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Subject: Dumping at SEa licence application Aughinish S0026-02
Attachments: ENVIRONMENTAL TRUST IRELAND dumping at sea aughinish.pdf

From: Environmental Trust Ireland <environmentaltrustireland@gmail.com>
Sent: Friday, February 16, 2024 5:00 PM
To: Licensing Staff <licensing@epa.ie>; Tara Gillen <t.GILLEN@epa.ie>
Subject: Dumping at SEa licence application Aughinish S0026-02

Dear Licensing SEction EPA

ENVIRONMENTAL TRUST IRELAND
Environment | Conservation | Biodiversity |
Ecology | Climate Change | Heritage | Advocacy



Re: Dumping at Sea Licence application - EPA - S0026-2

Application to Environmental Protection Agency by Aughinish Alumina Ltd. for a permit under Section 5 of the Dumping at Sea Act, 1996, as amended, for dredging and dumping of up to 668,454 tonnes of material over an 8 year period with a maximum disposal of 83,556 tonnes per annum, as more particularly described in a newspaper notice published on the 17th January 2024.

Applicant - Aughinish Alumina Limited

Location: - Within two European Natura 2000 sites, namely the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA

In or around Aughinish Island, Askeaton, Co. Limerick and in or around Foynes Island, Foynes, Co. Limerick. on a combined site area of c.30 ha.

TO:

**ENVIRONMENTAL LICENSING PROGRAMME,
OFFICE OF CLIMATE CHANGE LICENSING AND RESOURCE USE,
ENVIRONMENTAL PROTECTION AGENCY,
P.O. BOX 3000,
JOHNSTOWN CASTLE ESTATE,
CO. WEXFORD.**

Environmental Trust Ireland raises the following objections against the Dumping at Sea licence application by Aughinish Alumina Limited on the following grounds.

GROUNDS:

1. INTRODUCTION:

- 1.1 Aughinish Alumina Ltd. has been operating an alumina production refinery at Aughinish Island, Co. Limerick since in or about 1983. Bauxite ore is imported from other jurisdictions, mainly Brazil and West Africa and transferred via the marine jetty to the production facility where Alumina is produced and subsequently exported through the marine jetty. Inevitably, there is discharge of dust emissions to air and water during the loading and unloading process at the jetty, which has been reported by a number of observers, including employees of the facility. Dust emissions from the refinery and the red mud disposal area have long been an issue at the facility with past reports of cattle dying, contaminated milk, aborted foetuses etc. correlated with the production and disposal activities. During the production process, a number of by products are generated including bauxite residue, commonly known as red mud. This bauxite residue is stored on site in an extensive area known as the Bauxite Residue Disposal Area (BRDA) which has a currently permitted height 32 metres OD.
- 1.2 The existing facility is an environmental catastrophe waiting to happen. It has a current production output of up to 1.95 million tonnes of alumina per annum which represents 30% of the total alumina produced in Europe. The Aughinish Alumina manufacturing site itself is a mere 100 metres from the Lower River Shannon SAC and the River Fergus and River Shannon Estuaries SPA and significant effects on the qualifying interests cannot be ruled out on the basis of the documentation submitted by the Applicant which is inadequate and incomplete. In 2010, the release of red mud from an aluminium processing plant in Ajka, Hungary in 2010 into the Marcal river resulted in the death of at least 8 people, contamination of the water supply in nearby towns and pollution of the River Danube, which Prime Minister Viktor Orban described as the "*country's biggest ecological disaster*". A similar spontaneous, unpredicted or uncontrolled release with devastating environmental consequences is entirely foreseeable for Aughinish.

2. CURRENT APPLICATION:

- 2.1 The application highlights the conflicting roles of the EPA where on the one hand, the EPA is responsible for environmental protection and on the other hand, it is responsible for granting licences to entities which by their very nature, inevitably

challenge the environmental protection role of the EPA. These roles should be completely separate and distinct from each other.

- 2.2 In the instant case, the licence application relates to 5 separate dumping areas, as defined in the Foreshore Act, as amended which are entirely within the two European sites. The 5 dump areas with a combined total of 30ha are so closely connected to the existing production and disposal activities that they cannot be separated out in any assessment, although it is noted that the Applicant has ignored the existing operations and made this application as though it is working off a blank canvas, which is clearly not the case. The failure to consider the impacts of the existing operational activities of Aughinish Alumina Limited makes the Applicant's documentation seriously defective and fundamentally flawed.
- 2.3 The dump site off Foynes Island of 8.52 hectares (21.05 acres) is part of the site licensed to Shannon Foynes Port Authority. A licence by its nature is personal to the licensee, i.e. Shannon Foynes Port Authority, and cannot be alienated. It would be a material breach of the terms of the Foreshore licence granted to Shannon Foynes Port Authority for it to purport to transfer part or all of that licence to Aughinish Alumina Limited. Further, the Foreshore licence granted to Shannon Foynes Port Authority was assessed and granted under a completely different set of facts and circumstances applicable to the Shannon Foynes Port Authority licence application, which cannot be simply transferred to the current Applicant, Aughinish Alumina Ltd. In the circumstances, the EPA has no jurisdiction to grant a Dumping at Sea licence to Aughinish Alumina Ltd.
- 2.4 In addition, Aughinish Alumina has sought permission to dredge material from four different dredge sites for subsequent disposal in the Shannon Estuary and is intended for the disposal of up to 668,454 tonnes of dredged material over an 8 year period. The methods of dredging employed, including plough dredging bring these 4 different dredge sites with a combined area of 21.57 hectares within the definition of "dumping" in the Dumping at SEA Act, as amended. The 21.57 combined dredge area plus the part of the Shannon Foynes Port Authority dumping area of 8.53 hectares totals 30 hectares. As such, it is within the parameters for which mandatory Environmental Impact Assessment is required, being above 10 ha.
- 2.5 The current application for dumping at sea of up to 668,454 tonnes over an 8 year period contrasts dramatically with the 2016 licence granted to Aughinish Alumina Ltd., also for an eight year period. The 2016 licence which expires on 31 August 2024 permitted dumping at sea of up to 128,000 tonnes over an eight year period with a maximum annual deposition of 16,000 tonnes. It is a concern that Aughinish Alumina is seeking a more than 5 fold increase in dumping volume, no justification has been offered for this massive increase and no explanation

provided for this massive increase in dumping volume. What the developer is seeking is in effect, a reward for polluting.

- 2.6 The applicant has completely ignored both the precautionary principle and the principle of the polluter pays. It is not enough to come along to the EPA when an existing dumping licence is about to expire and simply expect a new licence for further dumping in much greater volumes. Under the provisions of Section 5(2) of the Dumping at Sea Act 1996 as amended, the dumping of substances or material at sea is only acceptable when the EPA is satisfied there are no suitable alternative means of disposal. The Applicant has suggested some alternatives but has ignored the most significant alternatives of reduction in waste or dumped material and it has ignored the possibility of reuse of that material and it has failed to provide any explanation for why such a massive, more than 5 fold increase in dumped material is required. Under the Act, Applicants must demonstrate that all necessary steps have been taken to minimise the quantity of material to be dumped or to render the material less harmful for dumping at sea. A complete and full answer must be provided. This has not been done and as such the EPA is precluded from granting a licence.

3. SEPARATE APPLICATIONS IN CLOSE SUCCESSION:

- 3.1 The Applicant made two separate planning permission applications for the bauxite disposal facility relatively recently. In 2021, it obtained a licence to operate the bauxite disposal area. In the same year (2021), the Applicant applied to significantly expand the facility for which it had just months earlier received a licence from the EPA. That application sought *inter alia* expansion of the bauxite residue disposal area (BRDA) with an increase in height to 44 metres OD, the deposition of an additional c. 8.0 million m³ bauxite residue over the lifetime of the development, an expansion of the permitted borrow pit quarry to provide for an additional 380,000m³ of rockfill from blasting and crushing of rock. The proposed expansion, if permitted, would have further exasperated the environmental, human and animal health toxicity problems correlated with Aughinish Alumina production facility. Although An Bord Pleanala granted planning permission, this permission was quashed by the High Court last year in Judicial review proceedings brought by Environmental Trust Ireland. The matter was remitted back to An Bord Pleanala, which following consideration post Judicial Review has advised the parties that the Applicant has been invited to update its reports. In the instant case, the Applicants reports are completely inadequate and do not fully or properly address the major environmental issues pertaining to the application.

4. NO EIAR

Clearly, the Dumping at Sea licence proposal is disjointed, presented in a piecemeal manner and constitutes project splitting contrary to the provisions of EU law. The current application relates to what are described as four dredge areas, i.e. dumping areas which give a combined total of 21.57ha. Although individually, these dredge dump areas may each be below the mandatory requirement for EIA, collectively they are not and they are part of the same application. Added to this is the dumping area of 8.43 ha licensed to SFPC which forms part of the same application.

The failure to provide an EIAR to enable the EPA conduct an EIA renders this application invalid and the EPA has no jurisdiction to grant a licence.

Insofar as the State may have failed to transpose or to properly transpose the 2011 EIA Directive, as amended by the 2014 Directive into the Dumping at Sea Act, 1986, as amended, there is a positive obligation imposed on the EPA to purposefully construe and interpret the requirements of the Directive in order to ensure that its decisions are made in accordance with EU law. In this case, the EPA is precluded from granting a licence.

5. No Radiological Assessment since 2008

- 5.1 Although the existing Aughinish Alumina facility has considerably expanded since 2008, there has been no assessment by the Radiological Protection Institute of Ireland since 2008, now part of the EPA. It should be noted that radioactive isotopes of Thorium 232 and Uranium 238 are naturally occurring in bauxite and have extremely long half-life periods. Bauxite and bauxite residue dust emissions of significant amounts are present in air and water at and near the facility. Notwithstanding this fact, a mere 3 samples were taken on behalf of the Applicant and simply sent to the EPA / RPII laboratory for measurement of radioactivity in the samples taken. This is not sufficient. It is not clear if individual radioisotopes were measured from the samples provided by Aughinish Alumina or if it was an overall measurement. In any event, there should have been a full radiological assessment of the entire facility and surrounding areas which is long overdue and a comprehensive report prepared to inform members of the public in accordance with the Aarhus Convention.
- 5.2 It is noted that the European Commission is yet to make a decision on whether or not to refer Ireland to the Court of Justice of the European Communities in respect of Ireland's apparent failure to comply or to fully comply with its obligations under the Spent Fuel and Radioactive Waste Directive (Council Directive

2011/70/Euratom). Ireland as an EU Member State is required to draw up and implement a national programmes for the management of all spent fuel and radioactive waste generated in this country, from generation to disposal. Aughinish Alumina Limited has not produced any report or assessment dealing with the management of all spent fuel and radioactive waste. It is unlikely that the dredged or dumped material does not contain radioactive material given the multiple opportunities for dust emissions from bauxite ore to lodge in the receiving water.

6. Groundwater vulnerability and Aquifer Vulnerability:

Groundwater vulnerability over much of the Aughinish site is high to extreme and there are karst features. Previous groundwater monitoring revealed excess amounts of arsenic and mercury. No hydrological assessments were conducted and no assessment of groundwater or aquifer vulnerability were conducted in respect of the current Dumping at Sea application.

7. AA ASSESSMENT and AA SCREENING - Inadequate and deficient:

The Applicant applied a completely arbitrary Zone of Influence of 15km in its AA Assessment. This should have been assessed on a case specific basis particularly having regard to the nature of the installation, heavy metal toxicity and so forth.

Distances to nearby Natura 2000 sites are:

Lower River Shannon SAC 002165	0.01km
River Shannon & River Fergus Estuaries SPA 004077	0.01 km
Barrigone SAC 000432	0.45 km
Stack's to Mullaghareirk Mts.,	
West Limerick Hills & Mt. Eagle Bog SPA 004161	6.61 km
Askeaton Fen Complex SAC 002279	8.13 km
Curraghchase Woods SAC 000174	11.05 km

Notwithstanding the proximity, 5 of these European sites were ruled out at AA Screening stage for further assessment without sufficient scientific justification for such omissions. The Stacks to Mullaghareirk Mts., West Limerick Hills & Mt. Eagle SPA is designated for Hen Harrier. Given the precarious state of Hen Harrier populations currently, the judgments in **Kelly** and **Connolly** should have been applied carefully to this protected species, which did not happen. Reliance on desk top studies is completely insufficient and the National Biodiversity data

website is so out of date that many protected species, known to occur in particular areas are not even mentioned in it as occurring.

Similarly, there is no logic to the exclusion of Askeaton Fen Complex from a Stage 2 NIS Assessment. It contains *Cladium* rich fens and several very sensitive lichen species essential to the habitat designation and are extremely susceptible to any dust from dredging and dumping activities and other impacts such as acid rain.

Likewise, the exclusion of Killarnery Oak woods from consideration and progress to NIS, apparently because it is outside the 15km Zone of Influence is not in compliance with the standard required for such exclusion.

In respect of the two designated sites, the Lower River Shannon SAC and River Shannon & River Fergus Estuaries SPA which did proceed to Stage 2 Assessment, again, the NIS is completely inadequate and deficient in several important respects. Other than a mammalian study and a benthic study, there were no surveys of birds or other protected species. There is scientific expert opinion on the impact of industrialised activities on bottlenose dolphins which are very sensitive to metal toxicity and many of the resident population of bottlenose dolphins in the Shannon estuary exhibit skin lesions from such metal toxicity.

Barrigone SAC is designated for habitats and one fauna species; Marsh Fritillary *Euphydryas aurinia*. "

Improperly ruled out at AA Screening:

Cumulative and in combination effects were not properly considered or at all.

No adequate or proper assessment has been conducted under the Habitats Directive or under the Environmental Impact Assessment Directive of the impact of the water and air emissions on ecosystems, species or on European sites. The documentation submitted by the Applicant is inadequate for the EPA to reach a conclusion that no reasonable scientific doubt remains that the proposed development will not have an adverse effect on the integrity of the European sites.

The cumulative and in combination assessments are completely inadequate and in particular of the significant industrial activities in the wider area include the currently coal-fired power station at Moneypoint on the opposite side of the estuary; the oil-fired power station at Tarbert or the Irish Cement facility at Mungret, Limerick. These have not been properly or adequately addressed in the

licensing application. In fact, they have ruled out completely from consideration rendering the AA Assessment defective and fatally flawed.

8. NON COMPLIANCE WITH PUBLIC PARTICIPATION REQUIREMENTS:

The proposed licensing project and the assessment of it by the EPA is required to comply with the public participation requirements of the Aarhus Convention. The documentation provided by the Applicant is inadequate and not conducive to effective and meaningful public participation. For example, the chemical sampling for the benthic sediments indicates only four samples were brought forward for chemical analysis, which is itself completely inadequate for statistical analysis. The sampling methodology is completely suspect with no chain of custody of samples and so forth. Significantly, there has been no attempt to interpret or explain the analytical measurement results obtained in the form of a report or some evaluation of the measurement results. Further, where chemical measurements results are produced, no range of upper or lower limit values has been produced, just simply stand alone measured figures which have no context or no meaning in the absence of a range of permitted values in accordance with the methodology chosen and the calibration thereof. As such, the information has not been provided in a format required for effective and meaningful public participation as required under Aarhus.

9. Climate Change:

It is a stated intention of the Applicant to level the sea bed at the four dredge sites. The bathymetry maps indicate variable topography on the sea bed and river floor. The Applicant has completely failed to take into account the crucial role of the organisms which inhabit the sea bed and river floor in carbon sequestration. Over 10% of carbon is sequestered by these organisms. The Applicant and the EPA is required to have regard to the Climate and Biodiversity Crisis. The removal of such vast areas of the sea bed in this application are completely in conflict with climate change mitigation measures.

The documentation submitted by the Applicant has failed to address or properly address the anticipated increased frequency of flooding, extreme weather and rainfall events. Instead of 1 in 1,000 year flood events, or 1 in 200 year or 1 in 100 year flood events, the spectre of storm surges up the Shannon estuary is a major factor in flooding which has been ignored. Indeed, in 2014, there was major flooding in the King's Island Area of Limerick City as a result of storm

surges in the Shannon Estuary which resulted in a major flood relief scheme. A similar flooding in Aughinish which is closer to the mouth of the estuary would have devastating environmental impacts. Likewise, extreme weather and rainfall events have not been assessed for their impacts on any part of the Aughinish works and in particular, on the bauxite residue disposal area which is not sealed and the vast red mud dust area is readily visible to an observer viewing the estuary from the Coast Road between the tourist areas of Foynes, Loughill and Glin. Leachate and run off from the hazardous salt cake disposal cell and the bauxite residue disposal area into the estuary and the groundwater has not been properly considered in any aspect of the Applicant's documentation.

**10. Water Framework Directive
Bathing Water Directive
Marine Strategy Framework Directive 2008/56/EC,
Priority Substances Directive 2008/105/EC.**

The Applicant has failed to consider and properly apply the provisions of these Directives as they relate to the Dumping at Sea licence application.

For the above mentioned reasons, Environmental Trust Ireland urges the EPA to refuse this licence application which poses serious environmental risks, is detrimental to the integrity of the European sites and is contrary to the proper planning and sustainable development of the area.

Environmental Trust Ireland reserves the right to make further submissions in this matter.

Dated this 16th day of February 2024.

For and on behalf of Environmental Trust Ireland.

Environmental Trust Ireland,
C/O Michelle Hayes, Solicitor,
President, Environmental Trust Ireland,
3 Glentworth Street,
Limerick.

