

Notice of request for more information

The Environmental Permitting (England & Wales) Regulations 2016

The Company Secretary

NNB Generation Company (SZC) Limited

90 Whitfield Street

London

W1T 4EZ

Application number **EPR/MP3731AC/A001**

The Environment Agency, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit duly made on 23/06/20.

Send the information to either the email or postal address below by 22/06/2021.

Email address: psc@environment-agency.gov.uk

Postal address:

Permitting and Support Centre

Quadrant 2

99 Parkway Avenue

Parkway Business Park

Sheffield

S9 4WF

Name	Date
[REDACTED]	21/05/2021

Authorised on behalf of the Environment Agency

Schedule

1. Best available techniques (BAT)

BAT is the use of generators which can meet the latest emission standards for standby plant. The latest standards are equivalent or better than 'TA-Luft 2g' or Tier II USEPA with guaranteed emissions of 2000 mg/m³ for NO_x; 650 mg/m³ for CO, 130 mg/m³ for particulates and dust and 150 mg/m³ for hydrocarbons (Data Centre FAQ Draft version 10.0).

In section 3.1.1 of the Application Document ref. 100207658 Rev.02 you state 'Emissions from the EDGs and UDGs are below the TA-Luft 2g Standards for CO, PM and SO₂, however they exceed the NO_x limit.' Furthermore you state that 'Unlike other standby generators, the safety classified EDGs and UDGs will be required to meet stringent nuclear safety requirements. A nuclear safety case has been prepared which requires that the diesel generators meet safety functional requirements, be safety qualified and meet relevant quality standards including the RCC-E Design and Construction Rules for Electrical Components of PWR Nuclear Islands. Therefore, the draft Environment Agency data centre headlines FAQ guidance emission standards are not considered relevant to the nuclear qualified EDGs and UDGs. You also state that 'The cost to classify an alternative diesel generator with reduced NO_x emissions (if this is even possible to meet the availability and reliability requirements) would be grossly disproportionate to the benefit'.

We acknowledge the requirement for the engines to meet the stringent nuclear safety requirements, however we need to ensure that the combustion units on site minimise emissions as far as is practicable.

Therefore,

Please provide a detailed BAT cost benefit justification on classifying an alternative diesel generator with the latest emissions standards. This should consider the reduction on emissions and their impact, and feasibility and cost of the safety qualifying an alternative diesel generator. You should also carry out a search for alternative cleaner generators that meet the nuclear safety requirements. This should include availability of any suitable diesel generators that achieve better environmental standards than proposed in the application.

2. Air Quality Assessment

We have audited your Air Quality Assessment. We have conducted our own check modelling and sensitivity analysis to our observations and as a result, we cannot agree with some of your conclusions regarding habitat sites:

- We disagree with your conclusions regarding daily NO_x as you have not assessed the impacts for commissioning or a LOOP event; and*
- We also disagree with your conclusions regarding nutrient nitrogen and acid deposition as the PCs at some ecological sites are higher than 1% where background values already exceed the critical loads so we can't assume that they are insignificant.*

However, the conservative modelling assumptions used in the assessment indicate that the predicted level of impact would be lower than predicted in the assessment.

Therefore,

Please reassess the habitats assessment by modelling scenarios which are more realistic – i.e. real combinations of generators rather than assuming EDGs are running all the time. This will lower PCs to a more realistic value.

Please assess the impacts against the daily NO_x critical level for a LOOP event. This should be carried out for the maximum number of hours a day the generators could be operational for.

Please provide us with information about typical number of hours a day that the generators could be operational for in all of the operational scenarios. This will allow us to better understand the likelihood of exceedances occurring.

In addition, provide some additional information regarding the 'maintenance outages' during routine testing. Provide information on what these are and how often they are likely to occur. Also disclose whether the 24-hour testing of all the generators which occur after a maintenance outage are already included in the annual testing hours. If they are not, it is likely that nutrient nitrogen and acid deposition PCs will be significantly higher than currently predicted during routine testing, especially if there are multiple maintenance outages per year.

3. Air quality management plan

The potential impact of emissions to air from different operational scenarios shall be minimised as far as practicable.

Therefore,

Please submit an air quality management plan outlining your measures to achieve this. This shall include but not be limited to the following factors:

- The timings of the commissioning simulated loss of off-site power event testing and routine testing i.e. to avoid unfavourable meteorological conditions and explanation how this has been derived.
- Even distribution of the testing hours between days during the commissioning phase and routine testing.
- Avoidance of coinciding the routine testing of unit 1 with a simulated loss of off-site power event of unit 2 during the commissioning phase.
- A frequency of the maintenance outage (based on the application testing of each engine for a 24-hour period is required after maintenance outage)
- A maximum number of hours of routine testing in one day

4. Site Condition Report

Envirocheck report that was submitted within the Site Condition Report does not provide information about pollution incidents since 2012.

Therefore,

Please provide an up-to-date Envirocheck report that includes information post 2012.