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On behalf of Amazon Data Services Ireland Limited

21 January 2025 Reg. No.: P1186-02

Regulation 10(2)(b)(ii) of the EPA (Industrial Emissions) (Licensing) Regulations 2013, in respect of a licence review from Amazon Data Services Ireland Limited for an installation located at Clonshaugh Business and Technology Park, Dublin 17.

Dear Sir,

I refer to the application for a licence received by the EPA on 31 July 2024.

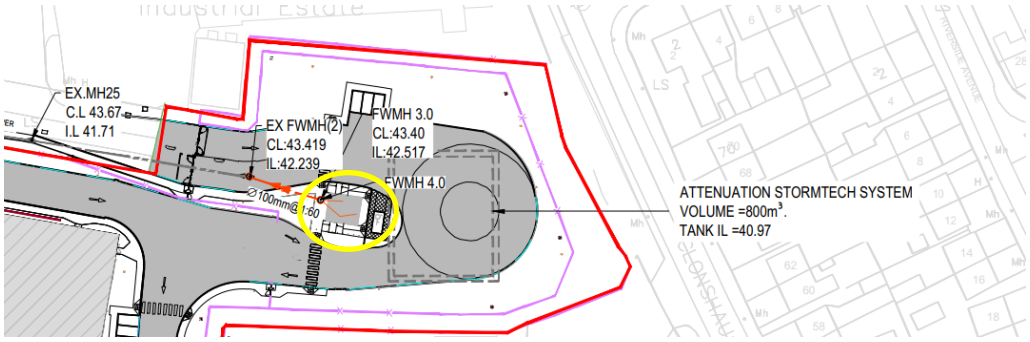
Having examined the documentation submitted, I am to advise that the Agency is of the view that the documentation does not comply with the above mentioned legislation. You are therefore requested, in accordance with the regulations, to supply the information detailed below.

REGULATION 9 COMPLIANCE REQUIREMENTS

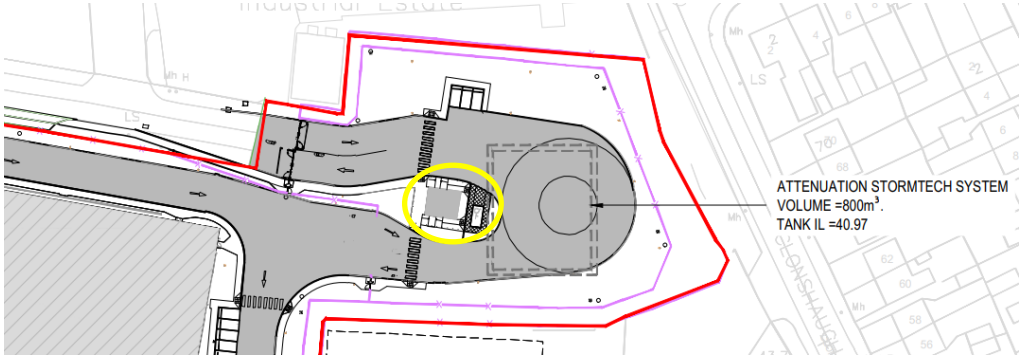
Site Layout

1. Provide a more detailed site layout plan. ***Example*** of detail required: the screen shot taken from the foul water layout plan (Drawing: 21_123F-CSE-00-XX-DR-C–1200) below shows foul water from an area adjacent to the attenuation storm cell (yellow circle has been added to show this area), however the site layout plan (Drawing: 21_123F-CSE-00-XX-DR-C–0002) (see screen shot below) does not identify this area.

Foul water drawing



Site layout drawing



2. Attachment 4-8-3 Complete Baseline Report refers to Building A, please provide further information on this building.
3. Is there a connection between the site containing buildings W, X and Y and the site containing buildings U and V such as service infrastructure, storm water, foul water etc.

Sewer

1. Section 5.2 of the NTS states “There is no process water discharged to the foul water network on site (domestic foul only), therefore no monitoring of the overall sewer discharge is proposed”. However, in other documentation it is noted that emissions to sewer is comprised of domestic effluent and runoff from the tank farms, unloading bays and transformer compound, which have the potential to contain hydrocarbons. Please confirm and update accordingly.
2. Further to the item above, it is shown in the stormwater drawing that **stormwater** from the tank farms serving Building W, Building U and Building V enters the stormwater drainage network as opposed to the foul sewer network. Please update the foul water drawing and stormwater drawing to show the location of all tank farms, unloading bays and transformer compounds for the entire installation illustrating the direction and discharge points for runoff from these areas.
3. Provide a copy of the S99E notification or agreement letter from the IDA, as relevant to this application. Where a S99E has been issued, complete Attachment 7-3-1 Emission to Sewer.
4. In regard to sewer discharge points, the NTS states there is “one to the east of Building Y (emission point SE3) and one to the east of Building X (Emission Point SE4)”, however, this is not what is shown on the foul water drawing. Please update the fould water drawing identifying the discharge point locations.
5. Confirm the class and type of hydrocarbon interceptors to be installed prior to emission point SE4 (east of Building Y) and SE2 (east of Building W).
6. According to the operational report only domestic effluent from Building U and V are directed to the sewer drainage network, please confirm where runoff from the tank farm and unloading bays and transformer compound, if applicable, are directed to?

7. Confirm where foul water from the Newbury Substation and the proposed new substation will discharge to? In the event of foul water entering the installation network, describe how this will be managed?

Stormwater

1. No reference is made in the NTS to residual cooling water being discharged into the stormwater network. However other documentation refers to residual cooling water also being discharged into the stormwater network in addition to runoff. Please clarify.
2. Condition 3.17 of P1186-01 which relates to Evaporative Cooling Water requires *"The licensee shall carry out a study on the feasibility of diverting evaporative cooling water to sewer. The report shall be submitted to the Agency for approval within twelve months of the date of grant of the licence."* Describe what measures to date have been taken to address the discharge of residual cooling water to the stormwater network.
3. It is noted that hydrogen peroxide, which is used for cleaning of AHUs and pipelines, ultimately discharges with the cooling waters into the stormwater system. Provide further information on the expected quantity of hydrogen peroxide to be stored and used on site, frequency of use of hydrogen peroxide and the properties of the residual hydrogen peroxide prior to discharge.
4. Describe how runoff from the area where urea tanks are stored is managed. Update relevant drawings illustrating the direction and discharge points for runoff from these areas.
5. Operational report states "Drainage of rainwater from the top up tank bund south of Building U is directed to the surface water drainage network*".* Identify the location of the top up tank bund on a relevant drawing and describe how runoff on this area is directed and managed.
6. Update the drainage drawings to reflect the class of hydrocarbon interceptors to be installed on the stormwater drainage system prior to discharge.
7. It is noted that the hydrocarbon interceptors are alarmed and connected to the BMS; please describe in detail the response action on site, in the event that these alarms are activated.
8. Describe what treatment is undertaken to the mains water when used as cooling water. Provide details of the composition of the residual cooling water at discharge.
9. Section 4.3.1 of the Operational Report refers to "drainage infrastructure including 2 no. underground attenuation systems". However, Attachment 4-8-3 Complete Baseline Report and drawings submitted as part of the application refer to 3 no. underground attenuation storm cells. Confirm the attenuation measures to be installed onsite.
10. Confirm where stormwater from the from Newbury Substation and the proposed new substation will discharge to? In the event stormwater is entering the installation network, describe how this will be managed?

Energy Use

1. Given the varying figures provided in the documentation, please confirm the quantity (tonnes) of diesel and HVO which will be stored on site and used. In regard to storage capacity, please review the information provided in page 8 and page 12 of Attachment-7-1-3-2 and the information provided in Attachment 4.6.2.
2. Given the varying figures provided in the documentation, confirm the volume of mains water required for the installation and the expected volume of rainwater to be required.
3. Confirm the hours of operation considered in Attachment 4.6.1. Water, Energy Usage.
4. Provide information on the options considered to decrease or offset the use of fossil fuelled energy.

Waste

1. Attachment 8-1-2 states that "Hazardous wastes generated onsite is stored in a covered hardstanding space inside each building or in covered bunds in designated areas external to the building". Identify the location of these designated areas on a relevant drawing.

Noise

1. Provide a drawing which illustrates the location of proposed noise monitoring locations.
2. Provide an updated noise impact assessment which includes more current background noise levels or provide justification for the years selected and why more recent background levels have not been considered.
3. Provide further information on what Scenario A, Scenario B and Scenario C relate to. Include the number of generators considered, run times, loading etc.
4. Under Scenario B, the installation will not comply with the evening and nighttime noise limits. Please describe how the potential for exceedances will be managed and what mitigation measures will be implemented to ensure compliance with the relevant noise limits.
5. The predicted cumulative impact only includes the installation. Update the cumulative noise impacts to include other nearby and adjacent developments.

Planning

1. Update the information on all relevant leases to both sites and outlining the renewal dates and whetherthe leases make provision for decommissioning of building / lands to original baseline site conditions should Amazon abandon / leave the site.

Accidents

1. What is the total quantity in tonnes of diesel and / or HVO stored on site - Attachment 4.6.2 Raw materials, Intermediates and Products has 365 Tonnes of gas oil stored and annual usage of 627 tonnes. However, Attachment 4.7.3 BREF Emissions from Storage has quantities that exceed the COMAH thresholds. See screen shot below:

SCOPE OF BAT

The particular processes and activities at the installation that come within the scope of the conclusions on BAT from the Emissions from Storage BAT reference documents (BREF) are:

- Fuel is stored in multiple locations across the site:

  Existing Installation (Buildings W, X, Y)

  - Bulk fuel is supplied to the emergency backup generator tanks from the Bulk Tank Farm(s). 3 no. 52,000 litre bulk tanks associated with Building W, and 5 no. 54,000 litre bulk tanks associated with Building X and Y;
  - Building W: the emergency generators have 13 no. 2,500 litres double skinned steel day tanks;
  - Building X: the emergency generators have 20 no. 2,500 litres double skinned steel day tanks;
  - Building Y: the emergency generators have 7 no. 2,500 litres double skinned steel day tanks;
  - 2-no. fire pumps at the sprinkler house associated with Building W have 3 no. 1,000 litre tanks for supply to the fire sprinkler pump; and
  - 2-no. fire pumps at the sprinkler house associated with Building X and Y have 3 no. 1,000 litre tanks for supply to the fire sprinkler pump.

  Extended Installation (Buildings U, V)

  - Bulk fuel is supplied to the emergency backup generator tanks from the Bulk Tank Farm. 1 no. 40,000 litre bulk tank associated with Building U and V;
  - Building U: the emergency generators have 10 no. 16,000 litres belly tanks and 1 no. 4,950 litre tank;
  - Building V: the emergency generator has 1 no. 8,500 litres double skinned steel belly tank and 1 no. 1,000 litre day tank; and
  - 2-no. fire sprinkler pumps at the sprinkler house associated with Buildings U and V have 2 no. 450 litre tanks and 1 x 900 litre tank for supply to the fire sprinkler pump.

- Fuel pipelines above ground are Carbon Steel, and below ground are Close Fit PLX (dual-contained pipe system).
- Urea is stored on site for the SCR abatement system for the extended Installation:
  - Building U: 10 no. single-skinned urea storage tanks (each 800 litres useable capacity, 895 litres total capacity);
  - Building V: 1 no. single-skinned urea storage tank (1,275 useable capacity, 1410 litres total capacity).

Due to the Class of Activity being applied for it is the EPA's expectation that an applicant has regard to these Horizontal BAT Conclusions for emissions from storage.

Air

In Attachment 7-1-3-2 Air Emissions Impact Assessment dated 01 July 2024:

1. It is stated that "The closest sensitive ecological area is the Santry Demesne Proposed NHA (000178) which is located within 1 km south-west of the subject site. Dispersion modelling of NO_X emissions from the installation has been conducted within the Santry Demesne pNHA to determine the potential impact to vegetation as a result of emissions from the back-up generators on site."
   a. Confirm that the assessment was not only performed for Santry Demesne pNHA and that the assessment included all other relevant ecological receptors.
   b. Provide the results of the assessments for both the closest ecological receptor and the ecological receptor which modelling shows may have the potential to be most impacted (noting these may or may not be the same ecological receptor).
2. The executive summary states that "There are no significant impacts predicted for any other Natura 2000 SPAs and SACs, as these are all further from the facility than the Baldoyle Bay SAC." It is noted that section 2.3 states that Baldoyle Bay SAC is 5km east of the site, South Dublin Bay and River Tolka Estuary SPA is situated almost 4 km to the south and North Dublin Bay and North Bull Island are located over 4 km to the east.
   a. Confirm that the assessment was not only performed for Baldoyle Bay SAC and that the assessment of potential impacts on SACs and SPAs included all relevant SACs and SPAs.
   b. Provide the results of the assessments for both the closest SPA/SAC and the SAC/SPA which modelling shows may have the potential to be the most impacted (noting these may or may not be the same SAC/ SPA)?

3. Confirm what loading was used in the modelling for the generators during emergency operation.
4. It is noted that Attachment 1-2 Non-Technical Summary refers to air modelling results based on 72 hours operation. Attachment 7-1-3-2 Air Emissions Impact Assessment states that "The UK EA assessment methodology determined that, in any year, the generators can run for 137 hours using diesel fuel before there is a likelihood of an exceedance at the nearest residential receptor (at a 98^{th} percentile confidence level)" and "The UK EA assessment methodology determined that, in any year, the generators can run for 80 hours before there is a likelihood of an exceedance at the nearest residential receptor (at a 98^{th} percentile confidence level." Attachment 7-1-3-2 Air Emissions Impact Assessment also models for 150 hours per year.
    a. Provide clarification on the number of hours requested as part of the application, and
    b. Provide justification on why those hours are acceptable for both UK and USEPA assessment methodology.
5. Diagram 1 appears to include a building labelled as Z and does not include buildings labelled as U and V. Update this diagram to ensure that building identification is accurate.
6. Section 4.0 Background concentrations of pollutants:
    a. Provide further justification on why an annual mean SO_2 of 4 $\mu g/m^3$ is appropriate considering the data from Dublin Airport shows an annual mean of 5.8 $\mu g/m^3$ in 2022.
    b. Provide the method used to calculate the 1-hour background for SO_2 and the 24-hour background concentration for SO_2. Justify why the background figures used are appropriate.
7. It is noted that figures such as "Figure 2 Emergency Operations - Maximum 1-Hour NO_2 Concentrations (as a $99.8^{th\%ile}$) ($\mu g/m^3$) (including background concentrations)" include modelling results that according to the legend on the figure should be shown in red. However, no red colouring is visible on the figure. Update contour plots to ensure that the image is aligned to legend provided for the figure.
8. It is noted that some contour plot figures include background while others exclude background. Update all contour plot figures to include background.
9. HVO is listed in the application as a potential fuel. Update Attachment-7-1-3-2 Air Emissions Impact Assessment to reflect assessment of potential impacts when HVO is the fuel used.
10. Clarity the source and nature of the HVO feedstock and outline how you intend to comply with the requirements of REDIII Directive.
11. Where UCO (used cooking oil) or other waste materials are employed as feedstock for HVO generation, please demonstrate that the use of this waste material for this purpose complies with the requirements of the Waste Framework Directive.

Appropriate Assessment

1. Provide updated information regarding appropriate assessment of potential noise and air impacts from the overall development (to include existing and proposed development) and potential in-combination effects with other developments.

BAT

1. Attachment 4-7-4 Industrial Cooling Systems BAT Reference Document submitted as part of the application contains track changes. Provide the final version of this document that is to be considered as part of the application.
2. It is noted that all the backup generators associated with Building U and Building V, with the exception of the 1 no 2.19 MW_{th}, will use SCR.
    a. What type of medium combustion plant under the Medium Combustion Plant Regulations applies to the backup generators i.e. are they "diesel engines", "other engine", "other medium combustion plant" etc.
    b. Is there a proposal to monitor NH_3 and SO_3 as SCR will be used.
    c. Provide an air impact assessment with regard to NH_3.

In addition to the above, please also provide an updated non-technical summary (Application Form, and EIAR where applicable) to reflect the information provided in your reply, insofar as that information impinges on the non-technical summary.

The requested information should be submitted to the Agency within 6 weeks of the date of this notice, in order to allow the Agency to process and determine your application.

It should be noted that the eight-week period within which the Agency is to decide the proposed determination will commence on the day on which this notice has been complied with. If you have any further queries please contact licensing@epa.ie.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. Where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

Your response to this request is to be submitted via EDEN. Guidance on how to use this portal is available on the EPA website at IE Licence application guidance | Environmental Protection Agency (epa.ie).

Note that where the licensee fails to comply with this requirement in full and to the satisfaction of the Agency, the Agency may consider, having regard to the extent of the failure, whether the application can be considered pursuant to Regulation 10(2)(b)(ii) of the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013 as

amended, and may issue a notice in writing that the application cannot be considered by the Agency, outlining the extent of such failure. Alternatively, where there is a failure to comply with this requirement the Agency may activate Regulation 19 of the EPA (Industrial Emissions)(Licensing) Regulation 2013, which pertains to Withdrawal or Abandonment of an application for licence.

Please direct any queries to licensing@epa.ie.

Yours Sincerely,

Brid Horgan

Water, Energy & Business Support Programme

Office of Environmental Sustainability

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