



Recycling & recovery

A vital link in the paper chain

Stora Enso views recovered fibre as an important raw material – and a vital link in the paper chain. Stora Enso's production facilities used 2.1 million tonnes of recovered fibre in 2001, approximately the same amount as in 2000. All of Stora Enso's products are recyclable.

The main investment decision of the year in this respect concerns the construction of a new newsprint production line to utilise recycled paper at Langerbrugge Mill. The project also involves a new power plant, which will incinerate all the pulp mill's de-inking sludge, and the rebuilding of one of the mill's existing paper machines for Super Calendered paper production. The new newsprint line is expected to begin production in the first half of 2003.

Duluth Recycled Pulp Mill introduced two new products during 2001, enabling the mill to use a broader selection of recycled grades, and find sources of recovered fibre closer to the mill. Recycled pulp production increased by 15% from 2000 to 2001, largely due to the launch of the new products.

Also during 2001, Keräyskuitu Oy in Karhula invested in reject handling processes designed to separate materials according to their coarseness, so finer reject materials can be utilised for landscaping. This has reduced the amount of waste going to landfill by 90%. The renewal of the flotation process for de-inking at Keräyskuitu Oy was completed at the end of 2000, and in its first year of operation the renewed process improved fibre yield by 2%.

Energy recovery the last resort

The paper and board industry is not the only sector to value recovered fibre. But Stora Enso supports the view of the forest industry, that wherever feasible the material content of recycled paper should be utilised rather than merely recovering its energy content.

Already today practically all the available paper of certain grades is recycled in some regions. In Central Europe, for instance, many mills now manufacture newsprint utilising 100% recycled paper.

Useful raw materials from residuals

Stora Enso has continued to implement projects designed to improve the efficiency of resource utilisation and turn residuals into useful raw materials. This work has resulted in a reduction of 9% in the company's overall need for landfill waste disposal during 2001. Several major projects implemented in 2001 have made important contributions in this respect.

Four of Stora Enso North America's five wastewater treatment plants now have permits allowing the use of their residuals as fertilisers or for soil improvement on agricultural land. The Water Renewal Center and Port Hawkesbury Mill received their permits during 2001. Port Hawkesbury Mill began spreading fertiliser on 20 local farms during the summer of 2001, and the Water Renewal Center will begin similar operations in January 2002. The amount of sludge ending up as landfill is expected to fall by around 60%.

The Canadian province of Nova Scotia has aimed to reduce the amount of solid waste sent to landfills by at least 50%. The Port Hawkesbury Mill is well above this target, thanks to the adoption of a new waste management programme.

Reisholz Mill installed a new filter in the water loop of one of the mill's paper machines, reducing quantities of fibrous sludge by 50% in 2001.

In Sweden, four mills have been actively developing wind and sun drying techniques for logging residuals, fibre residuals and chemical sludge. The dried products are then used either as bio-fuels or for soil improvement, and this has reduced the amount of waste sent to landfill by some 90 000 tonnes.

For more information about residuals in energy production, see page 20.