

## **Solid Recovered Fuel at Ribblesdale**

### ***What is the generic name of the fuel?***

It is SRF – Solid Recovered Fuel

### ***What is SRF?***

SRF is a solid fuel which acts as a replacement for fossil fuels. It is manufactured from selected paper, plastics and fibre wastes including sorted and processed municipal wastes that would otherwise be disposed of in landfill sites. The fuel is completely consumed in the cement making process. SRF has been used at Hanson Cement's works in Ketton since 1998.

### ***Why does Hanson Cement want to use SRF at its Ribblesdale works?***

Hanson Cement's kiln at Ribblesdale has successfully used a range of alternative fuels since 1992 is specially designed to use SRF. Using SRF will also reduce the company's reliance on precious finite fossil fuels such as coal and prevent the material from otherwise going to landfill.

### ***Is SRF local to Ribblesdale works?***

Initially it will not be possible to source locally. We need material that is prepared to the highest possible standards and specifications. At the moment there are very few plants in the UK that meet the stringent quality expectations. We would like to use local material in the future should it become available.

### ***What tonnage will be used per annum?***

Up to 50,000 tonnes

### ***What percentage of total fuel does this equate to?***

Exact details will relate to the results from the trial use of SRF, however a figure of around 50% of the total energy consumption of the kiln.

### ***How many extra lorry movements per day?***

There will be around 10 extra lorry movements per day which would be slightly off set by the reduction in fossil fuel deliveries. This is clearly a very small percentage of the current lorry movements.

### ***Does SRF smell?***

The fuel has a slight "earthy" odour which maybe noticeable very close (within 5 metres) to the handling system.

### ***Any health issues?***

No. The fuel is classified as non hazardous and is completely safe to handle. Robust procedures are in place to deal with treatment, handling and transportation of SRF. We have a lot of experience of using this fuel at our Ketton plant. The combustion of SRF is at very high temperatures and emissions from the kiln will meet the highest standards set by the Environment Agency.

### ***Will it attract vermin?***

No. All food waste is removed during the extensive processing of the final fuel.

### ***How much is stored on site?***

Facilities for storage on site will be linked with the proximity and feed rate of various potential suppliers so that continuous use can be maintained during peak and off-peak times for both Hanson Cement and the supplier; therefore some short-term storage is envisaged.

### ***When did Hanson Cement first announce its intention to use SRF?***

Hanson Cement have always said SRF is part of the overall alternative fuel plan for the company; this was first used at Ketton followed by Padeswood and the Liaison Committee at Ribblesdale was informed of the intention to use this fuel at Ribblesdale in September 2010.

***Who are the suppliers?***

No contracts are in place for Ribblesdale, however existing suppliers will be utilised such as Shanks Waste Management Limited.

***How many tonnes of coal will this save?***

Each tonne of SRF burned saves about  $\frac{3}{4}$  tonne of coal. If we burn 50,000 tonnes of SRF, this could save 37, 000 tonnes of coal each year. As a large percentage of SRF is biomass this is a renewable resource.

***Will emissions go up or down as a result of using this fuel?***

We do not expect to see a change in any of the emissions from the kiln with the exception of carbon dioxide (CO<sub>2</sub>). This will be reduced for two reasons the carbon content of SRF is lower than coal for the same quantity of energy provided and due to the biomass content which is considered to have zero CO<sub>2</sub> emissions associated with it.

***This material is just a waste, not really a fuel?***

Whilst the source material is someone else's waste, there are major and complex production steps required before the material can be considered at suitable by either Hanson Cement or the Environment Agency. The use of the material as a replacement for fossil fuels, to recover the available energy, is a vital part of the overall recycling process for the other streams from the waste management facility.

***Are local authorities/Government in favour of usage?***

Yes local authorities have to divert material away from landfill sites and if they cannot meet set targets then the penalties can be severe