

An
Bord
Pleanála

Memorandum ABP 311565-21

To: Board Member
From: Paul Caprani Senior Planning Inspector
Re: Oral Hearing Determination
Date: May 3rd 2022.

1.1. Introduction

- 1.1.1. Aughinish Alumina Limited have applied for planning permission under the provisions of Section 37E of the Act for the expansion of the Bauxite Residue Disposal Area (BRDA), The Salt Cake Disposal Cell (SCDC), an extension of the permitted borrow pit to the east of the BRDA, the continued use of the existing stockpile area of the south of the subject site and upgrades to the existing water management infrastructure.

1.2. The Site

- 1.2.1. Aughinish Island is located on the southern side of the Shannon Estuary approximately 8 kilometres northwest of Askeaton and c.33 kilometres west of Limerick City. The northern portion of the island accommodates the Aughinish Aluminium Processing Plant. The island is separated from the mainland by the Poulaweala Creek, which separates the south-eastern coast of the island from the mainland. The Robertstown Creek separates the south-western coastline of the island from the mainland. The village of Foynes is located approximately 2 kilometres further west of the site. The Limerick Foynes railway line runs to the south of the island, as does the N69 National Secondary Route between Limerick

and Foynes. Lands to the south-west of the processing plant accommodate Phase 1 of the bauxite residual disposal area (BRDA). This landfill area accommodates residual or leftover bauxite associated with the processing plant in the production of alumina (see below for more details). The existing area is surrounded by retaining perimeter stack of walls constructed over rock fill. As the bauxite or red mud is continually deposited on site, these stack walls are raised systematically in 2 metre stages and are stepped back from the outer perimeter with each additional stage. A salt cake disposal area is also located within the BRDA. Lands to the immediate north of the existing Phase 1 BRDA between the northern boundary and the River Shannon accommodate a bird sanctuary. To the immediate north-east of the existing BRDA, a large storm water pond is located.

- 1.2.2. The access road from the N69 to Aughinish Plant runs northwards in close proximity to the existing eastern boundary of the BRDA. The company sports facility is located in close proximity to the eastern boundary of Phase 1 of the BRDA, between the landfill area and the access road. The Robertstown River runs along the south-western boundary of the existing landfill area.

1.3. **The Proposal**

- 1.3.1. The planning application area spans a total area of 222 ha. The overall site extends to 601 ha and includes the subject site, the alumina refinery plant, nature trails and ancillary areas. The refinery plant extracts alumina (also known as aluminium oxide) from bauxite raw material. Currently the plant can produce a maximum production rate of 1.95m tonnes of alumina per annum. Alumina is extracted from the bauxite under a 5-step process involving (a) crushing the bauxite and mixing it with a caustic soda solution, (b) heating and adding pressure to the bauxite slurry to produce a sodium aluminate solution (c) Clarification of the solution to allow the sodium aluminate solution to settle out (d) As the sodium aluminate is cooled, it is agitated and seeded with aluminium hydroxide crystals. (e) Lastly the aluminium hydroxide crystals are heated to over 1,100° C to remove water. A fine white power is produced which is exported by ships overseas to be smelted.
- 1.3.2. Bauxite residue from the above-described process is pumped as a thickened residue into the Bauxite Residue Disposal Area (BRDA). The Bauxite is then dried in the disposal area. The drying and compaction of the residue is assisted by mechanical

plant and natural evaporation. As the residue becomes more compact, it increases in density. Other residues of the production process including salt cake, lime grits and process waste these are also deposited within the BRDA. The process sand, another by-product of the development process is used to construct ramps and access roads within the disposal area.

- 1.3.3. The bauxite residue material is classified as a solid 'non-hazardous' material. The salt cake is classified as 'hazardous' according to the European Waste Catalogue and is therefore placed in specially engineered cell within the BRDA.
- 1.3.4. The existing BRDA has a combined size of 184 ha. It comprised originally of two separate disposal areas (Phase 1 to the north and Phase 2 to the south) which have been merged. The structure of the disposal area is characterised by expanding terraced walls moving outwards from the centre. These are known as 'Stage Rises'. The outer perimeter wall is constructed of either till or rock fill and incorporates a lining which comprises of a mixture of natural and geosynthetic materials with low hydraulic conductivity. The BRDA is surrounded by a Perimeter Interceptor Channel (PIC) which collects water from the BRDA and conveys it via pumps to the Effluent Clarification System and /or to the Storm Water Pond. Bauxite residue is placed in the disposal area through a network of pipes and spigot points and the residue is deposited via a system of sprinklers which rotate and distribute the residue over an area of c75m x 75m.
- 1.3.5. The proposed development seeks to increase the capacity of the BRDA. It will result in the proposed increase in height of c12m above the currently permitted stage 10 level (c 32m OD) to a final stage 16 level (c 44m OD), an increase in the overall height of 12 m. No increase in the footprint of the disposal area is proposed. The methodology for building the perimeter wall will be the 'upstream method' which involves the construction of rock fill embankments in 2 meters lifts. It is intended that the increase in storage area will extend the lifetime of the facility up to 2039.
- 1.3.6. Other works include a vertical extension to the existing Salt Cake Disposal Cell (SCDC) to accommodate a further disposal of salt cake resulting in an increase in height of c.2.25m. The SCDC is within the BRDA near the eastern perimeter of Phase 1.

- 1.3.7. It is also proposed to extend the borrow pit located to the east of the BRDA from c.4.5 ha to 8.4 ha – (an increase in area of 3.9 ha). This will provide an additional 380,000m³ of rock fill material for provided additional capacity of the BRDA.
- 1.3.8. The proposal will also involve modifications to the water management infrastructure to facilitate the proposed increase in storage.
- 1.3.9. The application is accompanied by a detailed EIAR and a detailed NIS.

1.4. Planning Authority Submissions

- 1.4.1. Limerick Co Council submitted a detailed planning report and recommendation in respect of the proposed development. It considered that the application submitted was well prepared with a comprehensive list of supporting documentation. Two points of clarification are requested in relation to groundwater vulnerability and flora protection orders in the area. It nevertheless recommends that should the above points be clarified, a total of 8 conditions should be attached to any grant of permission.

1.5. Prescribed Bodies

Submissions have been received from the following prescribed bodies. The main issues raised relate to the following:

DAU:

Archaeology

- No Underwater impact assessment was received. The Department recommends the implementation of mitigation measures as set out in S. 5 of the EIAR

Nature Conservation

- The site is located outside of; but adjoins the Lower River Shannon SAC and SPA. There is to be no increase in the footprint of the existing BRDA storage facility. The barrow pit will be extended to provide for the necessary stone for construction, the borrow pit is also outside any designated areas.

Transport Infrastructure Ireland:

- No Specific Comment

Irish Water:

- No objection to the development subject to conditions.

Irish Aviation Authority:

- No objection subject to conditions.

1.6. Observers

1.6.1. Submissions have been received from 4 no. observers – none of which specifically requested an oral hearing. The main issues raised relate to the following:

- Concerns are expressed that a catastrophic failure of the stage rises/ retaining walls which contain the disposed material could occur resulting in a serious environmental disaster.
- Potential impact on groundwater and air pollution from fugitive dust arising from the storage area. The non-hazardous classification of the red mud is questioned.
- There are social justice and environmental principles which are being ignored in the removal of bauxite in West Africa.
- The proposal gives rise to excessive energy consumption and contravenes principles of sustainability in utilising finite resources.
- There has been failure to carry out a proper AA and EIA in respect of the development
- Applicant needs to be assessed in the context of COMAH / Seveso Regulations.
- The applicant failed to properly address the issue of climate change in the documentation submitted particularly in relation to a seismic, storm, tidal wave or storm event.
- Blasting from the Borrow Pit could undermine the structural integrity of the walls containing the bauxite disposal area.
- Mining companies are not spending appropriate money on structurally sound retaining walls or dams.

- Dolphins in the Lower River Shannon could be adversely affected from red mud spillage or from rock blasting


1.7. Oral Hearing Recommendation

Having consulted the file in detail, including the NIS and the EIAR and the submissions on file, not one of which requested an oral hearing, I consider that the Board in this instance should not hold an oral hearing for the following reasons:

- The vast majority of the issues raised are common issues many of which have come before the Board before in previous applications at this site and these issues can be adequately assessed in the absence of an oral hearing.
- Few issues of technical nature were raised in the grounds of appeal which would warrant an oral hearing, in order to illicit further details of technical matters which would assist the Board in its determination of the application.
- The application was accompanied by an EIAR and NIS and other supporting documentation. Having consulted the documentation submitted with the application, I believe there is sufficient information on file to allow the Board to adequately assess all the issues without the need for an oral hearing.
- The Planning Reports submitted by the planning authority give a detailed and robust assessment of local planning policy relating to the site.

- 1.7.1. It is my considered opinion, having reviewed in detail the information contained on file and the submissions made in relation to the application, that an oral hearing would provide little additional information in assisting Board in its determination of the application. Therefore, there would be no justification in my considered opinion to hold an oral hearing for Reg Ref ABP 312146-21.

1.7.2. I consider that the matters raised by all parties can be comprehensively addressed by a further information request written responses on behalf of the applicant. On obtaining the additional information, the Inspector can proceed in preparing a final report and recommendation to the Board. The absence of an oral hearing may enable the Board to determine the SID application in a more expeditious manner.


Paul Caprani
Senior Planning Inspector

May 3rd 2022

*Noted
Checked
H/S/22*