

# Wingmoor Farm East: Integrated Waste Management Facility

## Permitted Activities

### Air pollution control residues

Air Pollution Control (APC) residues are very fine powders (like talcum powder), which are chemically consistent, with a very high lime content. Just like cement, the alkaline residues are classified as an irritant, which is why the waste residues are defined as hazardous.

APC residues are the by-products of cleaning up combustion gases from high temperature incineration processes. They are generated by energy from waste facilities, combined heat and power (CHP) plants, power plants used in sheet glass production, paper mills and biomass (straw, wood and chicken litter fuelled) power plants. In 2007\*, some 26,700 tonnes of APC residue were deposited, of which 58% came from papermills, 28% from energy from waste plants and 14% from biomass plants and other sources.

APC residues are delivered to the site in purpose-designed, sealed vacuum tankers, driven by appropriately trained drivers. **1**

Once the paperwork has been checked, the tanker uses compressed air to discharge its load to one of four 75 tonne capacity silos. **3**

During silo filling, filters at the top of each silo exhaust displaced air through double bag filters, removing the dust trapped in the air. **4**

Storage tanks **2** hold clean water, landfill leachate or liquid effluent.

The residue delivery system allows different proportions of the contents of different silos to be blended before treatment. **5**

In the mixing vessels, rotating paddles blend the residues with the water producing a final mix of typically 60% residue/40% liquid by weight. **6**

The conditioned residues (now the consistency of wet sand) are then loaded into a dump truck below the mixing vessel and transferred to an engineered hazardous waste cell in the landfill. This is then levelled and compacted by bulldozers to achieve a solid, compacted surface. **7**  
The entire mixing system is computer monitored and controlled and all components are regularly inspected – internally and externally as appropriate. **8**

\* 2007 statistics are used throughout this section as the 2008 consolidated/validated data was not available at the time of going to press



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