Blast Furnace Slag as a by – product

Background
The status of Blast Furnace Slag (BFS) has been disputed with industry for a number of years. In 2006, BFS was put forward for consideration by the Waste Protocols Project which aimed to establish the point at which BFS ceased to be waste. A Technical Advisory Group (TAG) comprised of industry, Environment Agency and WRAP (Waste & Resources Action Programme) representatives, drafted a technical report on this subject. However, before the work of the TAG was complete, the EU Commission published an Interpretative Communication on waste and by-products, which gave BFS as a possible example of a by-product:

“BFS is produced in parallel with hot iron in a blast furnace. The production process of the iron is adapted to ensure that the slag has the requisite technical qualities. A technical choice is made at the start of the production process that determines the type of slag that is produced. Moreover, use of the slag is certain in a number of clearly defined end uses, and demand is high. BFS can be used directly at the end of the production process, without further processing that is an integral part of this production process. This material can therefore be considered to fall outside of the definition of waste.”

The Communication did state that its examples were illustrative, rather than definitive. It was therefore necessary for the Environment Agency to undertake its own independent assessment in order to decide whether BFS produced in the UK could be classified as a by-product. For the purposes of this assessment the technical report produced for the Waste Protocols Project was revised and submitted to the Environment Agency.

By-product test
The Interpretative Communication received from the EU Commission outlines three tests which a material needs to fulfil if it is to be classified as a by-product. It must be shown that:

1. The material is certain to be used.
2. No further processing is required for the use, and.
3. The material is used as an integral part of the continuing production process.

The Communication also points out that additional factors may be relevant in deciding whether a material should be classified as a by-product. These include the environmental impact of using the material, and whether any special precautions are needed for its use.

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Evaluation of BFS as a by-product

Having considered the content of the technical report on the production and use of blast furnace slag\(^2\) in the light of the Commission Communication, the Environment Agency is now satisfied that BFS produced in the UK as Air Cooled Blast Furnace Slag or Ground Granulated Blast Furnace Slag is not a waste.

It should be noted that any imported BFS must also fulfil the relevant legal criteria in order to be shipped as a non-waste.

Consideration of environmental risks

In coming to our decision, we have considered the risks identified in the technical report concerning the use of BFS in unbound form, where there may be run off to land or contact with water. We accept that there is some degree of risk attached to the use of BFS in unbound form, which is mitigated by the industry applying certain well-established good practice measures. We have concluded that the necessity for these measures does not carry the implication that BFS is a waste.

If an environmental offence is committed concerning the use or handling of BFS (for example if water pollution is caused or if BFS is discarded instead of being used as a by-product and there is a waste offence) we can take action following the guidelines in our Enforcement and Prosecution policy:


For further advice please call the customer service line on 08708 506 506.

http://www.environment-agency.gov.uk/subjects/waste/1019330/1334884/1844839/?lang=_e