

EDITOR'S PAGE

DEAR READERS!

To take advantage of the opportunity to introduce this issue of *Oil Shale* I decided to draw your attention to a new development in oil shale retorting. The method of retorting of oil shale fines (particle size less than 25 mm) in a process with solid heat carrier has been industrially used in Estonia at Oil Factory of Narva Power Plants Inc. for a long time. The method of destructive distillation based on the concept of high-speed heat transfer from high-temperature solid heat carrier (for example the ash of the processed shale) to oil shale fines being decomposed. The existing commercial-scale plant in Narva is installed with two 3,000 t-per-day capacity retorts.



The above-mentioned solid heat carrier (SHC) method is also used for utilization of rubber wastes, especially of worn-out tires, which has become one of the most serious ecological problems all over the world.

In 1994 a special programme of experiments was devised by the Estonian Power Plant and the Institute of Chemistry and approved by the Estonian Ministry of Environment. The programme included laboratory experiments as well as large-scale experiments at the industrial plant to work out the technology to process rubber wastes together with oil shale by using the SHC method. The programme was realized successfully, and for the present time thermal processing of rubber wastes together with fine-grained oil shale is applied industrially.

Thermal processing of organic matter, especially of fossil fuels, is always associated with environmental problems.

In September 1996, under the guidance of the Executive Secretary of the Basel Convention, a case study on the recovery of hazardous wastes at oil shale thermal processing in Narva was carried out. The conclusion drawn from the study was that processing of rubber oil shale mixture using SHC method has no significant impact on the emissions, waste characteristics, quality of pyrolysis products (benzo(a)pyrene content) and other environmental parameters of the processing.

We suppose that the use of SHC method for processing oil shale with rubber wastes for producing fuel oil is a unique case in the world.

It is in Estonia's interest to continue scientific investigations and large-scale industrial experiments for future developments of SHC method.

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