


Signed: David Matthews

Date: 02/10/2025

	OFFICE OF ENVIRONMENTAL SUSTAINABILITY
RECOMMENDATION THAT AN APPLICATION CANNOT BE CONSIDERED BY THE AGENCY MEMORANDUM	
TO:	TARA HIGGINS, PROGRAMME MANAGER
FROM:	Naoimh O'Regan WATER ENERGY & BUSINESS SUPPORT PROGRAMME
DATE:	02 October 2025
RE:	Recommendation that an application cannot be considered by the Agency under Regulation 10(2)(b)(ii) of the EPA (Industrial Emissions) (Licensing) Regulations 2013 as amended
Applicant:	Amazon Data Services Ireland Limited
CRO number:	390566
Location/address:	Data Centre Building B1, Kildare Innovation Campus (KIC), Barnhall Road, Leixlip, County Kildare.
Application date:	26 February 2025

Recommendation:

The Programme Manager is asked to APPROVE the recommendation of this memo that the Agency moves to decide that it cannot consider the above referenced licence Application and that a Notice under Regulation 10(2)(b)(ii) of the EPA (Industrial Emissions)(Licensing) Regulations 2013 as amended (hereafter referred to as 'the Regulations'), should be served to the Applicant.

Introduction

The First Schedule of the EPA Act 1992 as amended, indicates that the following class of activity requires a licence:

Class of Activity (under EPA Act 1992 as amended):	2.1 Combustion of fuels in installations with a total rated thermal input of 50 MW or more.
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In relation to the licence application by Amazon Data Services Ireland Limited (P1222-01) for the above listed class of activity, it is noted that the applicant has not provided all of the information required under the Regulations. The correspondence history between the Applicant and Agency is outlined in the 'Assessment' section below.

In accordance with Regulation 10(2)(b)(ii) of the EPA (Industrial Emissions)(Licensing) Regulations 2013 as amended, *'Where the Agency considers that an application for a licence does not comply with any or all of the requirements referred to in subparagraph (a) which relate to the application, it may, as it considers appropriate having regard to the extent of the failure to comply with the said requirements, by notice in writing require the applicant, within such period as may be specified by the Agency, to take such steps, or to furnish such further particulars, plans, drawings or maps, as may be necessary to comply with the said requirements and, where the applicant fails to comply with a requirement under this subparagraph, the Agency may, as it considers appropriate having regard to the extent of the failure, inform the applicant, by notice in writing, of such failure and that the application cannot be considered by the Agency.'*

The 'Assessment' section below examines whether the provisions of Regulation 10(2)(b)(ii) should be used for the above referenced licence application.

Assessment

Amazon Data Services Ireland Limited (ADSIL) applied to the Agency on 26 February 2025 for an Industrial Emissions (IE) Licence for a data centre (referred to as Building B1) located within Kildare Innovation Campus (KIC), Barnhall Road, Leixlip, County Kildare. The KIC Masterplan site received planning permission from Kildare County Council (Ref: 23/60047) to construct 4 no. data centres, 2 no. deep tech buildings and 1 no. energy centre building. This licence application relates to the operation of one of these data centres (Building B1). The proposed installation will be located within the northwest corner of the KIC Masterplan site, and will be leased and operated by ADSIL.

The installation will comprise of one data centre (Building B1) and ancillary elements including 6 no. data storage rooms, admin (including offices, breakroom, fuel unloading area, logistics delivery area, storage, and ancillary areas) and a variety of electrical plant areas / structures including battery storage rooms and mechanical rooms. Car parking, access roads, security fencing / gates, gate houses and landscaping will also be included.

The installation will include 14 no. 7.73 megawatt thermal (MW_{th}) critical emergency generators; 1 no. 2.50 MW_{th} house emergency generator; and 2 no. 0.57 MW_{th} fire sprinkler pumps. The combined thermal input of the installation is 111.9 MW_{th} .

Subject to availability, the preferred source of fuel for the operation of the generators will be hydrotreated vegetable oil (HVO), however where insufficient quantities of HVO are available, diesel or a blend of diesel and HVO will be supplied to the generators.

In relation to the current licence application, at the time of writing 1 no. submission had been received. The submission relates to potential contamination of surface and groundwater, and air, noise and process emissions.

As noted above, the applicant's initial application was received by the Agency on 26 February 2025. Following a review of the documentation submitted in support of the application, the Agency issued a request for further information (RFI) under Regulation 10(2)(b)(ii) of the Regulations on 09 April 2025. The RFI requested additional information to be provided regarding emissions to water, emissions to sewer, emissions to air, planning, BAT / BREF, Appropriate Assessment screening and use of hydrotreated vegetable oil. As part of this RFI the applicant was informed that failure to comply with the request in full and to the satisfaction of the Agency, may result in the Agency issuing a notice in writing that the application cannot be considered.

Extent of failure to comply with relevant Regulations and requirements.

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 meteorological data used in the EIAR (dated July 2023) was from 2017-2021, however the updated Air Emissions Impact Assessment RFI (dated July 2025), submitted in response to the Agency's RFI used older meteorological data, from the period 2016-2020 for the operation of the installation alone. A satisfactory rationale as to why older meteorological 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 NO₂ concentrations, excluding background, was in 2017 with a process contribution of 17.98 µg/m³, however the legend in Figure 2 shows a max contribution of 12 µg/m³.
4. No contour plot was provided for 1-hour NO₂ 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 SO₂ concentrations (measured as 99.73%) and 24-hours SO₂ concentrations (measured as 99.18%) were applied.
6. No contour plot was provided for the annual or 1-hour SO₂ 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 µg/m³, however the legend in Figure 4 shows a maximum contribution of 60 µg/m³.

8. No rationale provided as to why the same background levels for annual PM₁₀ concentrations and 24-hours PM₁₀ concentrations (measured as 90%) were applied.
9. No contour plot was provided for the annual PM_{2.5} concentrations as shown in Table 11.

Cumulative Operation Assessment (Human Health)

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, SO₂, PM₁₀ 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 NO₂ 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 NO₂ concentrations (measured as 99.8%) (including background) in 2020 was 129.4 µg/m³, however Figure 6 states that the max concentration was 125.4 µg/m³. Table 12 states that the maximum annual NO₂ concentration (including background) in 2017 was 39.4 µg/m³, however Figure 7 states that the maximum concentration was 37.4 µg/m³.
18. It is noted that the 1-hour NO₂ process contribution from the installation when operating alone is higher than the 1-hour NO₂ 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 NO₂ concentration (measured as 99.8%) was 104.95 µg/m³ in 2018 (excluding background), however for the same year Table 12 (cumulative operation assessment) states that the 1-hour NO₂ concentration (measured as 99.8%) is 98.7 µg/m³ and the worst case year, 2020, was 101.4 µg/m³. 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.

Results for Ecological Sites

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 (approximately 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 SO₂ 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 µg/m³, 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 $\mu\text{g}/\text{m}^3$, however Table 4-4 of the updated AA Screening Report says the process contribution at Glenasmole Valley SAC (001209) is 0.004 $\mu\text{g}/\text{m}^3$ 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.

As this information has not been provided, the Agency cannot assess the impact of emissions to air, emissions to sewer, storm water discharge and noise emissions from the installation. Having regard to the extent of this failure to provide said information, it is recommended that the application cannot be considered by the Agency.

Refund of application fee

It is intended that a refund of the application fee is processed following the issuing of a cannot consider decision. I advise that, having regard to the circumstances of the licence application, and for the reasons outlined in this memo, the EPA has decided to grant a refund of 20% of the application fee.

This is based on the application having been assessed and a decision issued.

Recommendation

The above referenced application does not comply with Regulation 9 of the Regulations as set out above. The Applicant failed to comply with the above referenced Regulations.

It is therefore recommended that, due to the extent of failure to comply with the above Regulations/requirements:

1. as provided for in Regulation 10(2)(b)(ii) of the EPA (Industrial Emissions)(Licensing) Regulations 2013 as amended, the Agency cannot consider the above referenced application,
2. a Notice is issued to the applicant advising the applicant of same, and
3. refund of application fee as outlined above.

I also recommend that OEE should be notified that a licensable activity may be operational in the absence of a licence or licence application, and that further investigation and enforcement as relevant, may be required.



Naoimh O' Regan
Inspector
Office of Environmental Sustainability