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Tasha Malik-Agrawal
Environment Agency
Quadrant 2,
99 Parkway Avenue
Sheffield,
S9 4WF

17th June 2026

**Our Ref: SOL_25_P007_ENG**

Dear Tasha,

RE: ENGIE RENEWABLE GASES UK LTD, HOME FARM GRANGE AD FACILITY – EPR/NP3829LW/A001

Further to your letter dated 27th May 2026, please find below a response to each of your questions in turn.

## *Section 1 – BAT and Appropriate Measures*

1. *Odour abatement*
   a) *Provide the flow/load data and calculations which demonstrates there will be adequate destruction of odorous compounds.*

**Response:** Since submission of the previous Schedule 5 response, the odour control unit supplier has been updated. Exeon will now supply the OCU rather than the previously stated Centrair. The OMP has been updated to reflect this and is provided in Appendix A of this letter. Provision of flow/load data and detailed design calculations is included within the Technical Note provided by Exeon and included in Annex E of the updated OMP_I4.

2. *Off-site lagoons*
   *The off-site lagoons are to be utilised and built to the same standard and requirements as the onsite lagoons. No information has been provided on their location and proximity to sensitive receptors.*
   a) *Provide an assessment that accounts for the emissions from the operation of the offsite lagoons, including their location and proximity to sensitive receptors, including:*
      i. *Odour Assessment*
      ii. *Bioaerosol Risk Assessment*

**Response:** The specific offsite lagoons which will be utilised by the plant as storage are yet to be constructed. Design, location and construction will be in accordance with the relevant BAT and appropriate measures. As such, we request that this information be required as a pre-operational condition of the permit.

3. *Flare of biogas*

*In your Not Duly Made response, dated 27th January 2026, you stated that contingency storage of biogas allows up to 3.22 hours prior to potential flare use.*

a) *Clarify if the contingency storage of biogas for 3.22 hours is for the gas storage, the digester and post digester all together*

**Response:** The 3.22 hours refers to the gas storage, digester and post digester together.

## *Section 2 – Carbon Capture*

4. *Venting of CO2*

a) *Clarify why there is constant venting of CO2 from the CO2L unit during normal operation.*

b) *Clarify why there is no 'other than normal operations' venting scenarios.*

c) *Update and resubmit the assessment of the impact of venting, for both routine/planned and unplanned/emergency emission scenarios, that includes the following:*

i. *Clarification of how and when venting will occur in the process / phase.*

ii. *Clarification if simultaneous releases are likely.*

iii. *Explain venting control strategies and proposed process monitoring*

*Note: Include if the vents are fully open or only partially open and how venting will be monitored.*

iv. *Release duration (h) and frequency (h/y)*

*1.Explain the release duration at any one time and within a year.*

v. *Upstream process pressure (atm), temperature (DegC) and CO2 phase*

vi. *Maximum mass flow (kg/s) e.g., fully open vent*

*1.Explain the mass flow release estimation method/rationale*

vii. *Exhaust velocity (m/s)*

*1.Explain the exhaust velocity estimation method/rationale*

viii. *Estimated maximum concentration off-site and at worst-case receptors (ppm)*

*1.Discuss uncertainty, the risk of unrepresentative modelling and mitigation strategy*

*2.Explain the conservative assumptions incorporated in the modelling study*

ix. *.Contour plots or concentrations footprint map*

**Response:** As the carbon capture unit was proposed as a future addition to the sites operations, this level of detail is not yet available. As such, the operator intends to remove this from the permit application, with the understanding that the permit will require variation to add carbon capture in the future.

The standard operation of the Biogas Upgrading Unit will therefore vent $CO_2$ from the stack, as is normal operation for the majority of biomethane sites in the UK at present. The AQA submitted with the application included the scenario of no carbon capture, concluding no significant impact to either human health or the environment.

## *Section 3 – Waste Accepted at the Site*

5. *Animal by-product (ABP) Regulations*

*The facility accepts waste that falls under Category 2 of the ABP Regulations. The waste code of relevance is 02 01 06 - Animal faeces, urine and manure (including spoiled fully biodegradable animal bedding), as manure is a Category 2 ABP.*

*a) Assess whether approval from the Animal and Plant Health Agency (APHA) is required.*

*Notes: Animal by-product categories, site approval, hygiene and disposal - GOV.UK provides guidance on what animal by-products are and what is required if your site handles them.*

*Notes: The guidance lists the sites that require approval which includes biogas/anaerobic digestion sites..*

**Response:** The only ABP accepted at the facility will be Category 2 manure (EWC 02 01 06). The operator notes the derogations available under Authorisation D2 relating to the transformation into biogas of certain Category 2 materials following or without prior processing, together with Authorisation B1 permitting the application to land of Category 2 manure without processing.

On this basis, the proposal does not include the acceptance of catering waste or higher-risk ABPs, and standard pasteurisation requirements are not considered applicable.

The operator has confirmed with the APHA that no Article 23 registration or other approval is required for the manure-only biogas operation.

*6. Control of Major Accident Hazards (COMAH) Regulations*

*a) Assess whether the facility is subject to COMAH regulations as a lower-tier COMAH establishment.*

*Notes: Control of Major Accident Hazards (COMAH) - HSE provides the guidance for COMAH Regulations 2015 for duty holders and site operators*

**Response:** The operator has undertaken detailed screening against the COMAH regulations to ensure that the facility will fall below the relevant trigger thresholds for a Lower Tier COMAH facility.

In relation to the Home Farm Grange anaerobic digestion facility, key dangerous substances that may be present onsite include biogas (in both raw and treated form), propane/LPG, diesel and digestate. At present and under the current versions of the CLP Regulations, digestate is not classified as an aquatic pollutant and is therefore not considered further. Should this position change, digestate may also become a material of concern for the site and require consideration under the CLP Regulations.

Dangerous substances stored onsite must also be considered in aggregate. The aggregation rule is set out in Note 4 of Schedule 1 of the COMAH Regulations.

Of most relevance to this site are the Lower and Upper Tier thresholds for '*Flammable Gases*' in relation to the raw and treated biogas present at the Anaerobic Digestion facility.

Biogas is classified as a flammable gas, Category 1, in hazard category P2 FLAMMABLE GASES of Part 1 Schedule 1 of the COMAH Regulations, which has trigger thresholds of 10 and 50 tonnes for Lower and Upper Tiers respectively.

It is important when classifying the hazard characteristics of the biogas mixture that the all components are considered, not simply the methane content. As such, upgraded biogas (aka biomethane) may be classified instead under Entry 18 of Part 2 of Schedule 1 (as stated in paragraph 19 of Part 3 of Schedule 1):

*'19. Upgraded Biogas.*

*For the purposes of these Regulations, upgraded biogas may be classified under entry 18 of Part 2 of this schedule where it has been processed in accordance with applicable standards for purified and upgraded biogas ensuring a quality equivalent to that of natural gas, including the content of Methane, and which has a maximum of 1% Oxygen.'*

This therefore would apply the trigger thresholds for 'Liquid flammable gases, Category 1 or 2 (including LPG) and natural gas' which are 50 and 200 tonnes for Lower and Upper Tiers respectively.

These thresholds are presented in the table below.

Table 1: Summary Extract COMAH Regulations 2015 Schedule 1

| | | Qualifying Quantity | | |
|---|---|---|---|---|
| Schedule 1 | Dangerous Substance | Lower Tier | Upper Tier | Applicable to: |
| Part 1 | P2 FLAMMABLE GASES | 10 | 50 | Raw biogas & Propane |
| Part 2 | 18. Liquified flammable gases, category 1 or 2 (including LPG) and natural gas | 50 | 200 | Upgraded biogas |
| | 34. Petroleum products including diesel | 2,500 | 25,000 | Diesel |

The facility has undertaken detailed assessment to ensure that these thresholds in aggregate are not breached.

*Section 4 – Permit boundary*

*7. Low Farm AD (waste operation permit: EPR/EB3305FS) is located to the east of the proposed site location.*

*a) Confirm that the site boundary for Home Grange Farm (especially to the east) does not overlap with the Low Farm AD permit boundary.*

**Response:** It is confirmed that the permit boundary for Home Farm Grange and Low Farm AD facility will not overlap. Please see the figure below.




*Figure 1 Low Farm Boundary in Green and Home Farm Grange Boundary in Red*

In addition, the operator would like to inform the EA that their registered office address has changed since permit application. The new address is now:

Engie Renewable Gases UK Limited

Broadgate Tower Floor 4,

20 Primrose Street,

London,

England,

EC2A 2EW

Should you have any further questions in relation to the above please do not hesitate to contact me.

Yours sincerely,



Emily Hingston

Annex A – Updated OMP