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REGISTERED POST

17 October 2025 Reg. No.: P1222-01

Licence application from Amazon Data Services Ireland Limited, in respect of the installation located at Data Centre Building B1, Kildare Innovation Campus (KIC), Barnhall Road, Leixlip, County Kildare.

Dear Ms Whyte,

The Agency acknowledges receipt on 26 February 2025, of documents pertaining to your licence application in respect of the installation located at Data Centre Building B1, Kildare Innovation Campus (KIC), Barnhall Road, Leixlip, County Kildare.

The activity in respect of which a licence is sought by you is one that *prima facie* must comply with Regulation 9 of the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013 as amended. You have failed to provide the following information to an extent that the Agency can continue to consider your application:

The response received by the Agency on 02 July 2025, has been deemed by the Agency to fail to comply with the requirement under Regulation 10(2)(b)(ii) for the following reasons:

- **Emissions to Air**

Issues relating to Attachment 7.1.3.2 Air Emissions Impact Assessment RFI are provided below.

Installation Operation Assessment (Human Health)

1. It is noted that the meterological data used in the EIAR (dated July 2023) was from 2017-2021, however the updated Air Emissons Impact Assessment RFI (dated July 2025), submitted in response to the Agency's RFI used older meterological data, from the period 2016-2020 for the operation of the installation alone. A satisfactory rationale as to why older meterological data was used in the latest Air Emissions Impact Assessment was not provided.
2. No explanation was provided as to why background levels, location of the installation and the licence site boundary were excluded from the contour plots (Figure 2, Figure 3, Figure 4 and Figure 5).

3. Table 7 shows that the maximum annual NO_2 concentrations, excluding background, was in 2017 with a process contribution of 17.98 mg/m^3, however the legend in Figure 2 shows a max contribution of 12 mg/m^3.
4. No contour plot was provided for 1-hour NO_2 concentrations (measured as 99.8%) as shown in Table 7.
5. No rationale was provided as to why the same background level for 1-hour SO_2 concentrations (measured as 99.73%) and 24-hours SO_2 concentrations (measured as 99.18%) were applied.
6. No contour plot was provided for the annual or 1-hour SO_2 concentrations (measured as 99.73%) as shown in Table 8.
7. Table 9 shows that the maximum 8-hour CO concentrations, excluding background, was in 2018 with a process contribution of 110.31 mg/m^3, however the legend in Figure 4 shows a maximum contribution of 60 mg/m^3.
8. No rationale provided as to why the same background levels for annual PM_{10} concentrations and 24-hours PM_{10} concentrations (measured as 90%) were applied.
9. No contour plot was provided for the annual $PM_{2.5}$ concentrations as shown in Table 11.

<u>Cumulative Operation Assessment (Human Health)</u>

10. Section 3.1.2 of the Air Emissions Impact Assessment RFI (Attachment 7.1.3.2) states that the number of critical generators considered in the Cumulative Operations Assessment was 72 no. of the 80 no. associated with the KIC Masterplan site, which includes all of the generators on the installation. However, the results of the modelling of the 72 no. critical generators only allows for the operation of 12 no. of the 14 no. critical generators within the installation (Building B1) and given the Installation Operation Assessment included for the operation of all 14 no. critical generators, these figures do not correlate.
11. The Cumulative Operation Assessment does not include the 250 hour operation of the house generator associated with the installation or the proposed testing programme.
12. As process emissions data for the energy centre and other 3 no. data centres associated with the KIC Masterplan site have not been provided, it is unclear what number of gas combustion turbines, and what loading, were included in the Cumulative Operations Assessment.
13. The 72 no. critical generators modelled as part of the Cumulative Operation Assessment only allows for the operation of 20 no. of the 22 no. critical generators associated with the other data centres located within the KIC Masterplan site (Building C1, Building C2 and Building C3). Given the energy centre and other data centres will be operated by a separate entity, it is unclear how the applicant will ensure only 20 no. of the 22 no. critical generators within each data centre will operate. Additionally, it is unclear how the applicant will ensure the proposed testing programme for all 80 no. critical generators, aside from the critical generators associated with the installation, will be implemented.
14. Under the Cumulative Operation Assessment, the load bank testing for each of the critical generators for a maximum of one hour each, one generator at a time, sequentially four times per year was carried out at 100% load, however Section 9 of the Non-Technical Summary prepared for the KIC Masterplan site and Section 9.5.5 of the EIAR prepared for the KIC Masterplan site, state a 90% load.
15. No CO, SO_2, PM_{10} or $PM_{2.5}$ modelling was undertaken for the Cumulative Operation Assessment or a rationale provided for its omission. As part of the RFI (dated 09 April 2025), the applicant was asked to include CO modelling, however this was only undertaken for the Installation Operation Assessment.

16. It is unclear if the NO_2 results for the Cumulative Operation Assessment as provided in Table 12 of the Air Emissions Impact Assessment RFI (Attachment 7.1.3.2) was generated as part of the air dispersion modelling undertaken in support of the IE licence application, or if the results are from Table 9.5 of the EIAR.
17. It is noted that the background levels in Table 12 of the Air Emissions Impact Assessment RFI (Attachment 7.1.3.2) were revised to reflect more recent background data and therefore the values differ to those in the EIAR, however it is evident that the contour plots provided as Figure 6 and Figure 7 are taken from the EIAR and have not been updated to reflect the results in Table 12. Examples; Table 12 states that the maximum 1-hour NO_2 concentrations (measured as 99.8%) (including background) in 2020 was 129.4 mg/m^3, however Figure 6 states that the max concentration was 125.4 mg/m^3. Table 12 states that the maximum annual NO_2 concentration (including background) in 2017 was 39.4 mg/m^3, however Figure 7 states that the maximum concentration was 37.4 mg/m^3.
18. It is noted that the 1-hour NO_2 process contribution from the installation when operating alone is higher than the 1-hour NO_2 process contributions for the cumulative scenario. Table 7 of the Air Emissions Impact Assessment RFI (Attachment 7.1.3.2), which provides the results relating to the operation of the installation alone, shows the max 1-hour NO_2 concentration (measured as 99.8%) was 104.95 mg/m^3 in 2018 (excluding background), however for the same year Table 12 (cumulative operation assessment) states that the 1-hour NO_2 concentration (measured as 99.8%) is 98.7 mg/m^3 and the worst case year, 2020, was 101.4 mg/m^3. No explanation is given for these results.
19. Given the proximity of Intel Ireland Limited (P0207-05) to the site and the conditions associated with their IE licence, the inclusion of this other project in the cumulative assessment scenario would have been expected.

<u>Results for Ecological Sites</u>

20. No modelling results were provided to assess the potential effects of the operation of the installation on ecological sensitive sites.
21. The updated Air Emissions Impact Assessment RFI (Attachment 7.1.3.2) only assessed the impact of the Cumulative Operation Assessment on Natura 2000 sites. No other ecological sites, i.e. pNHAs or NHAs were considered. Given the close proximity of the installation to the Royal Canal pNHA (approximatley 1.3 km) it would have been expected that this ecological site was included in the assessment or a rationale provided as to why it was omitted.
22. Only NO_x and nitrogen deposition results were provided for the Cumulative Operation Assessment. No SO_2 modelling was undertaken and no rationale was provided for its omission.
23. Table 15 shows the worst-case year for annual NO_x concentrations at Glenasmole Valley SAC (001209) is 2019 with a process contribution of 0.0061 mg/m^3, however the text says the worst-case year is 2018 and the updated AA Screening says 2018 is the worst case year.
24. The background level of nitrogen deposition at Glenasmole Valley SAC (001209) was not provided.
25. Based on the figures provided in Table 16, the total process contribution from the KIC Masterplan site, which includes the installation, towards nitrogen deposition at the Rye Water Valley/Carton SAC (001398) is 1.4% of the critical load. Even though the applicant has stated *"As the process contribution is equal to 1% of the critical load and there are no other EPA Installations within the defined impact area which can result in significant in-combination effects, no further assessment is required, as per IN2 guidance."* The Agency does not agree that Question 2, Part (i) and Part (ii) of IN2 guidance note have been addressed correctly.

26. Table 16 states that the total nitrogen deposition process contribution at Glenasmole Valley SAC (001209) in 2019 is 0.006 mg/m^3, however Table 4-4 of the updated AA Screening Report says the process contribution at Glenasmole Valley SAC (001209) is 0.004 mg/m^3 and no year has been provided.
27. It appears that the conclusion reached in Section 5.3.3 of the Air Emissions Impact Assessment RFI (Attachment 7.1.3.2) specifically refers to the Natura 2000 sites which were considered in the AA Screening Assessment, due to hydrological connectivity, i.e. *South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Dublin Bay SAC and North Bull Island SPA.* Given Section 5.3 relates to potential impacts on ecological sites due to emissions to air, reference to the the closest and most impacted Natura 2000 sites (Rye Water Valley/Carton SAC (001398) and the Glenasmole Valley SAC (001209) would have been more relevant.

- **Appropriate Assessment Screening Report**

28. Table 4-3 of the AA Screening Report (dated May 2025) has not been updated to reflect changes made to Air Emissions Impact Assessment RFI (Attachment 7.1.3.2).
29. In-combination noise impacts have not been included in the AA Screening Report.

- **Emissions to Sewer**

30. There are discrepancies in the application as to which drainage network the cooling water will discharge to. The RFI Response Item 1 states *"The cooling water discharge drainage network is **now** connected to the foul water drainage network"* however Item 4 of the same document states "*The cooling water discharge drainage network is **not** connected to the foul network".*
31. It is noted from the foul drainage drawing 305131-ARP-ZZ-XX-YE-DR-1005 and the Operational Report that the ACO drainage channel, which captures spills from the top up tank and fuel unloading bays, and cooling water used in the Air Handling Units, will ultimately discharge into Leixlip Wastewater Treatment Plant, however a Section 99E from Uisce Eireann has not been provided nor has communication with Uisce Eireann commenced (as stated in the RFI cover letter dated 02 July 2025).
32. It is unclear from the information provided the extent of monitoring to be undertaken at IF1-1 regarding inbound foul water.
33. It is unclear from the information provided on what action is to be taken in the event inbound foul water entering the site is contaminated.
34. It is unclear from Attachment 7.3.1 Emissions to Sewer if the volume to be emitted at SE1 includes inbound foul water.

- **Stormwater Discharge**

35. It is unclear from the information provided the extent of monitoring to be undertaken at ISW1-1 regarding inbound storm water.
36. It is unclear from the information provided on what action is to be taken in the event inbound storm water entering the site is contaminated.
37. Insufficient information provided in relation to how storm water arising within the installation, which is of unacceptable quality, will be managed. Attachment 7.7.1 Storm Water Monitoring RFI Revision states '*Penstocks will be installed on the outfalls prior to the discharge into the KIC Masterplan site's stormwater network. Once installed, the penstocks will restrict stormwater outflow in the event of a large spill or a fire. Any resulting stormwater of unacceptable quality will be pumped out or otherwise removed from the stormwater network and disposed of appropriately'.*

- **Noise**

38. It is noted that only noise sensitive receptors to the north of the site were selected to calculate predicted noise levels. Such noise sensitive receptors are separated from the site of the installation by the M4. No information was provided as to why noise sensitive receptors located to the east, west and south of the installation were omitted from the updated Noise Emissions Impact Assessment RFI (Attachment 7.1.3.2), yet these were included in the EIAR prepared for the KIC Masterplan site, which includes the installation.
39. As per the Noise Emissions Impact Assessment, Scenario B is representative of an emergency situation and assumes 1 no. house and 14 no. critical generators are continuously running at a 100% load. However, Section 4.2.2 of the updated Operational Report states, '*should an emergency occur, 12 no. critical emergency generators will be in use at any one time, and the remaining 2 no. critical emergency generators will be used as "catcher" generators'.*
40. No distances of noise sensitive receptors to the installation have been provided. As per NG4 the definition of a noise sensitive location is: '*any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or other area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels'.*
41. No cumulative noise assessment was undertaken as part of the Noise Emissions Impact Assessment.
42. Section 6 of the updated Noise Emissions Impact Assessment notes that the modelling included "a noise attenuation wall of 7 metres around the exhaust fans". This noise attenuation wall is not referenced in any other part of the assessment or any other documentation such as the updated Non- Technical Summary (Attachment 1.1), updated Operational Report (Attachment 4.8.1), RFI cover letter (dated 02 July 2025) or in the EIAR prepared for the KIC Masterplan site, which includes the installation. It is also noted that this noise attenuation wall was not referenced in the previous noise emissions impact assessment which was submitted to the Agency 05 March 2025.
43. It is noted that contour plots provided in Figures 5, 6 and 7 have a straight line cut off, this includes one contour plot with noise level in the red (55-65 dB(A)).

- **Fuel Usage**

44. Attachment 4.6.2 Raw Materials, Intermediates and Products does not include the total storage capacity of the entire installation; only the storage capacity of the critical and house generators was provided. Additionally, the volume of diesel and HVO to be used differs to the information provided as part of the RFI, e.g. the updated Non-Technical Summary RFI Revision (Attachment 1.1) states that the annual fuel usage of diesel and HVO is 2,409 tonnes and 2,369 tonnes respectively, whereas Attachment 4.6.2 states the annual fuel usage of diesel and HVO will be 718.04 tonnes and 706.35 tonnes respectively. `

Decision and Reasons for Decision

The Agency has made the decision that it cannot consider your application. The reasons for this are:

i. The Agency assessed your application for compliance with the above referenced regulations and required outstanding information under Regulation 10(2)(b)(ii) of above named Regulations in order to complete the application;
ii. The Agency cannot proceed with its assessment of your application without the referenced information due to the extent of failure to comply with the above referenced requirement under Regulation 10(2)(b)(ii) of above named Regulations.

I advise that having regard to the circumstances of the licence application, and for the reasons outlined in the corresponding Inspector's Report, available for viewing on www.epa.ie, the EPA has decided to grant a refund of 20% of the €16,506 application fee received, i.e., €3,301.

The EPA no longer issues cheques in respect of any refunds we grant to licensees. For us to make payments directly to your bank account, please complete the attached form and return it to licensing@epa.ie.

Guidance regarding the Agency's acceptance criteria is available on the EPA Website.

This is a statutory notice under Regulation 10(2)(b)(ii) to inform you that your application cannot be considered by the Agency.

If you wish to proceed to apply to carry out the proposed activity, please note that a new application will be required.

Yours Sincerely,

Sam Higgins

Water, Energy & Business Support Programme
Office of Environmental Sustainability
Tel: 053 – 9160600

[Encl. 1]

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To: **Gráinne Oglesby**
Attn: Office of Environmental Sustainability: **Date:**

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Regards,

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