Submission	
Submitter:	Miss Fiona Byrne
Submission Title:	HSE Submission Report P1170 01
Submission Reference No.:	S010219
Submission Received:	25 February 2022
Application	
Applicant:	Amazon Data Services Ireland Limited
Reg. No.:	P1170-01
See below for Submission details. Attachments are displayed on the following page(s).	

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

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Date: 25 February 2022

Our reference: 2178

Report to: Environmental Licensing Programme
Office of Environmental Sustainability,
Environmental Protection Agency
Johnstown Castle Estate,
Co. Wexford.

EPA reference: P1170-01

Type of Consultation: Industrial Emissions Licence Application

Applicant: Amazon Data Services Ireland Ltd One Burlington Plaza, Burlington Road, Dublin 22 D22E7C9

Nature of Activity:

Classes and Nature of Activity in accordance with the EPA Act 1992 as amended			
Class of Activity	**Main Activity**	**EPA Act Sector (where applicable)**	**Class of Activity Description**
2.1	Yes	Energy	Combustion of fuels in installations with a total rated thermal input of 50 MW or more.

General

The following HSE departments were notified of the consultation:

- Emergency Planning – Brendan Lawlor
- Estates – Helen Maher/ Stephen Murphy
- Assistant National Director for Health Protection –National Clinical Director for Health Protection
- CHO – Ann O'Shea

This report only comments on Environmental Health impacts of the licence application.

The area in which the proposed facility is located was visited by Ms Fiona Byrne, Senior Environmental Health Officer on 9 February 2022 to assist in the preparation of this report.

The Industrial Emissions (IE) Licence is for a Data Storage installation located in Grange Castle, South Business Park, Dublin 22. The installation will provide secure data storage services and distribution of information to individuals, businesses and organisations.

The building will comprise three two storey buildings with mezzanine floors at each level, referred to in the Licence Application as Buildings A, B and C. The development of the site will also contain ancillary buildings including loading bays, maintenance and storage spaces, associated water tanks, sprinkler, tanks, pump house and electrical rooms, security and utility spaces, underground foul and storm water drainage network, on site attenuation ponds, internal road network and site landscaping. The site also includes the Clutterland 110kV electrical substation.

Site Location

The proposed development site is c. 16.5 hectares former greenfield site within the Grange Castle South Business Park. The site is bounded to the west by the realigned Baldonnel Road, to the north by the old and new Nangor Road to the east by agricultural fields and the Grange Castle Motor Company and to the south by the Grange Castle South Access Road which provides access off the Baldonnel Road to the Grange Castle South Business Park.

Grange Castle South Business Park and surrounding area comprises mainly industrial and commercial developments including pharmaceutical, data centres and food manufacturing. The Google data centre is located to the south east of the proposed Amazon facility and the Cyrus One data storage facility to its immediate south. The Microsoft and the EdgeConneX data centres are located to the immediate north of the Amazon Facility.

The nearest occupied dwellings are located c 230m south of the Amazon Data Services site boundary on the Baldonnel Road. The Cyrus One data centre is located between the Amazon facility and the nearest occupied residential dwellings.

A crèche facility is located approximately 600m to the south of the proposed facility.

Air Quality

The Environmental Health Service (EHS) has assessed the air impact assessment and is satisfied that there will be no significant emissions to air during the normal operation of the data storage facility. Attachment 7.4.1 'Emissions to Atmosphere - Main and Fugitive' of the licence application indicates that there are no main emission points to air proposed. The main source of emissions to atmosphere from the proposed Amazon data storage facility will be from the 70 no. 6.49 MWth emergency back-up diesel generators on the site.

Air dispersion modelling results indicate that '*emissions associated with the 70 no. standby generators lead to an ambient NO2 concentration that is 65% of the ambient 1-hour limit value (measured as a 99.8th percentile) and 84% of the ambient annual mean limit value at the worst-case off-site receptor for the worst-case year*'.

The Air Emissions Impact Assessment indicates that '*emissions to atmosphere of NO_2 are predicted to be in compliance with the ambient air quality standards, which are based on the protection of the environment and human health. Therefore, no significant impacts to the ambient air quality environment are predicted'.* (Attachment-7-1-3-2-Air Emissions- Page 4)

It is anticipated that the standby generators will only be used only during an emergency power outage and will be subjected to two testing regimes, one undertaken on a weekly basis at 25% load a maximum of 30 minutes each, one generator at a time sequentially involving all 70 generators and the second test where each generator will be periodically tested at up to 90% load for a maximum of 4 hours per year.

The EHS is satisfied with the conclusion of the Air Emissions Impact Assessment which states that impacts on ambient air quality associated with the standby generators at the proposed Amazon Data Services facility will be in compliance with the ambient air quality standards which are based on the protection of the environment and human health

Noise

The EHS has considered the Noise Impact Assessment submitted by the applicant which was prepared by AWN Consulting. The Assessment states that '*the nearest occupied residential noise sensitive locations are located to the south and south west of the site and consist of single dwelling private properties'* (Chapter 1.1 'Introduction')

The proposed site is not located in an area designated as a 'Quiet Area'.

A baseline noise survey was undertaken by monitoring noise levels at four locations to the north (pitch and putt course), south west, east and south of the proposed site. Monitoring was taken during daytime, evening and night time periods during 9 January 2020, which was prior to the introduction of any Covid related restrictions which had the potential to impact on industrial activity and traffic volumes.

The noise monitoring survey results are outlined in Chapter 3.6 and included in Tables 3-6 in of the Noise Impact Assessment. Road traffic noise and, to a lesser extent, construction noise were the most significant daytime noise sources at each of the four locations. Road traffic noise was the most dominant night time noise source.

Section 5.1 'Noise Sensitive Locations' identifies 14 Noise Sensitive Locations (NSLs) surrounding the site. Four operational scenarios were used to consider the noise impact of the proposed operation of the Amazon facility. The modelling results for each of the four scenarios are included in Tables 12, 13 14 and 15 and all locations were found to comply with the adopted criteria for each of the four scenarios.

The EIAR states that during the operation of the facility the '*primary source of noise is expected to arise from building service plant which will be required to service the data storage facilities as well as the operation of the emergency back- up generators during testing and emergency scenarios'*

To mitigate noise impacts '*plant items have been selected in order to achieve the required noise levels in order that the plant noise emission levels are achieved on site during operations'* (Chapter 5.4 'Noise

Emissions' Non -Technical Summary) Each emergency generator will be located within an acoustic container and in line attenuators for the generator stacks and exhausts will also be used.

The EHS notes that it is proposed to undertake annual daytime, evening and night time monitoring at Noise Sensitive Locations (Attachment 7.5 - Noise Emissions)

Due to the number and proximity of data storage facilities in the Grange Castle Business Park and surrounding area, the Environmental Health Service recommends that additional noise monitoring (daytime, evening and night time) is undertaken during the first year of operation of the plant. This is in order to ensure than any cumulative noise impacts have been addressed by proposed mitigation measures and is recommended for the protection of public health.

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Applicant: Amazon Data Services Ireland Ltd

EPA reference: P1170-01

Dear Sir/Madam

Please find enclosed the HSE Consultation report for the above proposal.

If you have any queries regarding this report, the initial contact is Mr. Tom Prendergast, Principal Environmental Health Officer who will refer your query to the appropriate person

Yours faithfully,

Tom Prendergast
Principal Environmental Health Officer