

## **Response to Submissions**

**An Bord Pleanála: Reference: No: PL04.PA0045**

**Indaver Ireland - Proposed Waste to Energy Facility, Ringaskiddy, Co. Cork**

**2 October 2017**

### **Preface**

The information provided herein is submitted in response to the correspondence dated the 5th September 2017 received from An Bord Pleanála [the Board] regarding submissions and observations received by the Board in response to the circulation of the further information submitted by Indaver Ireland [Indaver], dated the 15<sup>th</sup> May 2017 and relating to the above proposed development, currently under the consideration of An Bord Pleanála as a Strategic Infrastructure Development [SID].

This correspondence issued by the Board invited Indaver to respond to the submissions made within a period of 4 weeks from the date of this correspondence. Indaver welcomes the opportunity to comment on the matters that have been raised in these submissions and observations and this response document provides the basis for commentary on the submissions /observations lodged in relation to the above mentioned proposed development.

### **Summary**

#### **Format of Response to Submissions**

Indaver has conducted a thorough review of all such submissions received by the Board. These submissions range from statutory consultees (namely, Transport Infrastructure Ireland, the Department of Defence and the Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs) to submissions from individuals and local groups. Whilst it is acknowledged that the submissions reflect a range of issues from localized matters regarding the proposed development to more holistic matters pertaining to national policies and issues, there is considerable commonality regarding the issues raised.

The majority of issues raised within the submissions have been fully addressed within the previously submitted application documentation which includes an Environmental Impact Statement [EIS]. Therefore, this response has focused on clarifying and discussing those matters which have been raised in the submissions received which require additional discussion.

Following on from the analysis of all submissions received, a range of issues were identified under which the various matters raised, and their respective responses could be framed. The submissions which make reference to the same issue are dealt with together under each applicable issue heading in the interests of clarity and in order to avoid repetition.

It should also be noted that there are a number of submissions which are more technical and lengthy in nature and responses to these items have been prepared by expert consultants. These responses are referred to under the applicable issue heading with the full particulars provided by the relevant experts attached at the end of the document as separate attachments to this response document.

## **Issues raised in Submissions**

The issues highlighted in submissions received which are addressed in the remainder of this response document, are as follows:

1. Traffic & Road Development
2. Archaeology
3. Helicopter Navigation Safety
4. Land Use Planning Policy
5. Tourism & Recreation
6. Waste Management & Capacity
7. Health & Safety: Fire Safety
8. Health & Safety: Air & Climate
9. Health & Safety: Environmental Impact Statement [EIS]
10. Miscellaneous Issues

### **1 Traffic & Road Development**

#### **1.1 Transport Infrastructure Ireland**

Transport Infrastructure Ireland [The Authority] in its submission dated 15<sup>th</sup> June 2017, reiterates that the position of the Authority remains the same as outlined in its written submission made to An Bord Pleanála dated the 8<sup>th</sup> May 2016.

#### **1.2** Therein, the Authority recommends that:

(a) actions with regard to road improvements, mobility management and transport mitigation measures included in the Environmental Impact Statement (EIS) need to be implemented in full to ameliorate potential impacts on the national road network and associated junctions for all users.

Response:

Indaver hereby commits to adhere to such particulars described in the EIS as requested by the Authority above.

#### **1.3** (b) the Authority advises that regarding the proposed M28 Ringaskiddy/Cork Improvement Scheme, no additional services or other facilities should be placed within lands required for the future M28 scheme.

Response:

This point specified in the Authority's submission is considered reasonable and acceptable to the Indaver.

#### **1.4** (c) the Authority requires that full technical details relating to the raising of the road for drainage reasons will be required to address mitigation measures to address issues related to M28 design considerations prior to commencement of development.

Response:

Indaver hereby confirms that the required full technical details shall be provided.

- 1.5 (d) the Authority requests the attachment of a condition for a development contribution, toward the cost of the proposed upgrading works on the N28, which will facilitate specifically the strategic development application if the Board is predisposed to the granting of planning permission for this application.

Response:

In the event of favourable consideration being forthcoming from An Bord Pleanála, Indaver has no objection to appropriate conditions in relation to the above point being applied, should an Bord Pleanála consider the same to be appropriate.

**2. Archaeology**

**2.1 Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs (Development Applications Unit)**

The National Monuments Services of the Department of the Department of Arts, Heritage, Regional & Rural Affairs [the Department] submitted in its submission to the Board dated the 19<sup>th</sup> July 2017, the following heritage-related archaeological recommendations:

- 2.2 The Department makes the following recommendation regarding terrestrial archaeology: 'that should permission be granted for this application, a detailed condition requiring the full implementation of the archaeological mitigation strategies as contained in the EIS be attached to any permission that may issue. Please note that all areas of ground disturbance, either permanent or temporary, associated with the proposed development should be included in any archaeological mitigation strategy that may be implemented'.

Response:

Indaver hereby agrees that that all mitigation measures made in the EIS relating to archaeology mitigation strategies, including those relating to ground disturbance shall be implemented in full and adhered to in the event of the granting of favourable consideration from An Bord Pleanála.

- 2.3 Regarding underwater archaeology, the Department requests that photomontages supplied as part of the application process be forwarded to them, should any further other photomontages have been submitted since this point.

Response:

Indaver can confirm that whilst no further photomontages have been submitted since the date referred to above, a comprehensive and detailed examination of the potential impacts of the proposed development on the archaeological, architectural and cultural heritage of the development site and surrounding area has been conducted as detailed in Chapter 14 of the EIS, *Archaeological, Architectural and Cultural Heritage*, and Figures 14.1 – 14.6 and Plates 1 – 23 presented in Figures 14.7 to 14.12 respectively.

**3 Helicopter Navigation Safety**

**3.1 Department of Defence**

Under this heading the Department of Defence [The Department] in its submission made to the Board by letter on the 12<sup>th</sup> July 2017 has sought clarification in relation to the proposed development and any potential impact on air corps operations. The submission requests that clarity be provided on one substantive matter, as detailed in full below:

*'in order to ensure the safety of its operations, the Air Corps requests that Indaver explicitly state the volume within which all risk to helicopters arising from the exhaust plume is contained (ie the distance beyond which a helicopter, in all conditions, may fly without risk from the plume). Should Indaver confirm that this risk will be contained within 150m of the stack then it will not impact on Air Corps operations'.*

Response:

Indaver hereby confirms that the site-specific risk heights have been found to be limited to a distance of 3.5 metres from the stack top. This confirmation, as included in the expert report compiled by Dr. Edward Porter, entitled: *Plume Modelling Assessment* was submitted to An Bord Pleanála in response to the request for further information on the 15<sup>th</sup> May 2017.

**3.2 Other Submissions**

A number of other submissions and observations have raised concerns pertaining to helicopter navigation safety.

Response:

In light of the above confirmation, Indaver now considers that all other submissions on this matter are adequately addressed and do not warrant further consideration.

**3.3 Mike Griew Submission**

Notwithstanding the foregoing, a submission lodged by Mike Griew, dated the 19<sup>th</sup> July 2017, was concerned in its entirety with perceived impacts on helicopter operations relating to the proposed development and thus, necessarily warrants a specific response.

Response:

Regarding these matters, this response has been prepared by expert aviation consultant, Graham Liddy who has previously undertaken an Aviation Safety Report, in response to the Board's request for further information and submitted on the 15<sup>th</sup> May 2017. This report is attached to this response document as Attachment 1 and the assessment conducted therein concludes that the proposed development will not impact Air Corps operations given the confirmation referred to previously.

**3.4** This submission also raised an issue regarding the HM Naval Base in Devonport UK example (which includes an Energy from Waste Combined Heat and Power facility) referred to by Indaver in its response to the request for additional information and submitted to the Board in May 2017. This case study was included in the same as a useful example of international best practice..

Response:

The response of aviation expert, Graham Liddy addresses this contention and reiterates that the presence of a waste to energy facility does not prohibit the conducting of flight operations from ships in the vicinity of the facility.

**3.5** The above expert report of Graham Liddy also provides clarification on this matter which is detailed at pages 8 and 9 respectively of the report which is Attachment 1 to this document.

**3.6 Other Submissions**

A number of other submissions received also question the relevance of the Devonport Naval Base example.

### Response

- 3.7** It is necessary to reiterate that this example was included as it provides a case in point whereby an energy from waste to energy does not prohibit the operation of helicopter flights from ships in the adjacent area. The landing site referred to in some submissions was not referred to in the information provided to the Board in May 2017 and as such may be regarded as falling outside the scope of matters requiring a response.
- 3.8** In conclusion, it must be reiterated that concerns raised concerning helicopter navigation safety, have been affirmatively addressed by the verification sought by the Department and provided in paragraph 3.1 above.

## **4 Land Use Planning Policy**

### **4.1 Submissions**

A number of submissions have made reference to perceived inconsistencies of the proposed development with the future planning and development of the area of the proposed development including the educational and planned tourism development of Cork Harbour.

#### Response:

As established in the submitted application documentation, and principally Chapter 2 of the EIS, Policy and Planning Framework and Need Issue 1 and Chapter 11, Landscape & Visual Issue 1, the proposed development is consistent with the continued development of industrial, education, energy, pharmaceutical projects and significant investment in tourism and destination development in the harbour area.

- 4.2** Further, the proposed development, is compatible with national and regional planning policy, including the Cork County Development Plan 2014-2020. The Southern Region Waste Management Plan 2015-2021 supports the development of up to 300,000 tonnes of additional thermal recovery capacity for the treatment of non-hazardous wastes nationally, while Section 6.4.11 of the Cork County Development Plan states the provision of strategic large scale waste treatment facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas. Ringaskiddy is an 'Industrial Area' that is designated as a Strategic Employment Area in Cork County Development Plan 2014, that is suitable for large scale development.
- 4.3** In this regard, it should be noted that since the above referred to EIS was submitted an amendment relating to local planning policy regarding the applicable Ballincollig Carrigaline Municipal Local Area Plan has been implemented. This amendment and associated contextual information will now be detailed for informational purposes.
- 4.4** Previously, the County Cork Development Plan 2014 was found to not be in compliance with the requirements of Sections 9, 10 and 12 of the Planning and Development Act 2000 and was amended by Ministerial Direction of 4th March, 2015. Pursuant to the Minister's Direction, industrial land use zoning Objective ZU 3-7 of the Cork County Development Plan 2014 was amended to include the following:

*'the provision of strategic large scale waste treatment facilities including waste to energy recovery facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas in the local area plans subject to the requirements of National Policy and future Regional Waste Management Plans'.*

- 4.5** Subsequent to this development, Cork County Council resolved on the 24<sup>th</sup> July 2017 to amend the Draft Ballincollig Carrigaline Municipal District Local Area Plan. This amendment

(BC.03.07.23) seeks to rezone the principal part of the Indaver site to which SID Application PA0045 relates from I-15 to RY-I-20, any therefore having the specific objective:

*Suitable for the extension of the opposite Third Level Educational campus and enterprise related development including marine related education, enterprise, research and development. Consideration will also be given to established operators in Ringaskiddy for the provision of ancillary office accommodation and for Research and Development facilities.*

*This site is considered inappropriate for any short or full time residential accommodation.*

*Any existing access to the nearby Martello tower which crosses this site shall be protected and provision for open space buffer to any existing access shall be provided.*

*This area may be used as a feeding ground by bird species for which Cork Harbour SPA is designated.*

- 4.6** It should be noted that the Chief Executive of Cork County Council stated in the report of 6th March, 2017 that:

*'the identification of RY-I-19 provides for the continued expansion of the IMERC facility and help build on this successful cluster and also provides for complimentary business activity'* (Chief Executive's Report March, 2017)

- 4.7** However, notwithstanding the recommendation of the Chief Executive, at their meeting of 27th March, 2017, the Members resolved to make the Proposed Amendment to the draft LAP as set out in Amendment Ref: BC.03.07.23 above. The Members' resolution did not give any reason for the making of the Proposed Amendment.

- 4.8** It should be further noted that no submission was made by or on behalf of any entity associated with the IMERC campus that the applicable land site should be rezoned or that there was any requirement that any additional lands should be rezoned to allow for the future expansion of the campus.

- 4.9** Thereafter, the aforementioned amendment took effect on the 21<sup>st</sup> August 2017.

- 4.10** It is submitted that this amendment is inconsistent with the National Planning Policy Statement 2015, as there is no evidence base to justify the rezoning and further that the Amendment is contrary to Section 10 (2)(b) (iii) of the Planning and Development Act, 2000, as amended, as it is contrary to policy objective ZU 3-7 of the Cork County Development Plan 2014 in respect of appropriate uses in industrial areas, as amended by Ministerial Direction of 4th March, 2015, which supports in principle the provision of strategic large scale waste treatment facilities including waste to energy recovery facilities will be considered in 'Industrial Areas' designated as Strategic Employment Areas such as Ringaskiddy.

- 4.11** Indaver notes that Section 19(2) of the Planning and Development Act 2000 as amended provides that a local area plan shall be consistent with the objectives of the development plan, while Section 18(4)(b) of the Planning and Development Act 2000 as amended provides that where any provision of a local area plan conflicts with the provisions of the development plan, the provision of the local area plan ceases to have any effect.

- 4.12** Indaver further submits that the proposed development is and remains a plan-led development, consistent with national, regional and local waste and planning policy which remains in accordance with the proper planning and sustainable development of the area

and complies with the relevant planning policy context documents as comprehensively detailed in the EIS .

## **5 Tourism & Recreation**

- 5.1** Some submissions assert that potential adverse impacts to tourism and amenity features in the area will arise as a result of the proposed development and is not compatible with future planned developments for tourism in the Cork Harbour area.

### Response

The impacts of the proposed development on Tourism and Recreation is examined comprehensively in Chapter 6, section 6.5.7.3 (Population & Human Health Issue 1) of the submitted EIS. In accordance with Fáilte Ireland Guidelines on the Treatment of Tourism in an Environmental Impact Statement (Fáilte Ireland, 2011), sites of value to local tourism in proximity to the proposed development site were appraised fully for effects on tourism.

- 5.2** This appraisal determined that the cumulative impacts of the proposed development on the landscape character as it relates to applicable tourism sites will be negative in the short term and is deemed to be positive in the medium to long term once operational as the area transitions from a slightly unkempt, semi-industrial area, to a more developed cluster of industry, energy and education campus style landscape.
- 5.3** Overall, it is not considered that the proposed development would have an adverse effect on tourism and may be regarded as being broadly consistent with the other planned and permitted developments in the vicinity including the M28 Cork to Ringaskiddy Motorway Scheme, the redevelopment of the Ringaskiddy Port, educational activity at the IMERC campus, the tourism development of Haulbowline Island and the continued development of industrial, renewable energy and pharmaceutical projects in the lower harbour area.
- 5.4** Accordingly, it is submitted that the above matters may be regarded as having been comprehensively addressed.

## **6 Waste Management & Capacity**

- 6.1** A variety of submissions, including that submitted by Cork Harbour Alliance for a Safe Environment (CHASE), the Collaborative Community Submission Group and the East Cork Harbour for a Safe Environment, assert that the proposed development is not required in capacity terms and is at odds with Circular Economy principles.

### Response:

The requirement of the Southern Region Waste Management Plan [SRWMP] as comprehensively detailed in Chapter 2 of the EIS, *Policy & Planning Framework and Need Issue 1*, explicitly includes 300,000 tonnes capacity for residual municipal waste treatment, in addition to 50,000 tonnes capacity for hazardous waste and an unspecified capacity for industrial waste.

- 6.2** Furthermore, in 2016 the consequences of not having sufficient residual waste treatment capacity resulted in the enactment of emergency measures to mitigate a waste crisis pursuant to Section 56 of the Waste Management Act 1996. This information was submitted to the Board as part of Indaver's response to the Board's request for further information on the 15<sup>th</sup> May 2017.

- 6.3** These particulars in combination with the requirements of the Southern Region Waste Plan, clearly underline the exigent need for additional residual treatment capacity. It is therefore considered that these submissions are adequately addressed.
- 6.4** Comment has also been presented in some submissions relating to the European Commission's Proposed Circular Economy Package. The recent Waste-to-Energy Communication issued by the European Commission is also referred to in some submissions wherein, and it is contended that the proposed development is at odds with circular economy principles in light of this Communication.

Response:

These submissions do not make reference to the unique circumstances and challenges that exist in differing Member States and to the fact that national policy is also relevant in the context of sustainable waste management policies as set out in existing European legislation which Ireland is required to comply with.

- 6.5** Such matters cannot be considered in isolation and regard must be had to national and local waste policy. Therefore, in view of the need clearly demonstrated in the Southern Regional Waste Management Plan as detailed in paragraph 6.1 above and the emergency mitigation measures that had to be invoked in 2016, it is contended that these matters may be regarded as properly and fully addressed.

**7 Health & Safety: Fire Safety**

- 7.1** Various submissions/observations have made reference to perceived concerns regarding fire safety and evacuation procedures from the proposed facility. Many such submissions including one lodged by the Permanent Defence Force Other Ranks Representative Association (PDFORRA), assert that the evacuation strategy in the event of a fire, is not appropriate.

Response

It is important to reiterate that the proposed facility has been designed in accordance with a number of stringent regulations which contain stipulations on health and safety procedures and those relating to fire safety in order to ensure that the likelihood of such an occurrence in the first instance is mitigated to the greatest degree possible.

- 7.2** These respective procedures are detailed in Chapter 4, *Description of the Proposed Development* of the submitted EIS, and provide that the proposed facility has been designed in accordance with the following:
- The Safety Health & Welfare at Work (Construction) Regulations 2013 which provide that fire detection and fire fighting systems must be provided for;
  - The design must also comply with Irish Building Regulations Technical Guidance Document Part B Fire Safety;
  - The facility will also be required to comply with Best Available Techniques (BAT) as defined in the Industrial Emissions Directive (Directive 2010 /75/EC). The EU Best Available Techniques Reference Document (BREF) on Waste Incineration and recommendations therein have been implemented throughout the design of the facility and will be implemented in operation;

- Appendix 4.4 of the EIS demonstrates this compliance and provides that a fire resisting wall will be provided between the bunker and the furnace hall and a fire extinguishing system comprising fire detection and control systems will be installed in the bunker;
- A Site Emergency Plan and emergency response measures as detailed in 4.17.5 of the EIS, will also be designed and implemented with the key focus on the prevention of emergency incidents. This site will also have a dedicated 'emergency response team' who shall be responsible for the continuous monitoring of the site.

**7.3** In accordance with the above mentioned requirements, the scope and content of the Environmental Impact Statement, will necessarily evolve to incorporate all relevant considerations regarding emergency procedures and related health and safety issues.

#### **7.4 Other Submissions**

It should be further noted in this regard that some submissions, make reference to incidents which have occurred at other facilities including some which have occurred in other jurisdictions.

**7.5** It is necessary to clarify that this response can only relate to information that is contained in the submitted EIS, the planning application and to matters pertaining to Indaver as the applicant in this Strategic Infrastructure Application [SID]. Accordingly, Indaver cannot, and in any event is not in a position to comment on such matters, as they have no bearing on the present application and as such cannot be responded to.

### **8 Health & Safety: Air and Climate**

**8.1** A number of submissions, and those submitted by Charlie & Mary Nash and the Oakhurst Residents raise a concern regarding eddy currents and wake from the turbine. They specifically state:

'insufficient studies have been carried out on the eddy currents and wake from the turbine to show where the toxic gases will go, chimney is in leeward side for most of the year and the lower blade is below the top of the proposed chimney stack'.

#### Response

The response to this matter has been prepared by expert consultant, Dr. Edward Porter, who previously carried out the modelling report which was submitted to the Board as part of the response to the request for further information in May 2017 (as per issue 3 above at paragraph 3.1). The response to this matter is entitled *Air Quality Response*, and is attached to this document as Attachment 2.

**8.2** The response document, Attachment 2, concludes that the effect of the wind turbine on dispersion of the plume from the Ringaskiddy RRC stack has found that the impact of the velocity deficit and associated turbulence (eddy diffusion) on ambient levels of pollutants is not significant and all pollutants will remain well below the ambient air quality standards.

#### **8.3 Cllr. Marcia Dalton Submission**

This submission raises a concern regarding the proximity of the wind turbine to the stack of the proposed development. It is contended that wind turbines affect local wind conditions and airflow and thus has implications on the well-being of the adjacent Loughbeg SPA and for the impact of pollutant dispersion on human health.

### Response

The response to this matter has also been prepared by Dr. Edward Porter as part of Attachment 2, *Air Quality Response*, referred to above.

- 8.4** Therein, the matters raised have been comprehensively addressed and modelling conducted of the effect of the wind turbine on dispersion of the plume from the stack and of the flow field in the region of the wind turbine, both of which conclusively determine that the levels in the region of the Ringaskiddy RRC will not be significantly changed on an annual basis.

### **8.5 Rodney Daunt Submission**

This submission poses a question concerning the bag filters on the output of the proposed facility and the manner in which small tears to such filters would be detected.

### Response

Regarding this matter, it is important to note that the continuous dust measurement in the stack will detect the smaller tears that are not detectable by the pressure drop. This is because the instrument measures total dust and not just dust over a certain particle size. The efficiency of the bag filter in removing dust is 99.9%. Typical dust levels of 2,000 mg/Nm<sup>3</sup> in the untreated flue gases are reduced to between 1 and 2 mg/Nm<sup>3</sup> by the bag filter.

- 8.6** The expected dust emission during normal operation is between 1 and 2 mg/Nm<sup>3</sup> (the emission limit is 10mg/Nm<sup>3</sup>). Any increase over this normal range is cause for immediate visual inspection by the operators. Any tears in the bags can be easily detected by isolating each module of the bag filter in turn and inspecting the outlet side of each module. This is done during operation as the bag filter is always designed with the n+1 principal. “n” modules for the designed flue gas flowrate + 1 module spare. If there are any tears in any of the bags in a module, dust will be visible around the outlet of the failing filter bag. The failing bag can then be removed, replaced and the module put back into operation.
- 8.7** Regarding the dioxins, as pointed out by Mr Daunt, increased emissions of dioxins is associated with increased dust levels. Hence, the control measures outlined in paragraph 8.5 above also mitigate this aspect.
- 8.8** In light of the preceding analysis, it is contended that the applicable question may be regarded as answered, and correspondingly, the matter may be said to have been properly addressed.

## **9 Health & Safety: Environmental Impact Statement [EIS] – Appendix 6.4**

- 9.1** A number of submissions including that submitted by Dr. Gordon Reid, as part of the Cork Harbour Alliance for a Safe Environment (CHASE) submission and dated the 19<sup>th</sup> July 2017, make enquiries regarding Appendix 6.4 of the Environmental Impact Statement [EIS]: Modelling of PCDD/F Intake for Ringaskiddy and Attachments D and J, regarding the dioxin /furan intake for maximum at risk individual (MARI) and the review of the same carried out by Prof. Dr. Johnston.

### Response

- 9.2** This response has been prepared by Dr. Fergal Callaghan and is attached to this document as Attachment 3.

**9.3** This report concludes that the determination arrived at in the Environmental Impact Statement that the proposed Resource Recovery Facility will have no significant impact with regard to PCDD/F impact on human receptors remains valid. The theoretical MARI (an individual who does not in fact exist) may experience a slight increase in PCDD/F intake but this is still below the relevant EU intake guidance. For actual people living in the area, the PCDD/F exposure which may occur is insignificant when compared with the PCDD/F exposure of the general population from food-stuffs available on the Irish market.

## **10 Miscellaneous Issues**

**10.1** Certain submissions/observations received on the proposed development raised matters of a miscellaneous nature and that were considered to be unconnected to those issues referred to in the preceding sections of this response document. These matters include those which do not pertain to the present Strategic Infrastructure Application at hand.

### Response

For the most part, some such submissions raise issues which do not pertain to the present Strategic Infrastructure Application and relate to matters applicable to previous applications. Given that the Board may only have regard to the current application, it is submitted that such matters cannot be commented upon or addressed as they can have no bearing on the current application and should accordingly be set aside.

## **10.2 Other Submissions**

Many submissions and observations received refer to matters which do not pertain to Indaver as the applicant in this Strategic Infrastructure Application [SID].

### Response

it would not be appropriate for Indaver to respond to any such observations as they are not in any way linked and outside the remit of matters upon which it can provide commentary.