



Consultee Response to CERC Environmental Permit Application

Consultee
St.Dennis Anti Incinerator Group (S.T.I.G.)

Bottom Ash Safety



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KEY FAILURES

SITA's application to the Environment Agency for a permit to operate a mass burn incinerator is fundamentally flawed and therefore a permit should not be issued.

The key failure areas of the application within this section are:

- Revisions of ecotoxic classifications.
- Any possible future revisions.
- Heavy metal content of bottom ash.
- Toxicity of bottom ash.
- Effects of landfilling toxic bottom ash.
- Testing of bottom ash for toxicity.
- Toxicity of bottom ash used for 'aggregate'.
- Disposal of bottom ash if found hazardous.
- Combined environmental effects of production and transportation of bottom ash and APC residues.

Bottom Ash Safety

BOTTOM ASH SAFETY

According to the Environment Agency's website, Gary Bower (the EA's Technical Advisor – Hazardous Waste), from 27 Oct 2006 the Environmental Services Association (ESA) facilitated an initiative to identify a protocol for the ecotoxicity testing of Incineration Bottom Ash (IBA) using a direct testing method on IBA.

The study showed that: "Almost certainly, zinc will be present in IBA, commonly as zinc oxide amongst other zinc substances. The recent revision to the Approved Supply List (ASL) (version 8) introduced an ecotoxic classification for zinc oxide (H14 by R50/53 Very toxic to aquatic organisms and may cause long term effects in the aquatic environment). The substance was not classified as ecotoxic in previous versions. The assessment of the H14 status of IBA has historically been dependent on the level of 'total' lead substances in the sample. However, the recent amendment to the ASL means that zinc substances need to be considered in addition to lead and other ecotoxic heavy metals. Levels of lead and zinc in a number of isolated compliance monitoring samples have exceeded the hazardous waste threshold for H14".

Further investigation revealed that about 12% of the bottom ash samples tested was found to be hazardous. Samples came from a wide range of incinerators, so there is a strong argument that each batch should be tested – or all the ash classified as hazardous waste. The relevant incinerators were: Wolverhampton; SELCHP; Edmonton; Coventry; Kirklees; Billingham and Dudley.

And what of the dangerous and hazardous Flue Gas Treatment residues?

The APC residues are cited as hazardous and so will require treatment and, will be landfilled in Gloucestershire.

Has the distance travelled from the incinerator to this landfill site been factored into the Life Cycle Analysis for the plant with regard to emissions from these vehicle movements?