

ENVIRONMENTAL HEALTH - PLANNING MEMO

Date: 15th of September 2021

Register Reference: SD21A/0217

Development: 10 year permission for development consisting of removal of an existing unused waste water treatment facility on site and the erection of two data centre buildings, gas powered energy generation compound, and all other associated ancillary buildings and works; the two data centre buildings, DUB 15 and DUB 16, will comprise a total floor area of c. 33,577sq.m over two storeys; the first 2 storey data centre building (DUB15), located to the southwest of the site, will comprise 16,865sq.m data storage use, ancillary office use and associated electrical and mechanical plant rooms, loading bays, maintenance and storage space; a second 2 storey data centre building (DUB16), located to the southeast of the site, will comprise 16,712sq.m data storage areas, ancillary office use and associated electrical and mechanical plant rooms, loading bays, maintenance and storage space; both data centre buildings will reach a height of 20m; emergency generators and associated emission flues and plant are proposed in compounds adjacent to each data centre building; gas powered energy generation is proposed to the north east corner of the site to provide electricity for the proposed development; the application proposes to re-route and widen an existing watercourse constructed following an earlier planning permission; it is proposed to reroute this watercourse along the eastern and southern boundary of the site; landscaping is proposed to the south of the site to screen the buildings; fencing and security gates are proposed around the site; new access roads within the site are proposed along with 71 car parking spaces and 26 cycle spaces, bin stores, site lighting, and all associated works including underground foul and storm water drainage attenuation and utility cables and all other ancillary works; a Natura Impact Statement will be submitted to the planning authority with the application.

Location: Profile Park, Nangor Road, Clondalkin, Dublin 22

Applicant: Digital Netherlands VIII B. V.

App. Type: Permission

Planning Officer: SARAH WATSON

EHO: Kieran Groarke

Date Received: 04-Aug-2021

Decision Due Date: 28-Sep-2021

Comments

The subject development seeks permission for the following components:

- Two new data centre buildings
- Energy centre with gas turbines to power the proposed development
- Diesel generator yards to provide emergency power to the proposed development
- Roof top condensers
- Air Handling units

The main concern from Environmental Health relates to the potential impact with regards to operational noise. Should the background noise level in this area be increased this could lead to long term negative impacts for the surrounding residential receivers, the nearest of which is located closeby, approximately 60 – 70 meters from the proposed development.

The existing background noise level for the nearest receiver is reflected in the noise monitoring location “NMT2” which was located to the rear of the farmhouse. The background noise (LA90) level at this location is 39dB daytime and 34dB for the night time period as highlighted under Table 9.

Table 14 of the acoustic report predicts the cumulative noise level at “NSR 1” will be 43dB. Whilst the report references this change as a 3dB increase in noise, this is not a true representation of the increase to the existing environment, as highlighted below:

Existing background noise level (LA90) at NSR1 = 34dB Night time (Table 9)
Predicted cumulative noise level at NSR 1 = 43dB Night time (Table 14)

An increase of 9dB for the night time period equates to a doubling of noise and therefore is likely to impact on the residential receiver. This impact would be particularly noticeable during the night time period when people are sleeping.

It is noted that profile park is the subject of other planning developments of similar nature. It is therefore important to ensure that incremental noise increases to the background noise level do not occur as this can lead to “background creep” occurring.

The term “Background creep” refers to the process by which noise levels progressively become higher over time. This can occur in quite areas that have been developed for industrial use whereby there is a slow progression of development in the area which leads to an accumulation of noise sources.

At an overall planning level it is also important to ensure that the integration of large commercial developments into quiet areas is done so without increasing the existing night time noise levels.

REQUEST FOR FURTHER INFORMATION

The proposal is not acceptable to the Environmental Health Department until the following information is submitted and reviewed:

Table 14 of the acoustic report predicts the cumulative noise level at “NSR 1” will be 43dB. Whilst the report refers to this change in noise level as a 3dB increase, this is not a true representation of the increase to the existing environment, as highlighted below:

Existing background noise level (LA90) at NSR1 = 34dB Night time (Table 9)
Predicted cumulative noise level at NSR 1 = 43dB (Table 14)

An increase of 9dB for the night time period equates to a doubling of noise and therefore is likely to impact on the residential receiver. This impact may be particularly noticeable during the night time period when people are sleeping. This increase must be mitigated against in order to prevent potential noise complaints arising in the future.

It should be noted that whilst the acoustic report advises that it will comply with the “identified” criteria, it is the role of the Environmental Health Department to assess the potential impact of a development on the existing environment.

The proposed application highlights a potential for noise to impact on a residential receiver. The noise levels predict a moderate change in the noise level at the nearest receiver during the night time period.

- The applicant is required to assess and re-evaluate all noise emitting equipment proposed on site in this application.
- The applicant must undertake necessary modifications to the proposed structures and operations on site in order to reduce the predicted noise levels at the nearby receivers to an acceptable level during both day and night time.
- The development must not give rise to noise levels that exceed the background level for evening and night time periods.
- The applicant must demonstrate the development can meet the standards set out by South Dublin County Council as noted below:

Noise due to the normal operation of the proposed development, expressed as Laeq over 15 minutes at the façade of a noise sensitive location, shall not exceed the daytime background level by more than 10 dB(A) and shall not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.

Further clarification required:

- Table 16 of the report indicates a significant impact is predicted to occur at NSR 1 during emergency testing however the report does not specify how frequent this scenario is likely to occur and its duration. This must be clearly specified in the amended report. If these events are likely to occur multiple times over the course of a month, mitigation measures will need to be put in place to reduce the noise emissions to a more appropriate level.
- The amended acoustic report must include the exact times for which noise monitoring was undertaken during both daytime and night time.



Kieran Groarke
Environmental Health Officer
15th of September 2021

Tom Prendergast
Principal Environmental Health Officer