

NRW Permit - EPR/BB3599CW – Annual Report 2020 -2021

Introduction

The Permit EPR/BB3599CW was duly made on 22 April 2020 and issued to Next Generation Data Ltd.

Next Generation Data Ltd is based upon the old LG site in Newport and has been operating successfully for over 10 years. It is a 750,000 sq. Ft, single framed building and is deemed the largest data center building in Europe.

In August 2020 Next Generation Data Limited was taken over by Vantage Data Centers who are a large North American data center provider who wants to expand its business across Europe.

The Permit EPR/BB3599CW permits the following activities:

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 1.467 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 one cell shall be tested at a 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 hardstanding.
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.

In accordance with the permit conditions listed within Section 4.2.2, an annual report is required to be submitted:

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.

This document forms that report.

Monitoring

As stated within the Permit tables S3.1 and S3.2 there are no requirements for monitoring emissions and there is therefore no monitoring data to review.

Performance reporting

As outlined with Permit table S4.2 we have submitted the Annual report for the operational hours run and fuel usage in line with the permit requirements and using the reporting forms as stated in S4.3 of the Permit. Initially we had some challenges on the way we started collecting the data as the Scada system showing the run time would “roll up” to the next decimal place for some areas.

This was quickly rectified by capturing the data directly at each generator which shows the hours and minutes break down.

The generator accounts for time in 3-minute segments and for the GF1 & GF2 generators we had to convert the time to be consistent with our approach.

We did have an occurrence which cannot be explained in that some of the generator time clocks had increased, implying usage, without being run. This issue was investigated by our specialist service provider, who confirmed that the Generators in question had not run and this data was excluded from the annual report. In future, we will continue to review all run hours data against maintenance records and if any erroneous runs are identified these will be investigated and checked with our specialist service provider, to ensure the data is accurate and where necessary, discount anomalous results.

We had no emergency scenarios this reporting year to report on.

Improvements

In accordance with the Permit table S1.3 we had various improvement conditions which we had to complete:

IC1 – A new acoustic barrier installed around the GF19 Generator compound.

IC2 – Formulate an Air Quality Management Plan (AQMP) in conjunction with the Local Authority. The local authority was contacted for their comments but were unable to input to the plan due to resource constraints. A copy of the AQMP was submitted to NRW in October 2020.

IC3 – Undertake noise monitoring at the nearest local receptors. A report detailing the outcome of this monitoring (Improvement Condition 3 Noise Assessment) was submitted to NRW in January 2021.

In addition, we have decided to make some enhancements to the GF1 and GF2 fuel lines, in which we have engaged with our specialist supply chain to start the works.

Environmental Incidents

We have had no reports of spillages, leaks, or incidents on site.

Some of the Operations team have recently completed the spillage response trainer course with our specialist service provider. We plan to undertake some internal spillage response training sessions with the onsite team.

We have also conducted various training sessions onsite, with the various teams, regarding the escalation process within the AQMP and how to respond in an emergency with the generators running.

Notifications and Compliance Assessment Reports

Please find the significant notifications and Compliance Assessment Reports listed below, to maintain the permit:

- CAR NRW 0036812 – 22/07/2020 - Extend IC 1 due to Global Pandemic.
- CAR NRW0036873 – 19/08/2020 – Change of ownership.

- Email 25/09/2021 – To close out IC1.
- Email 21/10/2020 – To close out IC2.
- CAR NRW0037131 – 12/11/2020 – Permission to undertake IC3.
- Part C0.5 Administrative variation of a standard bespoke permit - 11/01/2021 – Company name change.
- Email 19/01/2021 – To close IC3.
- Email 29/01/2021 – Submission of the annual report (in line with Permit Table S4.2 requirements).
- Email 03/02/2021 Responding to further information relating to the AQMP IC2.
- Email – 08/03/2021 – Agreement on Break Fix Repairs email requests
- Email 04/03/2021 – Request for an annual report (as per condition 4.2.2 of the Permit) to be submitted.
- Email 08/03/2021 – GF1 & GF2 permission to run on Generators for essential maintenance on the transformers.

No Schedule 5 Notifications have been submitted to NRW.

Complaints

We have had no complaints issued to the Vantage DC service desk.

Site audits

On 19 January 2021 we had a two-day ISO 14001 certification audit undertaken by a BSI environment specialist at the Newport facility. We were issued three opportunities for improvement and three minors; overall, it was a successful audit. The outstanding actions have been raised internally and tracked as part of our continuous improvement cycle to address and close out actions.

Conclusion

With the Global Pandemic we have had some operational challenges this year in the way that we work. We used Atkins Ltd as our specialist consultants to navigate and help us with managing the permit and we are in discussions with them to continue with the same support throughout 2021 and onwards.



Glenn Kitchen
Principle of Facilities
12 March 2021