shall be no overlapping of testing scenarios. Only one black building test (one cell tested) per day.
Directly Associated Activity		
Directly associated activity	Fuel storage - Fuel tanks provide generators with diesel fuel for the above schedule 1 activity	From receipt of diesel to despatch for use in emergency standby generators. All fuel storage tanks must be stored on an impermeable surface with sealed drainage.
Directly associated activity	Surface water drainage system servicing area in which schedule 1 activity takes place	Input to site drainage system until discharged into wider business park drainage system.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application PAN-003940	Next Generation Data Limited Environmental Permit Application – Application Supporting Information. All parts. Application Forms B2 and B3.	29/11/2018
Schedule 5 Notice Request dated 11/04/2019	Response to Schedule 5 Notice - report date 24th July 2019 (Rev 2.0). Information relating to noise assessment, air quality assessment, plant configuration, BAT and grid support services. All parts.	25/07/2019
3rd Schedule 5 Notice Request dated 14/10/2019	Generator Testing Assessment Rev 4.0 – all parts. Including section 7 Mitigation measures (addition of acoustic barrier around cell GF19 and omit monthly testing scenario). Assessment Summary Nov 2019 – all parts.	26/11/2019
Additional Information - Process control email	Fuel system description and surface water system operations and control measures	23/01/2020
Additional information – Concrete area	Fuel storage tanks on concrete areas	05/02/2020

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	Construct an acoustic barrier around GF19 as detailed in Generator testing Assessment, Revision 4.0.	3 months of permit issue.
IC2	The operator shall develop and submit a site-specific Air Quality Management Plan AQMP in conjunction with the Local Authority which identifies the emergency operating conditions (grid failure) when Local Air Quality may be adversely impacted by emissions to air from the installation. This shall include but not be limited to the following considerations: • predicted potential impacts indicated by the air modelling at individual receptors; • 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. The agreed AQMP shall be submitted to Natural Resources Wales for approval.	6 months after permit issue.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC3	The Operator shall undertake noise monitoring at the nearest local receptors for all testing/maintenance scenarios. This shall include: • A full noise monitoring survey and assessment meeting the BS4142:2014 standard including details of local conditions e.g. meteorological conditions (wind direction) • 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise • Reference to the World Health Organisation guidelines for community noise • Reference to the Noise Action Plan for Wales 2018-2023 Upon completion of the work, a written report shall be submitted to Natural Resources Wales. • Monitor noise levels at GF19 after the installation of the acoustic barrier (IC1) to demonstrate that the actual reduction is in line with what was predicted and report to writing to NRW. The report shall refer to the predictions in the report produced as part of the application. If rating levels likely to cause adverse impact at sensitive receptors are detected, the report shall include an assessment of the most suitable abatement techniques, an estimate of the cost and a proposed timetable for their installation.	Within 9 months of permit issue.
IC4	The operator shall produce a report outlining the maintenance and operating regime following the first year of operation after permitting. This shall include but is not limited to the following: • An update on the control systems used to carry out the testing of the generators and how these have been used to minimise emissions and; • Any additional improvements that have been identified to reduce emissions during the maintenance testing and operation of the generators. This should include timescales for the implementation of the improvements. The operator shall submit this report in writing to Natural Resources Wales.	15 months after permit issue

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Diesel	< 0.1% 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	Reference period	Monitoring frequency	Monitoring standard or method
A1-A77 A1[Points A1-A77 on site plan in Schedule 7]	Diesel generator exhausts 10 x 1.97 MWth 29 x 1.457 MWth 18 x 1.311 MWth 5 x 3.226 MWth 15 x 2.987 MWth	No parameters set	No limit set	--	No monitoring required	-
Vents associated with each diesel storage tank	Vents from diesel storage tanks	No parameters set	No Limit set	-	No Monitoring required	-

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	Reference period	Monitoring frequency	Monitoring standard or method
Emission point W1 Imperial Park surface water drainage system [Point W1 on site plan in Schedule 7]	Uncontaminated site surface water run-off including rainwater	No parameter set	No Limit set	--	-	-
Emission point W2 Imperial Park surface water drainage system [Points W2 on site plan in Schedule 7]	Uncontaminated site surface water run-off including rainwater	No parameter set	No Limit set	--	-	-

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
-	-	-	-

Table S4.2 Performance parameters

Parameter	Frequency of assessment	Units
Diesel usage	Annually	tonnes
Generator operation for maintenance/testing	Annually	Total hours for the site (hours), total hours per generator (hours), total number of runs per generator (quantity) and number of minutes per run (minutes)
Generator operation during emergency scenario	Within 24 hours if operation commences	Date and time of emergency operation, number of generators operating immediately after failure, number of generators operating two hours after failure, anticipated duration of the mains supply failure (hours)
Generator operation during emergency scenario	Annually	Total number of runs (quantity), duration of runs (hours)

Table S4.3 Reporting forms

Media/ parameter	Reporting format	Date of form
Other performance indicators	Form Performance 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Generator operating during emergency scenario	Form Emergency Scenario or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Generator operating during maintenance/testing scenario	Form Testing and Maintenance Scenario or other form as agreed in writing by Natural Resources Wales	DD/MM/YY

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	**EPR/**
Name of operator	
Location of Facility	**Newport Data Centre, Imperial Park, Celtic Way, Marshfield, Newport, NP10 8BE**
Time and date of the detection	

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
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 permit condition	
To be notified within 24 hours of detection	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
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) In the event 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:	
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 Natural Resources Wales 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.

"emergency use" means 500 hours is an emergency mode of operation for gas turbines and gas engines included in the Industrial Emissions Directive (IED) under 1.1A combustion Chapter III Annex V. The whole or part site plant can only operate as emergency plant up to 500 hours in total per year as an absolute limit for grid outages.

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

"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.

-*"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.

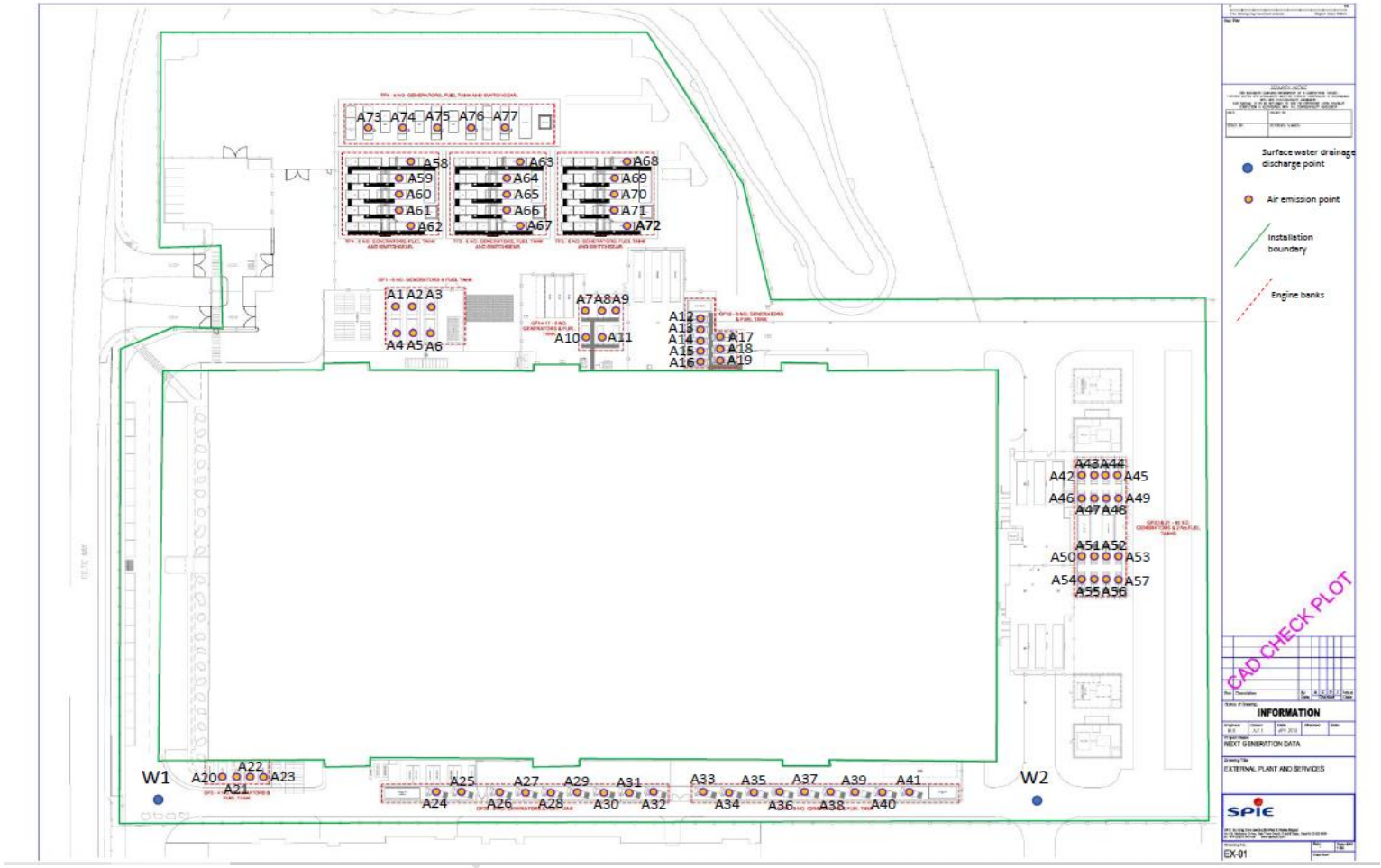
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

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

(b) in relation to emissions from compression ignition engine 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 15% dry for liquid and gaseous fuels; and/or

(c) 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

Generator emergency scenario – to be provided within 24 hours of emergency operation

Permit Number: EPR/XXXXX **Operator: Next Generation Data Limited**
Facility: Newport Data Centre **Form Number: Emergency Scenario / DD/MM/YYYY**

Reporting of generator emergency scenario operation

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

Operator's comments:

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

Performance parameters

Permit Number:	**EPR/**	**Operator:**	**Next Generation Data Limited**
Facility:	**Newport Data Centre**	**Form Number:**	**Performance1 / DD/MM/YYYY**

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

Parameter	Value	Units
Diesel usage		m^3

Parameter	Value		Units
Generator annual operation in emergency scenario			Number of runs
	Run	Duration of run	
	1		
	2		
Operator's comments:			

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

Permit Number: **EPR/**
Facility: **Newport Data Centre**

Operator: Next Generation Data Limited
Form Number: Teasting and Maintenance/ DD/MM/YY

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

Parameter	Value		Units
Generator annual operation in maintenance/testing scenario		Total hours for the site	Hours
		Total hours per generator	Hours
		Total number of runs per generator	Quantity
		Number of minutes per run	Minutes

Operator's comments:

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