Conversion of paper mill sludge into absorbent

CAPS

The main goal of the CAPS project is for the paper industry to send paper mill sludge (PMS) to the CAPS recycling lines so that it can be converted into an absorbent material capable of cleaning up oil and chemical spills on the water surface and/or spills of hydrophobic substances on hard surfaces (e.g. oil stations, mechanical workshops). Thanks to the CAPS recycling solution it is possible to produce a material from the paper mill sludge (PMS) that absorbs more than 99% of the initial quantity of a hydrophobic substance on the surface of the water. The absorbent can be used in a dispersed or packaged form (e.g. pillows, booms). The Project aims to market replicate both the technology for a sustainable recycling of PMS as well as the sustainable product (CAPSorb). It is conceived on an inter-sectoral approach and provides for a variety of environmental and economic benefit to different EU sectors (paper industry, ports, marinas, tourism etc.) with the consequent increasing in the competitiveness of EU enterprises.

Benefits

The biggest environmental benefit will be the decreasing of GHG emissions. The main economic benefits may be summarised as follows: –Cost reduction for paper industry due to waste quantity reduction –Cost reduction for ports, oil industry and tourism

Results

- During the three years of the EU project it was planned to industrialise the CAPS conversion production lines in Slovenia and to set up a new production line in Finland, both with a yearly capacity of approx. 20,000 tonnes of PMS (10,000 tonnes of CAPSorb).
- Beyond that, the aim is to meet the estimated increase in consumption of the sustainable absorbent CAPSorb to around 570,000 tonnes per year fourteen years after the project has ended, this by setting up as an average two new CAPS production lines per year (capable of processing 40,000 tonnes of paper mill sludge), either directly or by granting licenses to other operators throughout the EU, after the EU project period.
- The production in Slovenia has started (March 2012), while the production line in Finland will be set up after the end of the project period. The long term goal for the CAPSorb absorbent is to be used by 20% of the potential market in Europe (including EU ports, yacht marinas, petrol stations, oil refineries, mechanical workshops, restaurants and hotels) within the next 15 years.

Partners and coordinator

TOC, Tehnološko Okoljski in Logistični center d.o.o. [1] Slovenia
Contact

TOC, Tehnološko Okoljski in Logistični center d.o.o.
3A Dekani
SI-6271 Dekani Zahodna Slovenija
Slovenia

Contact point

Name: Budan, Ankica
E-mail: ankica.budan@siol.net
Tel: +38640218352

Budget

Overall budget: 1.538.343,00 € (EU contribution: 60,00 %)

Key documents

- Project information sheet
  DOC 382 KB

In brief

Sector: Recycling

Duration: 01/09/2009 to 31/08/2012

Contract number: ECO/08/238979

Website: http://www.toc.si/caps/

Tags:
  - sludge
  - water

Related projects

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