

CO-PROCESSING SUCCESS STORY

LATVIA - SCHWENK

Title: Innovative clean-up: Utilising secondary material from Tar Ponds as alternative fuel

Location: Broceni, Latvia

Partners: State Environmental Service, Inčukalns EKO

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Summary: SCHWENK Latvija was part of an important environmental initiative in Latvia from 2018 to 2022 – the **clean-up of the Inčukalns tar ponds**, a historically polluted area. About **50,000 tonnes of neutralised polluted soil** were utilised as alternative fuel in the Broceni cement plant during the project. The clean-up process involved extracting acid tar from the ponds and neutralising it onsite to render it safe for use as part of an alternative fuel mix. After neutralisation, the soil was transported to the Broceni plant and stored safely. The project, which was completed in 2022, demonstrates the successful **transformation of an environmental challenge into an innovative solution for alternative fuel sources**.



For nearly 30 years, one of the biggest environmental challenges in Latvia was the clean-up of historically polluted area - sulphuric acid gudron ponds in Incukalna region – a place close to densely populated areas and near one of the main rivers – Gauja. Ponds were formed in 1950s to 1980s, when during Soviet occupation hazardous waste from pharmacy and perfumery industries were poured into the soil with no proper insulation and technical preparation. For over 50 years acid tar was soaking into the soil in expanding geographical area, posing threat to all living creatures. There was also a risk that along with underground water streams acid tar could flow into the river Gauja. Incentives to solve the situation were implemented already at the beginning of this century, but on small scale, meeting various technical challenges and not solving the problem once and for all.

After extensive analysis and research, it was clear that only cement industry with its specific production process and extremely high kiln temperatures can help to solve the problem of utilising this dangerous material. And it was quite lucky for Latvia, that one of the most advanced cement plants in Europe is located in Broceni and the plant was eager to become a partner of this nationally –and historically- significant project.

Clean-up of two existing ponds were organised in two parts in close partnership with state authorities and waste managers. In first project phase from 2012 till 2015 Broceni cement plant utilised 32.005 tonnes of NPS, in second and final phase from 2018 to 2022 – 48.796 tonnes of NPS. Extensive works were carried on site to prevent further pollution and properly restore the area. Acid tar was extracted from ponds and neutralised on site. After neutralisation, it turned into a safe material to use as part of an alternative fuel mix, with no threat to human health or nature. Neutralised polluted soil was transported to Broceni cement plant and safely stored in a closed warehouse building.

In 2022, SCHWENK finished the utilisation of the material, thus successfully finalising this nationally significant environmental project.
