

Incinerator Bottom Ash



POSITION STATEMENT



Incinerator Bottom Ash

Introduction

Incinerator Bottom Ash (IBA) is material discharged from an Energy Recovery Facility (ERF) incinerating municipal solid waste. The weight generally represents around 23% of the input waste. It can contain varying quantities of glass, ceramics, brick and concrete in addition to clinker and ash, depending on the waste being burnt. Once large objects and metals have been screened out, the remaining ash can be processed into a secondary aggregate that has good pozzolanic (cement-like) properties, so can act as an excellent substitute for natural aggregates. This can be used in road sub-base, bulk fill, asphalts, foamed concrete and cement bound materials. The Highways Agency accepts the use of processed IBA as an aggregate for bound and unbound layers in road construction.

By using IBA in this way, landfill avoidance of up to 99% can be achieved, and valuable ferrous and non-ferrous metals and glass are recovered. IBA can also be used as daily cover in landfills, but landfill tax may be incurred.

Veolia Environmental Services now recycles the majority of the IBA from all of its ERFs.

The issues

IBA is a sustainable source of competitively-priced aggregate that displaces primary aggregate extracted from quarries. It has a lower density than primary aggregate, so is more effective as bulk filler. Recycling IBA avoids landfill disposal and although it is essentially inert, containing no more than 3% carbon, using it as a secondary aggregate makes space available for other wastes, as well as avoiding the landfill tax liability. The use of secondary aggregate uses less transport than primary aggregate by using IBA processing plants close to the building developments. Substantial tonnage of both ferrous and non-ferrous metals can be recovered from IBA and the cement-like properties of processed IBA give enhanced performance over virgin aggregate. IBA can contain metals such as lead and zinc, arising from the wastes treated at the ERF. However, it is rigorously tested in line with European and UK guidance to ensure that their concentrations do not constitute a hazard.

IBA is derived from waste so under European and UK regulations, despite being treated, it remains a (non-hazardous) waste until it is put into the final application. Prior to being used, a permit application has to be submitted to the Environment Agency (EA), who will ensure it is not being located on watercourses and the application meets EA requirements. In May 2002, the EA published a report on the safety of incinerator ash, indicating that its use posed no exceptional risk to human health.

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OUR POSITION

1. Veolia Environmental Services supports the use of IBA as a secondary aggregate and continues to develop the processing of incinerator ash for this use. Using IBA as a secondary aggregate makes a positive contribution to lowering the carbon footprint of waste management, thus helping to mitigate climate change.
2. Our processed IBA meets the requirements laid down by the Environment Agency and is not hazardous.
3. Veolia Environmental Services is following the establishment of an "end of waste" criteria. This will remove waste regulation obligations for prepared IBA materials. However, we are content to continue with the current regime if required, especially if that provides greater confidence in safe treatment and use.
4. We believe that as metals, glass and aggregate recovered from IBA are recycled in the same way as materials collected through municipal collections, they should be counted within local authority recycling performance, as they are in other EU countries. Veolia is pleased that the Government has agreed to this in the case of metals, but believes the total recycled ash stream should be included.

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