



Submission

Submitter:	Mrs Lisa Maguire
Organisation Name:	Health Service Executive
Submission Title:	Environmental Health Submission
Submission Reference No.:	S011287
Submission Received:	25 August 2023

Application

Applicant:	Indaver Ireland Limited
Reg. No.:	W0167-04

See below for Submission details.

Attachments are displayed on the following page(s).



Environmental Licencing Programme
Office of Environmental Sustainability
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Co Wexford

25 August 2023

Reference Number: W0167-04

Re: Review of Industrial Emissions Licence at Indaver Ireland Waste to Energy Facility at Carranstown, Duleek, Co Meath

EHIS Reference No. 3314

Dear Sir/Madam,

The HSE Environmental Health Consultation report regarding the above application is attached below. The following HSE departments were made aware of the consultation request for the proposed development on 24 July 2023.

- HSE Estates
- HSE Emergency Planning
- Director of National Health Protection
- HSE Community Health Organisation

All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate. No additional investigations or measurements were undertaken. This report only refers to those sections of the documents which are relevant to the HSE.

If you have any queries regarding the report, please contact me.

Yours Sincerely,

Principal Environmental Health Officer



25 August 2023

EHIS Reference No. 3314

HSE EIS SUBMISSION REPORT
Environmental Health Service Consultation Report
(as a Statutory Consultee (Planning and Development Acts 2000,
& Regs made thereunder).

Report to: Environmental Protection Agency
Type of consultation: Industrial Emissions Licence
Reference Number: W0167-04

Applicant: Indaver Ireland Limited
Proposal: Industrial Emission Licence Review Application

Introduction

This report only comments on Environmental Health impacts of the Industrial Emission Licence Review Application and reports submitted by the applicant on the EPA website. The Environmental Health Service (EHS) has made observations and submissions on the following specific environmental health areas.

1. Description of Proposed Development

The applicant has received planning permission to carry out the following development on site and has applied to the EPA for a review of their existing Industrial Emissions Licence to incorporate this development:

- Increase in the amount of hazardous waste accepted at the facility for treatment in the waste to energy (WtE) plant from the current permitted 10,000 tonnes per annum (tpa) up to a maximum of 25,000 tpa;
- Increase in the annual total waste accepted at the site for treatment in the WtE facility from the currently permitted 235,000 to 250,000 tonnes per annum (tpa) to include up to 15,000 tpa of additional hazardous waste;
- Development of an aqueous waste tank farm and unloading area for the storage and processing of aqueous liquid wastes currently accepted at the facility;
- Development of a 10 MWe Hydrogen Generation Unit (HGU) for connection to the natural gas distribution network and for mobile hydrogen transport applications and other potential uses;
- Development of a bottom ash storage building for the storage of up to 5,000 tonnes of bottom ash which is currently produced on site;
- Additional waste acceptance capacity and infrastructure to accept up to 30,000 tpa (bringing the site total to 280,000 tpa) of third-party boiler ash and flue gas cleaning residues and other similar residues for treatment in the existing ash pre-treatment facility on site;
- Development of a warehouse, workshop and emergency response team (ERT)/office building to support existing maintenance activities on the site; 8.
- Development of a new concrete yard and parking area for up to 10 trucks, tankers or containers on the site;
- Demolition and re-building of an existing single storey modular office building on site with a slightly increased footprint and other miscellaneous site upgrades.

The existing Indaver Waste to Energy facility is located along the R152 road in Carranstown, Co. Meath, a short distance from both the towns of Duleek and Drogheda. The land surrounding



the site is a mix of agricultural, industrial and residential. The Platin Cement works and quarry are located to the North of the site.

2. Assessment of Non-Technical Summary

A non-technical summary was provided with the application documents, it provided a description of the licence review process and outlined the environmental impacts in a non-technical manner.

An issued regarding compliance with noise limits set in the existing licence was identified and is outlined in the section on Noise below.

3. Assessment Public Consultation

The applicant advised that they have consulted with the public and interested parties regarding the proposed development through the Indaver Community Liaison Committee.

4. Assessment of Noise

The non technical summary which accompanies the application outlines the following requirement for compliance with noise emission limits:

4.3 Noise

In accordance with IE Licence W0167-03, the facility is subject to noise limits as outlined in **Table 1**. Noise surveys are undertaken annually at four noise sensitive locations which are located at the site boundary (AN1-1 to AN1-4). Surveys are carried out in accordance with Condition 6.2 of the IE Licence using methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.

Table 1: Operational Noise Limits for the Indaver Ireland Limited Facility

Daytime dB L _{Ar, T} (30 minutes)	Daytime dB L _{Ar, T} (30 minutes)	Daytime dB L _{Aeq, T} (15-30 minutes)
55 Note 1	50 Note 1	45 Note 1

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.

A further section of the non-technical summary states the following:

11.4 Noise Emissions

Noise modelling was carried out at four noise monitoring positions as part of the application for the proposed development, located at the boundary of the site (AN1-1 to AN1-4).

The result of the assessment confirms that cumulative noise levels associated with existing and proposed operational noise sources are within the noise emission limits for the facility during the day, evening and night-time periods.

In accordance with the existing IE Licence (W0167-03), a noise monitoring survey will be carried out annually to demonstrate operations of the site does not exceed the noise levels.

The non-technical summary outlines that baseline noise levels were obtained from noise monitoring surveys carried out in 2018 and 2019 at the site boundaries and that results from predictive noise modelling when the proposed development is in operation indicated that the site will "continue to operate within the noise emission limits" as set out in the existing licence. The applicant concludes by stating the "overall effect is imperceptible to not significant when added to the prevailing noise environment".



The results of annual noise monitoring at the site boundary for 2018 and 2019 are provided in the main body of the EIAR as follows:

Table 10.3: Annual Noise Monitoring Results – 2019

Monitoring Point	2018 Noise Monitoring Results			
	Period	L _{Aeq,30mins}	L _{A10,30mins}	L _{A90,30mins}
AN1-1	Daytime	59	62 – 63	48 – 49
	Evening	57	62	43
	Night-time	55	60 – 61	39 – 41
AN1-2	Daytime	63	66	53 – 54
	Evening	55	58	48
	Night-time	51 – 52	54	44 – 45
AN1-3	Daytime	57 – 58	59 – 60	52 – 53
	Evening	54	57	45
	Night-time	52 – 53	56 – 57	43 – 44
AN1-4	Daytime	50 – 52	51 - 53	47 – 48
	Evening	49	50	47
	Night-time	48	50	45 – 47

Table 10.4: Annual Noise Monitoring Results - 2018

Monitoring Point	2018 Noise Monitoring Results			
	Period	L _{Aeq,30mins}	L _{A10,30mins}	L _{A90,30mins}
AN1-1	Daytime	55 - 56	58 - 59	46
	Evening	51	56	41
	Night-time	47 - 50	49 - 50	39 -40
AN1-2	Daytime	67 - 68	71 - 72	53 – 55
	Evening	61	65	45
	Night-time	56 - 58	38 - 54	33 – 34
AN1-3	Daytime	61 - 62	65	53 – 54
	Evening	55	59	37
	Night-time	51 - 52	48 - 54	32
AN1-4	Daytime	59 - 52	51 - 52	46 – 47
	Evening	45	46	43
	Night-time	44 - 46	46 - 51	43

The noise monitoring results for both years indicate that the L_{AEQ} levels do not comply with limits set out in the existing licence. It is also noted that the noise levels at the location furthest from the road AN1-4 did not comply with daytime noise limits in 2018 and night time noise limits in 2019. Noise monitoring was carried out on 2 days in August in each year. The most recent Annual Environmental Report for 2022 which is available on the EPA website indicates that



noise levels are “compliant with licence limits”, there is no further explanation of monitoring carried out or how the applicant complied with existing licence conditions regarding noise.

It is understood that the noise environment is influenced by traffic noise and the applicant states “the LA₉₀ parameter which is recorded over 90% of the monitoring duration is less influenced by intermittent noise such as passing road traffic and hence, presents a better description of continual operations associated with the Indaver facility”. Section 10.15 of the EIAR advises that predicted noise emissions from the operation of the proposed development are within the daytime limit values based on the use of LA₉₀ noise levels.

There are 9 residential properties within 200m of the site boundary and one receptor is approximately 20m to the south east of the site boundary. The World Health Organisation has established that noise is an important public health issue and it can have negative impacts on human health and well-being and is a growing concern¹. The applicant must ensure that local residents are not impacted by noise from the existing site operations, proposed development or exposed to a creeping background noise level due to further development on this site.

The statements regarding compliance with EPA licence noise limits in the non-technical summary may not provide the general public with an overall picture of the existing noise environment. Furthermore, the EPA must be satisfied that the manner in which the applicant has assessed compliance with noise emission limits does not expose local residents to excessive noise causing nuisance and does not contribute to a gradual increase in the background noise levels in the vicinity of the site. It is my view, that further monitoring and assessment of the noise environment should be carried out to ensure that local residents are protected from noise nuisance and creeping background noise levels.

5. Assessment of Odour Emissions

An assessment of existing odour emissions or any proposed emissions could not be found in the EIAR. The applicant is required to implement measures to control odours in the existing licence.

The applicant should carry out an assessment of any possible odour emissions from the proposed development and ensure that it will not give rise to an odour nuisance in the vicinity of the site.

6. Assessment of Air Emissions

There is one licenced air emission point (A1-1) identified in the application documents. There are no new main emission points proposed for this development. It is understood that the applicant has applied to increase the maximum flue gas flow rate to accommodate fluctuations in thermal load of the plant. An updated air dispersion model was provided and all predicted results are in compliance with relevant Air Quality Standards. The applicant states the proposed development will result in an “imperceptible impact” on Air Quality.

An assessment of other developments in the vicinity of the site including Irish Cement and SSE Generation Ireland was carried out in the EIAR. This assessment concluded that there would be no significant emissions from these developments which would give rise to significant cumulative effects on the local environment.

¹ Environmental Noise Guidelines for the European Region, World Health Organisation, 2018



The EHS is satisfied that the control measures and monitoring procedures outlined in the existing licence and the application documents should ensure compliance with relevant Air Quality Standards and in turn, protect human health.

7. Assessment of Land and Soils

The existing land and soil conditions are described in the EIAR. Wastewater from site sanitary facilities is discharged through waste water treatment systems and percolation areas. There are 3 boreholes located on site and regular monitoring is undertaken. The applicant states that results of monitoring indicate that there is no evidence of any residual or historical contamination across the site.

The EHS is satisfied that the mitigation and monitoring measures outlined in the EIAR are adequate to protect land and soils from contamination in the vicinity of the site and in turn protect public health.

8. Assessment of Water

The applicant has outlined the existing surface water environment on site. There is one stormwater discharge point which drains to the Cruicerath stream and onto the River Nanny. The applicant has described the existing control measures prior to discharge of stormwater, rainwater from the proposed development will drain through the existing stormwater system. The applicant states that any contaminated run-off will be contained on site.

The EHS is satisfied that the mitigation and monitoring measures outlined in the EIAR should be adequate to protect the existing surface water system from contamination and in turn will protect public health.

9. Climate Change

The Irish Government declared a climate and biodiversity emergency in 2019. The Non-Technical summary outlines how the Indaver facility will contribute to the objectives set out in the following policies, Acts and Regulations relating to Climate Change Objectives:

- Climate Action Plan 2023
- The Circular Economy and Miscellaneous Provisions Act 2022
- Climate Action and Low Carbon Development (Amendment) Act 2021
- National Adaptation Framework and Sectoral Adaptation Plans

It is incumbent on every energy consumer to reduce energy consumption and green house gas production to protect human health. The applicant should consider climate impacts at every stage of construction and operation of the proposed development.



Conclusions

1. The statements regarding compliance with EPA licence noise limits in the non-technical summary may not provide the general public with an overall picture of the existing noise environment. Furthermore, the EPA must be satisfied that the manner in which the applicant has assessed compliance with noise emission limits does not expose local residents to excessive noise causing nuisance and does not contribute to a gradual increase in the background noise levels in the vicinity of the site.
It is my view, that further monitoring and assessment of the noise environment should be carried out to ensure that local residents are protected from noise nuisance and creeping background noise levels.
2. An assessment of existing odour emissions or any proposed emissions could not be found in the EIAR. The applicant is required to implement measures to control odours in the existing licence.
The applicant should carry out an assessment of any possible odour emissions from the proposed development and ensure that it will not give rise to an odour nuisance in the vicinity of the site.

A handwritten signature in blue ink, reading 'Carmel Lynch', is placed over a light green rectangular background.

Carmel Lynch
Environmental Health Officer
Environment and Climate Change Network Support Unit