



Submission

Submitter:	Mrs Lisa Maguire
Organisation Name:	Health Service Executive
Submission Title:	Environmental Health Submission
Submission Reference No.:	S011779
Submission Received:	15 November 2024

Application

Applicant:	Amazon Data Services Ireland Limited
Reg. No.:	P1181-02

See below for Submission details.

Attachments are displayed on the following page(s).



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Environmental Licencing Programme
Office of Environmental Sustainability
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Co Wexford

14 November 2024

Applicant: Amazon Data Services Ireland Ltd

Proposal: Industrial Emission Licence Application for a Data Storage facility at Drogheda IDA Business and Technology Park, Donore Road, Drogheda, Co Meath

Dear Sir/Madam,

The HSE Environmental Health Consultation report regarding the above application is attached below. The following HSE departments were made aware of the consultation request for the proposed development on 27th September 2024.

- HSE Estates – Helen Maher/Stephen Murphy
- Emergency Planning – Brendan Lawlor
- Director of National Health Protection – Eamonn O'Moore/Ina Kelly
- CHO – Dermot Monaghan

All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate. No additional investigations or measurements were undertaken. This report only refers to those sections of the documents which are relevant to the HSE.

If you have any queries regarding the report, please contact me.

Yours Sincerely,

Principal Environmental Health Officer



14 November 2023

EHIS Reference No. 4244

HSE EIS SUBMISSION REPORT National Environmental Health Service Consultation Report

Report to: Environmental Protection Agency
Type of consultation: Industrial Emissions Licence
Reference Number: P1181-02

Applicant: Amazon Data Services Ireland Limited
Proposal: Industrial Emission Licence Application for a Data Storage Facility at Drogheda IDA Business and Technology Park, Donore Road, Drogheda, Co Meath

Introduction

This report only comments on Environmental Health impacts of the Industrial Emission Licence Review Application and reports submitted by the applicant on the EPA website. The National Environmental Health Service (NEHS) has made observations and submissions on the following specific environmental health areas.

1. Description of proposed development

The applicant has applied for an Industrial Emissions Licence for a data storage facility at Drogheda IDA Business and Technology Park, Donore Road, Drogheda, Co Meath. This facility will provide secure data storage services and distribution of information to individuals, businesses and organisations. There is an existing permitted data centre (Building A) on the site which is licenced by the EPA (IE no. P1181-01) and a 110kV substation compound which provides a power connection to the buildings. Building B which is the subject of this licence review comprises of a 2 storey data storage facility building with mezzanine floors at each level and ancillary elements which include: loading bays, maintenance and storage spaces, associated water tanks, electrical rooms, security and utility spaces, underground foul and stormwater drainage network. It is understood that Building B will have plant and PV panels at roof level and will utilise the existing facilities on site.

The applicant states that the facility will require a continuous supply of electricity to operate. Electricity will be supplied from the national grid during normal operations. The facility will be supplied with electricity from the onsite battery installations and the onsite backup generators if supply is interrupted. The applicant advises that the back up generators will be required in emergency situations when there is a loss of supply from the national grid, critical maintenance to power systems or if a utility supplier requests the applicant to reduce electrical demand on the grid. The back up generators will require routine testing and maintenance.

The existing facility has 26 no. 6.82 megawatt thermal emergency back up generators and the extended installation also includes 26 no. emergency back up generators. As the combined thermal output of the installation exceeds the 50mW threshold of Class 2.1 First Schedule of the EPA Act 1992, an IE licence is required for operation of the emergency generators.

The facility is located on an 18.623 hectare site within Drogheda IDA Business and Technology Park, the Donore Road and M1 bound the site. Drogheda College is located to the east of the



facility with residential developments within 200m of the site boundary. Land further west of the site beyond the M1 is predominantly in agricultural use. Drogheda Retail Park and Newgrange Business Park are located within 100m of the site. The applicant has identified sites with IE licences, IPPC and waste licences within a 5km of the facility in the non-technical summary.

The application documents outline details of cooling systems required to maintain temperature, humidity and pressurisation in the data halls. A potable water supply will be provided from the existing public water supply. Similarly, a connection will be made to the public foul sewer for sanitary effluent from the development.

2. Non-Technical Summary

A non-technical summary was provided on the EPA website in the applicant's documents. The non-technical summary adequately described the licence application details in appropriate language.

I did not find any reference to any public consultation regarding the licence application in the documents on the EPA website.

3. Air Emissions Impact Assessment

The applicant submitted an Air Emissions Impact Assessment Report for the proposed development. The background air quality was established using data from the EPA's continuous air quality monitoring programme.

Air dispersion modelling was carried out to assess the concentrations of nitrogen dioxide beyond the site boundary as a result of emergency operation and testing of diesel generators. The applicant advises that predicted ambient NO₂ levels were in compliance with air quality limit values at all locations beyond the site boundary under all scenarios modelled.

The report concludes that the impacts on ambient air quality associated with emissions from the proposed development will be in compliance with relevant air quality standards. The NEHS is satisfied that the facility should operate in compliance with relevant air quality standards which will protect public health.

4. Noise Impact Assessment

A noise impact assessment (Attachment 7-1-3-2) was provided by the applicant to assess the impact of noise emissions from the operation of the data storage buildings. Noise monitoring was carried out in 2019 in accordance with EPA's NG4 Guidance to quantify the existing noise environment in the vicinity of the nearest noise sensitive receptors. The development is not located in a quiet area as it does not meet EPA criteria.

The results of noise monitoring indicate that the existing noise environment is dominated by traffic noise with other typical noise sources i.e. dogs barking, aircraft over head and birdsong.

The facility will operate 24 hours per day and night time noise emissions must be carefully considered to prevent sleep disturbance.

Based on the EPA NG4 guidance and the current IED Licence condition, the following noise criteria have been deemed appropriate by the applicant:

- Daytime (07:00 to 19:00hrs) 55dB LAr, 15min



- Evening (19:00 to 23:00hrs) 50dB LAr, 15min
- Night time (23:00 to 07:00hrs) 45dB LAeq, 15min.

The applicant states that no tonal or impulsive noise emission will be audible or measurable during the night time. The applicant outlines that during emergency situations when the back up generators are in operation at night, there may be exceedances of the criteria outlined above. A higher noise emission limit has been set for commercial properties adjacent to the site.

Predictive noise modelling was carried out to quantify the noise levels associated with the operation of the proposed development. This modelling indicated that predicted noise levels at all NSL's are below day, evening and night time noise criteria.

Details of noise monitoring from the operation of existing building A were not included in this noise assessment. The results of monitoring should be assessed by the EPA to ensure that the noise emission from building A is in compliance with noise emission limit values set out in the existing IE licence.

The perception of noise can be subjective and compliance with specific noise limits at site boundaries may not be adequate to prevent a noise nuisance at nearby noise sensitive locations particularly at night time. The NEHS recommends that a licence condition regarding a public complaints procedure should be included to ensure that a local resident can make a complaint to the applicant and that complaints are dealt with in a timely manner.

5. Surface Water and Ground Emissions Impact Assessment

The applicant submitted details of an assessment of emissions from the site to water and ground from the data storage facility. The applicant states that operation of the data centre will not give rise to emissions to ground, groundwater or surface water.

Measures to contain and prevent fuel leaks and spills on site are outlined in EIAR and application documents. The NEHS is satisfied that if these measures are fully implemented and monitored, they should be adequate to protect the ground and surface water environment which in turn will protect public health.

6. Climate Change

Climate change is considered “the greatest global health threat of the 21st Century¹”. The Irish Government declared a climate and biodiversity emergency in 2019 and sets out a roadmap to halve emissions by 2030. It is incumbent on every energy consumer to reduce energy consumption and green house gas production to protect human health.

It is the view of the NEHS that the IE licence should include conditions which require the applicant to continuously investigate and implement technologies which reduce GHG emissions and should consider the use of renewable energy resources on site for the creation of electricity.

¹ Managing the Health Effects of Climate Change, The Lancet, Vol 373, Issue 9676, May 2009



Conclusions

1. Details of noise monitoring from the operation of existing building A were not included in this noise assessment. The results of monitoring should be assessed by the EPA to ensure that the noise emission from building A is in compliance with noise emission limit values set out in the existing IE licence.
2. The perception of noise can be subjective and compliance with specific noise limits at site boundaries may not be adequate to prevent a noise nuisance at nearby noise sensitive locations particularly at night time. The NEHS recommends that a licence condition regarding a public complaints procedure should be included to ensure that a local resident can make a complaint to the applicant and that complaints are dealt with in a timely manner.
3. It is the view of the NEHS that the IE licence should include conditions which require the applicant to continuously investigate and implement technologies which reduce GHG emissions and should consider the use of renewable energy resources on site for the creation of electricity.

A handwritten signature in blue ink, appearing to read 'Carmel Lynch', is written over a light blue rectangular stamp.

Carmel Lynch
Environmental Health Officer
Environment and Climate Change Network Support Unit