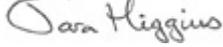


This Report has been cleared for submission to Director by Programme Manager Tara Higgins

Signed:  Date: 15th December 2025



MEMO

Office of
Environmental
Sustainability

To: Director Tom Ryan	Date: 12 January 2026
From: Barry O'Connor, Inspector, Office of Environmental Sustainability	
Subject: Appeal of Air Pollution Act licence granted to Best Mate Pet Cremation Ltd., Ballycullane, Glin, Co. Limerick, V94 DPV4	
Appeal Registration No.: E0015-01	

Recommendation: The Director is asked to **APPROVE** the decision recommended hereunder with respect to the appeal submitted to the Agency in relation to the Air Pollution Act licence (A2) granted to Best Mate Pet Cremation Ltd, Ballycullane, Glin, Co. Limerick, V94 DPV4 for atmospheric emissions from the operation of a nearby Pet Crematorium at Ballycullane, Glin. Co. Limerick, V94 81C0.

1 Background

Air Pollution Act licences are single media licences for certain industrial processes not included in the First Schedule of the EPA Act 1992 as amended, and are granted by Local Authorities under the Air Pollution Act 1987 ("the Act") as amended. The industrial processes requiring an Air Pollution Act licence are listed in the Third Schedule of the Air Pollution Act, 1987 as amended. Under the third schedule of the Air Pollution Act, 'the incineration of solid or liquid wastes' is an industrial process and under Section 30(1) 'a person shall not operate industrial plant, other than existing industrial plant, on or after such day as may be prescribed save under and in accordance with a licence under this Act that is in force in relation to the plant'. In addition, under the First Schedule it is stated that 'this act shall apply in particular to smoke, gas, aerosols and dust consisting of' inter alia 'sulphur dioxide' 'oxides of nitrogen' and 'carbon monoxide'.

Under Section 34(1) of the Air Pollution Act, an appeal may be made in relation to the granting or refusing of a licence under the Act. As of 31 August 2015, the Environmental Protection Agency ("the Agency") is the statutory authority for appeals in relation to Air Pollution Act licences. Prior to this date the statutory authority for these appeals was An Bord Pleanála.

The appeal was considered by Inspectors Barry O'Connor and Gemma Heenan of the Office of Environmental Sustainability and Aimee Carroll of the Office of Environmental Enforcement.

The licence relating to this appeal is for the operation of a pet crematorium, Best Mate Pet Cremation Ltd., at Ballycullane, Glin, Co. Limerick, V94 81C0. The site is located off the L1233 road, at an existing 57.6 m² stable building and is proposed to be converted into a crematorium

for domestic pets only. An Addfield PET200 low-capacity cremator with an associated single stack emission point at 5.3 m above ground level for waste gases, cold store area and processing room is proposed. Following cremation, a cremulator is used for the remains with the ash subsequently collected for placement in an urn, to be returned to its owner. The surrounding area is considered to be predominantly grassland with individual houses (103 m southwest and 125 m northwest) and farm buildings located nearby. The closest river is the River Farranmiller, 40m to the west and the closest protected area is c.1.8 km to the north, the Lower River Shannon SAC.

An Air Emissions Licence with conditions, Ref. No. A2 was granted by the Local Authority, Limerick City and County Council on 07 April 2025.

Emissions from the plant include the following:

- Air emissions of nitrogen oxides, sulphur dioxide, carbon monoxide, carbon dioxide, hydrogen chloride, Total VOC as carbon, NCVOC, CH₄, and dust from the exhaust stack.
- Noise (out of scope, was considered by the Planning Authority).
- Odour (out of scope, was considered by the Planning Authority).

Modelling was carried out by Verde Environmental Consultants Ltd., using an AERSCREEN air dispersion model to assess the impact of the air emissions from the proposed crematorium site under particular criteria.

2 First Party Appeal

The Agency received one first party appeal against the decision of Limerick City and County Council to grant the licence. The Agency did not receive any submissions or observation on this appeal.

Type	Name	Date received
First party appeals	Verde Environmental Consultants Ltd., on behalf of Mr. Paul Horan of Best Mate Pet Cremation Ltd.	01 May 2025

The Agency's consideration of the appeal is limited to the appeal of three conditions attached to the licence. The Agency has considered the appeal to the Air Emissions Licence (A2) and has provided appropriate directions to the Local Authority relating to the granting of the licence. The issues raised in the appeal are dealt with below.

3 Consideration of the appeal

3.1 Emissions to air

The licensee objects to Condition 5.1 and Condition 6.1 in the Air Emissions Licence, with regard to Emission Parameter Limits and continuous Emission Monitoring requirements respectively and is seeking for them to be amended.

The licensee outlines that:

- There is no rationale provided for the selection of the specific parameters nor their frequency to be monitored.

- The Air Screening Assessment report outlines that all predicted ground-level pollutant concentrations were 'significantly below relevant Environmental Assessment Levels'.
- The results 'fall well within the EPA's recommended threshold of 5% of the applicable Environmental Assessment Levels'.
- The EPA 2024 Informative Inventory Report: Air Pollutant Emissions 1990-2022 states 'that emissions from pet crematoria are considered negligible'.
- The emission monitoring requirements are disproportionate given the scale of the operation (up to 9 pets per day) and results of the air dispersion modelling.
- Condition 6 is 'potentially undermining the commercial viability' due to a 'significant financial burden' from a requirement for monthly dust analysis and the continuous monitoring of gas concentrations and volumes.

Condition 5.1 is as below:

Under no circumstances shall the following parameters be exceeded (Note that "Nm³" denotes "Normal" cubic metres").

Pollutant	Limit Type	Value
Carbon Monoxide	8 - hour limit for protection of human health	10,000 µg/Nm ³
Dust (by Weight)	By Weight	0.35g/m ² /day
Dust (by Volume)	By Volume	50mg/Nm ³
Emission Temperature	At Flue Exit	150 C
Emission Volume	Volumetric Concentration	100,000 Nm ³ /hr
Nitrogen Oxides	Volumetric Concentration	450 mg/Nm ³
Particulate Matter (as PM10)	24-hour limit for protection of human health - not to be exceeded more than 35 times/year	50 µg/m ³ PM10
	Annual limit for protection of human health	40 µg/m ³ PM10
Particulate Matter (as PM2.5)	Annual limit for protection of human health	25 µg/m ³ PM2.5
Sulphur Dioxide	Volumetric Concentration	500 mg/Nm ³

Condition 6.1 is as below:

The licensee shall arrange for a comprehensive monitoring programme to be implemented in accordance with the requirements outlined below. Any requirement may amended at the discretion of the Licencing Authority.

Measurand	Means	Frequency
Carbon Monoxide	Flue Gas Analyser	Continuous: real time monitoring at a terminal on site.
Dust (by weight)	Berghoff Gauges	Monthly: analysis by a competent laboratory.
Nitrogen Oxides	Flue Gas Analyser	Continuous: real time monitoring at a terminal on site.
Emission Temperature	Thermometer	Continuous: real time monitoring at a terminal on site.
Particulate Matter (as PM10)	Gravimetric Analysis	Monthly: analysis by a competent laboratory.
Particulate Matter (as PM2.5)	Gravimetric Analysis	Monthly: analysis by a competent laboratory.
Sulphur Dioxide	Flue Gas Analyser	Continuous: real time monitoring at a terminal on site.
Volumetric Flow Rate	Pitot Tube	Continuous: real time monitoring at a terminal on site.

Assessment of the appeal

The operator is proposing to use a modern European Pet Cremation machine, the Addfield 200 cremator, which is designed for domestic pets under 50 kg (hamster up to large St Bernard) with a chamber size of 0.63 m² and an annual carcass tonnage from 2 to 6 tonnes.

It is noted that the appellant in their letter states that the crematorium is for domestic pets, including dogs, cats and other small animals (Category 1 animal by-products).

The air modelling results in the Air Screening Report (Jan 2025) document record that all modelled parameters are within the 5% threshold for "significant impact" as per the 2020 EPA Air Dispersion Guidance Note AG4. This included an assessment of the predicted worst case 1 hour and Annual Average ground level concentrations at the nearest sensitive receptors, with the result documenting less than 0.9% of 1-hour assessment limits, and less than 0.05% of annual assessment limits. The existing air quality in the vicinity of the site is 'good' in terms of the Air Quality Index for Health, this is not modelled to change with the proposed facility operating to its maximum.

With regard to Conditions 5 and 6, no background is provided by the Local Authority with regard to the requirement for the permit holder to carry out continuous monitoring of gas concentrations and volumes. However, some rationale is provided from a line in a letter dated 03rd April 2025 by Limerick City and County Council's executive engineer who states '*I have drafted the conditions in the context of this facility being sited in an agricultural area and the need to protect the food chain*'. No further reference or assessment is documented in the planning documents with regard to food chain considerations.

There are additional licence restrictions specific to air emissions from the facility including that:

- Operating times are restricted to Mon-Fri 8am to 8pm and Saturday 8am to 4pm.
- No more than 10 cremations shall be initiated each calendar day.
- The plant shall not be operated at any time during conditions of heavy fog or mist conducive to the creation of smog.
- Require the submission of monthly reports to the licencing authority summarising operating hours and monitoring results for each calendar month.
- Require records of all monitoring and maintenance undertaken on the plant to be kept on site for a rolling five-year period.
- Require records of the operating hours of the plant to be maintained for a rolling five-year period.

A review of the air modelling report by the Agency's Air Enforcement Team concluded that the conditions set by the Limerick City and County Council may be overly conservative and not directed to target the particular area of concern documented, i.e. the food chain.

Air dispersion modelling was undertaken for the facility by Verde Environmental Consultants Ltd. using mass emission rates for Hydrogen Chloride, VOCs, Particulates, and Carbon Monoxide, omitting NO_x and SO₂, but was in line with Environmental Assessment Levels (EALs) as outlined in the Defra (UK) Process Guidance Note 5/2 Statutory Guidance for Crematoria (2021), which lists chemicals of potential concern associated with a crematorium.

The report outlines that ground level concentration comparison with the EALs is as per the EPA Guidance Note (AG4) Air Dispersion Modelling from Industrial Installations (2020).

The licence holder also provided air monitoring data for the same model cremator located at an alternate site in France. This included data for Hydrogen Chloride, Total VOC as Carbon, Total Particulate Matter/Dust, Carbon Monoxide, as well as results for Oxygen, Water Vapour,

Stack gas velocity, volumetric flow rate (actual), stack diameter, stack gas temperature and % Oxygen reference level.

Regarding a concern about a threat to food chain integrity, neither dioxins and furans known as persistent pollutants were addressed in the Air Screening Model, nor were they requested to be addressed by Limerick City and County Council.

In addition to the Air Licence conditions, planning permission (Register number 24/42) also sets conditions on the facility such as:

- 'If during operations, the operational temperature and time requirements are not in accordance with the operating specification, no processing shall be undertaken until appropriate measures are taken to restore the operating temperature'.
- 'Annual service and certification of equipment, and independent calibration shall be undertaken, and record of same retained for inspection by the Planning Authority, if required'
- 'Records of batch throughput shall be maintained and shall be sufficient to demonstrate the operation of the unit complies with this batch throughput machine specification submitted with the application'.

The applicant must also register with the Department of Agriculture, Food and the Marine for the use of the low-capacity incinerator, for which it has received approval (No. INCIN-COM 48 refers).

It is considered by the Agency that a comprehensive air emission monitoring programme could be implemented, but in accordance with a reduced frequency of monitoring than proposed in the licence. Similar pet crematorium licences would not have continuous monitoring requirements.

The Air Pollution Act 1987 Air Quality Standards Section 54(1)(3) states that '*A local authority may require the occupier of any premises, other than a private dwelling, from which there is an emission to carry out such monitoring of the nature, extent and effect of the emission and of the air quality as the local authority consider necessary and to keep and to supply to the local authority such records of the monitoring as the local authority consider necessary.*', however it does not stipulate this must be continuous monitoring and the Agency has considered the nature, extent and effect of the emission in its considerations.

Recommendation

Replace Condition 5.1 with the following:

Under no circumstances shall the following parameters be exceeded (Note that "Nm³" denotes "Normal cubic metre")

Pollutant	Limit Type	Value
Carbon Monoxide	8 hour limit for protection for human health	10,000 µg/Nm ³
Dust (By Weight)	By Weight	0.35 g/m ² /day
Dust (By Volume)	By Volume	50 mg/Nm ³
Emission Temperature	At Flue Exit	150°C
Emission Volume	Volumetric Concentration	100,000 mg/Nm ³
Nitrogen Oxides	Volumetric Concentration	450 mg/Nm ³
Particulate Matter (as PM ₁₀)	Annual limit for protection of human health	40 µg/m ³ PM ₁₀

Particulate Matter (as PM _{2.5})	Annual limit for protection of human health	25 µg/m ³ PM _{2.5}
Sulphur Dioxide	Volumetric Concentration	500 mg/Nm ³

(The above denotes a removal of PM₁₀ '24-hour limit for protection of human health – not to be exceeded more than 35 times/year' and amalgamation of the PM₁₀ pollutant value from 50 to 40 µg/m³.)

Replace Condition 6.1 with the following:

Measurand	Means	Frequency
Carbon Monoxide	Flue Gas Analyser	Annually
Dust (by weight)	Berghoff Gauges	Annually: Analysis by a competent laboratory
Nitrogen Oxides	Flue Gas Analyser	Annually
Emission Temperature	Thermometer	Annually
Particulate Matter (as PM ₁₀)	Gravimetric Analysis	Annually: Analysis by a competent laboratory
Particulate Matter (as PM _{2.5})	Gravimetric Analysis	Annually: Analysis by a competent laboratory
Sulphur Dioxide	Flue Gas Analyser	Annually
Volumetric Flow Rate	Pilot Tube	Annually

In addition, it is noted that Condition 8.1 documents a requirement to submit monthly reports to the Licencing Authority:

'The Licensee shall submit monthly report to the Licencing Authority, summarising operating hours and monitoring results for each calendar month by no later than the 20th day of the following calendar month. Any exceedances shall be highlighted and explained. The report author shall provide an account of any remedial and/or preventative action taken in respect of each exceedance.'

Due to the proposed changes to Condition 5.1 and 6.1, it is recommended to alter Condition 8.1 to state:

'The licensee shall submit an annual report to the Licencing Authority, summarising operating hours and monitoring results for the previous rolling twelve-month period. Any exceedances shall be highlighted and explained. The report author shall provide an account of any remedial and/or preventative action taken in respect of each exceedance.'

3.2 Flue Height Stack

The licensee objects to Condition 3 of the Air Pollution Act Licence with regard to the proposed single exhaust flue stack having to discharge its emissions at a minimum height of 10 metres above ground level.

Condition 3 states that 'the exhaust flue stack shall be configured so as discharge gases at a minimum height of 10m (32' 10") relative to the surrounding ground level. The Licencing Authority reserves the right to instruct that this height be altered, at its discretion.'

The licensee states in its appeal that planning permission was granted permitting a flue of 5.2 metres, which they say is a direct contradiction to the licence condition.

Assessment of the appeal

The Air Screening Model requires site-specific stack input parameters to carry out the dispersion modelling and a simulated 5.2 m from ground height single stack flue was applied in the model, as well as specific parameters for stack diameter, exit velocity and gas temperature.

As previously noted, this document recorded that all modelled parameters are within the 5% threshold for "significant impact" as per the 2020 EPA Air Dispersion Guidance Note AG4. A similar pet crematorium using the same cremator machine, Peacefull Paws, was granted planning permission in 2021 for a non-rural town centre based application, this planning came with air modelling by Verde Environmental Consultants Ltd and a modelled stack height of 5 m.

I recommend editing the stack height limitation to 5.2 m to match the stack height stipulated in the planning permission, Register number 24/42, and the stack height modelled in the air emissions model.

Recommendation

Amend Condition 3 with the following:

3.0 The exhaust flue stack shall be configured so as discharge gases at a minimum height of 5.2 m (17' 1") relative to the surrounding ground level. The Licencing Authority reserves the right to instruct that this height be altered, at its discretion.'

4 Appropriate Assessment

Appendix 1 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the industrial plant, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European sites at Lower River Shannon SAC (Site Code 002165), River Shannon and River Fergus Estuaries SPA (Site Code 004077) and Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004161).

The installation is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the installation, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the industrial plant was not required.

This determination has been made in light of the following reasons:

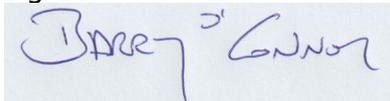
- The installation is not located within any European Sites and there are no designated sites within 1.8 km of the installation. The nearest site Lower River Shannon SAC (Site Code 002165) is located c1.8 km to the north of the installation.

- European sites and their qualifying interests are considered outside of the zone of influence of air and noise emissions modelled as arising at the installation. The modelling demonstrated that emissions will not cause breaches of relevant air quality standards for humans or vegetation at or in the vicinity of the plant. Therefore, it is considered that air emissions will have no significant adverse effects on the qualifying interests of any European Site.
- Given the nature and scale of emissions, the activity will not have a significant effect on European Sites.

5 Overall recommendation and notes

It is recommended that the Agency, in accordance with Section 34 of the Air Pollution Act 1987 as amended, direct Limerick City and County Council to grant the licence (Reference A2) under the Air Pollution Act 1987 as amended, to Best Mate Pet Cremation, for atmospheric emissions from the operation of a Pet Crematorium at Ballycullane, Glin, Co. Limerick, V94 81C0 subject to the amendments detailed in this report.

Signed:

A handwritten signature in blue ink that reads "Barry O'Connor". The signature is written in a cursive style and is placed on a light blue rectangular background.

Barry O'Connor
Inspector OES

Appendix 1 Appropriate Assessment

Table 1: List of European Sites assessed, their associated qualifying interests and conservation objectives.

Site Name and Code	Distance to SAC	Qualifying Interests (* denotes priority habitat)	Conservation Objectives
Lower River Shannon SAC (002165)	1.8km North	<p>Habitats</p> <p>1110 Sandbanks which are slightly covered by sea water all the time</p> <p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1150 Coastal Lagoons</p> <p>1160 Large shallow inlets and bays</p> <p>1170 Reefs</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated Sea cliffs of the Atlantic and Baltic Coasts</p> <p>1310 Salicornia and other annuals colonising mud and sand</p> <p>1130 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</p> <p>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p>Species</p> <p>1029 <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel)</p> <p>1095 <i>Petromyzon marinus</i> (Sea Lamprey)</p> <p>1096 <i>Lampetra planeri</i> (Brook Lamprey)</p> <p>1099 <i>Lampetra fluviatilis</i> (River Lamprey)</p> <p>1106 <i>Salmo salar</i> (Salmon)</p> <p>1349 <i>Tursiops truncatus</i> (Common Bottlenose Dolphin)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p>	NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165 Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
River Shannon and River Fergus Estuaries	1.8km North	<p>Habitats</p> <p>A999 Wetland and Waterbirds</p>	NPWS (2012) Conservation Objectives: River Shannon

SPA (Site Code 004077)		<p>Species A017 Cormorant (<i>Phalacrocorax carbo</i>) A038 Whooper Swan (<i>Cygnus cygnus</i>) A046 Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) A048 Shelduck (<i>Tadorna tadorna</i>) A052 Teal (<i>Anas crecca</i>) A054 Pintail (<i>Anas acuta</i>) A062 Scaup (<i>Aythya marila</i>) A137 Ringed Plover (<i>Charadrius hiaticula</i>) A140 Golden Plover (<i>Pluvialis apricaria</i>) A141 Grey Plover (<i>Pluvialis squatarola</i>) A142 Lapwing (<i>Vanellus vanellus</i>) A143 Knot (<i>Calidris canutus</i>) A149 Dunlin (<i>Calidris alpina</i>) A156 Black-tailed Godwit (<i>Limosa limosa</i>) A157 Bar-tailed Godwit (<i>Limosa lapponica</i>) A160 Curlew (<i>Numenius arquata</i>) A162 Redshank (<i>Tringa totanus</i>) A164 Greenshank (<i>Tringa nebularia</i>) A179 Black-headed Gull (<i>Chroicocephalus ridibundus</i>) A855 Wigeon (<i>Mareca penelope</i>) A857 Shoveler (<i>Spatula clypeata</i>)</p>	and River Fergus Estuaries SPA 004077 Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
Stacks to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code 004164)	2.7km Southeast	<p>Species A082 Hen Harrier (<i>Circus cyaneus</i>)</p>	NPWS (2022) Conservation Objectives: Stacks to Mullaghareirk Mountains West Limerick Hills and Mount Eagle SPA 004164. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.