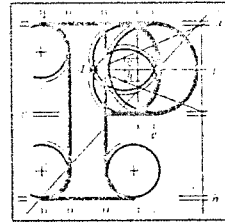


Our Case Number: ABP-318802-24

Planning Authority Reference Number:



**An
Coimisiún
Pleanála**

Dr George Fitzgerald
Centric Primary Care Centre
Ticknock
Cobh
Co. Cork
P24 V621

Date: 19 November 2025

Re: Proposed development of a resource recovery centre (including waste-to-energy facility)
in Ringaskiddy, County Cork.

Dear Sir / Madam,

An Coimisiún Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Commission will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Coimisiún Pleanála when they have been processed by the Commission.

More detailed information in relation to strategic infrastructure development can be viewed on the Commission's website: www.pleanala.ie.

If you have any queries in the meantime please contact the undersigned officer of the Commission. Please quote the above mentioned An Coimisiún Pleanála reference number in any correspondence or telephone contact with the Commission.

Yours faithfully,

Kevin McGettigan
Executive Officer
Direct Line: 01-8737263

PA04

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D01 V902	D01 V902

Submission to An Coimisiún Pleanála — Case PA04.318802

Submission re the Community Health Impacts of the Proposed Indaver Hazardous Waste and Waste-to-Energy Incinerator, Ringaskiddy, Co. Cork

Submitted by:

Dr George FitzGerald, GP

Family Practitioner at

Centric Primary Care Centre

Ticknock, Cobh, Co. Cork. P24 V621

Date: 13 November 2025

Summary

This submission refers to up-to-date understanding of medical and scientific evidence on the likely community health impacts of the proposed Indaver waste and Hazardous Waste Incinerator at Ringaskiddy, Co. Cork. The focus is on particulate matter (PM), ultrafine particles (UFPs), and developmental/embryological toxicity. It also highlights the methodological inaccuracy of using Cork Airport meteorological data to model emissions for Ringaskiddy—which is a coastal site in a contained harbour with distinct microclimate, relative to the high elevation and different air dispersion conditions of the Airport site. Indaver’s application relies heavily on inappropriate modelling due to the data being received from a distant, westerly and elevated site. This submission also includes references to peer-reviewed literature (2020–2025) and refers to a previous submission by the relevant expert Embryological Toxicologist Professor C. Vyvyan Howard.

Key Concerns.

1. Fine and ultrafine particulates: WHO's 2021 Global Air Quality Guidelines show adverse health effects at PM_{2.5} and PM₁₀ levels well below current EU limit values.
2. Ultrafine particles (UFPs) (<100 nm) penetrate deeply into lung tissue and cross into the bloodstream, contributing to cardiovascular, neurological, and developmental harm.
3. Developmental and embryotoxic effects: Dioxins, PCBs, and metals emitted from incineration processes can interfere with fetal growth and neurodevelopment, as supported by evidence previously submitted from Professor C. Vyvyan Howard and others.
4. Invalid meteorological data submitted by Indaver : Use of Cork Airport data (~15 km inland and west of the site) fails to capture local sea-breeze inversions and weather conditions in Ringaskiddy. This can underestimate real local exposure.
5. Cumulative exposures and downwind impacts: Health impacts extend beyond the immediate area, with plausible exposure pathways up to 50 km downwind.

Summary of Medical and Scientific Evidence.

- WHO (2021) lowered PM guideline values to reflect strong evidence of harm at low concentrations.
- Marval et al. (2022) and Ohlwein et al. (2021) confirm ultrafine particles have independent inflammatory and cardiovascular effects.
- Howard et al. (2003) and Kossack et al. (2022) identify embryonic vulnerability to low-dose dioxin and particle exposure.
- Domingo (2020) and Di Maria et al. (2024) review waste-to-energy plant emissions and note residual risks even under modern regulatory limits.
- Balmes (2024) discusses ultrafine particle exposure and population-level health effects, including chronic diseases.
- Epidemiological evidence continues to associate proximity to incinerators with adverse respiratory and perinatal outcomes (Domingo 2020; DEFRA Review 2025).

Concerns re Meteorological and other Data Accuracy

- The Environmental Impact Assessment (EIAR) uses Cork Airport meteorological data for dispersion modelling. This station lies approximately 14–15 km from Ringaskiddy and experiences distinct inland wind regimes.
- Ringaskiddy's coastal and estuarine airflow (sea breezes, inversions) significantly affects pollutant dispersion. Using Cork Airport data without correction likely underestimates local ground-level pollution.
- An Coimisiún Pleanála should require site-specific meteorological measurements for at least 12–24 months before accepting any dispersion or health conclusions.

Specific Health and Data Gaps

1. Ultrafine particles (UFPs): Absent from EIAR analysis, despite known toxicity and capacity for long-range transport.
2. Food chain and biomonitoring: No plan for measuring dioxins, PCBs, or metals in local soil, shellfish, or dairy.
3. Cumulative exposure: Insufficient evaluation of existing industrial and port emissions in Cork Harbour.
4. Long-term health outcomes: No plan for epidemiological tracking (respiratory admissions, perinatal outcomes, cancers).

Recommendations

- Commission an independent Health Impact Assessment (HIA) reviewed by experts in environmental medicine, developmental toxicology, and particle toxicology.
- Require on-site meteorological monitoring (≥ 12 months) before final assessment.
- Implement UFP monitoring (particle number concentration) at fence-line and community sites, with open public reporting.
- Conduct biomonitoring (maternal/cord blood, food chain sampling) for persistent pollutants.
- Require real-time public reporting of PM_{2.5}, PM₁₀, NO_x, and UFP data.
- Establish an independent community oversight group for emissions and health monitoring.

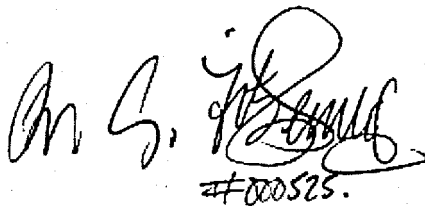
- Implement long-term epidemiological surveillance of nearby communities for early detection of adverse trends.

If any of the above problems are not correctable,(in my opinion, this was achievable in the last 21 years or practical, the precautionary principal should apply and this re- application should be declined by An Comisiún Planeála.

Conclusion

Indaver has had 24 years to address the deficiencies in their previous submissions. They have not gathered relevant up to date information or data. Nor have they corrected previous shortcomings in their submissions. (for which they had been declined planning permission on three different applications). These issues are and were relevant to community and public health, involving exposure to pollutants in of the community's environment. Such pollutants include UFP's, PCP's and other persisting bio-active and injurious chemicals. They have been deficient in the air modelling (and therefore the related risk) down wind from the site that they have owned over the period 2001 – 2025. They have had more than adequate time to gather more and accurate, relevant data . They have not done so demonstrating a level of general incompetence which does not inspire confidence in the community affected.

Current medical knowledge shows that fine and ultrafine particulate emissions, even at low levels, are linked to cardiovascular, respiratory, and developmental harm. Given the uncertainties in the applicant's air-quality data and the omission of UFP monitoring, granting permission without robust independent assessment would contravene the precautionary principle central to modern public health. The undersigned strongly urges An Coimisiún Pleanála to require comprehensive independent studies and monitoring before any decision on PA04.318802 is made. Given the lack of evidence of competence over a 21 year period - I would in preference urge An Commisiún Pleanála to decline permission -again.



#000525.

Dr George FitzGerald, MB BCH BAO, MICGP

MCNo 000525

Community-based General Practitioner

Centric Primary Care Centre

Ticknock, Cobh, Co. Cork P24 V621

References (Annotated Summary, 2000–2025)

- World Health Organization (2021): Global Air Quality Guidelines. Updated evidence linking low PM levels to morbidity and mortality.
- Marval J. et al. (2022): Atmospheric Environment 268. Review of UFP exposure and health effects.
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- Howard CV, Hill A, Strähle U, Cossins A. (2003): Toxicological Sciences. Demonstrates neurodevelopmental effects of dioxin exposure.
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- Balmes JR. (2024): AJRCCM. Editorial on ultrafine particles and chronic disease risk.
- DEFRA / UK Gov. (2025): Municipal Waste Incinerator Health Review. Updated systematic review of epidemiological evidence.
- Howard CV (2000–2024): Expert reports and publications on nanoparticle toxicology and fetal vulnerability.