

Prompt action

taken to resolve infractions

In the vast majority of cases, the requirements of the environmental permits regulating operations at Stora Enso's units were fully met. As well as resolving the formal infractions listed below, Stora Enso units have registered complaints, and initiated appropriate measures to resolve them. Complaints received during 2004 most commonly concerned noise and odour problems.

Air emissions

The particulate emissions permit limit of the recovery boiler at **Oulu Mill** was exceeded during June and August 2004. The environmental authorities were duly informed. The electrostatic precipitators of the boiler were repaired and cleaned, and their efficiency has been improved.

The permit limits for hydrogen chloride (HCl) and dust concentrations in flue gases at the Ecogas plant at **Varkaus Mill** were exceeded between January and May 2004. The problems were caused by PVC plastic impurities in the fuel, which consists of polyethene and aluminium recovered from used liquid cartons. On the basis of an environmental risk assessment the authorities set higher permit limits at the end of May, which have subsequently not been exceeded.

The time limit for the concentrations of malodorous sulphur compounds at **Varkaus Mill** was exceeded during three months in 2004, due to shutdowns at the pulp mill. The authorities were informed immediately and have agreed that corrective measures are not required, since the problems are caused by diluted malodorous gases released during shutdowns.

Effluents

Due to increased loads of suspended solids and organic compounds in the purification plant at **Anjalankoski Mill**, monthly permit limits were exceeded for COD, BOD, nitrogen and phosphorus between February and May 2004. The annual limits were also exceeded. The local authorities have been kept continuously informed. Corrective measures have been taken, including repairs to filtering devices, the establishment of an improved effluent monitoring system and the optimisation of activated sludge purification. Investments to increase the plant's purification capacity will be made in 2005.

Process water going to external treatment from the **Arzamas** and **Balabanovo** converting mills for packaging materials

has exceeded the limits agreed with the owner of the treatment plant for metals (Mn, Al, Zn, Cr, Fe). New internal water treatment systems are being installed by the mills and should become operational in early 2005. The authorities have been kept informed of developments.

Due to pump failures at **Corbehem Mill**, about 200 m³ of untreated waste water leaked into the nearby River Scarpe in March 2004. The authorities were informed and all pumps were upgraded with the latest technology. A fine of EUR 2 000 was paid to the local fishing association.

The BOD permit limit was exceeded at **Kemijärvi Pulp Mill** between January and May 2004 due to heavy organic loads sent to the waste water treatment plant. During the period autumn 2003 to spring 2004, several corrective measures were completed. All infractions have been fully discussed with the authorities, who have approved the corrective measures as being sufficient.

Due to a malfunctioning valve, about 1.5 m³ of kaolin suspension was spilled at **Maxau Mill**. A part of the suspension entered storm water sewers and overflowed into the River Rhine. Kaolin is not considered to be hazardous. The authorities were informed immediately of the spillage, and did not take any punitive action.

Port Hawkesbury Mill exceeded its daily total suspended solids limit on 9 January 2004, following a surge in effluent flow from the mill. Environment Canada was notified immediately on the discovery of the problem, and mill operations were stopped to allow the clarifiers to settle.

Limits for phosphorus, nitrogen and chemical oxygen demand were exceeded at **Oulu Mill** in February 2004, due to an abnormal load from the fibre line. The environmental authorities were duly informed, and the washing process has been improved.

Due to malfunctioning of **Skutskär Pulp Mill's** waste water treatment plant, guiding values for suspended solids and chemical oxygen demand were exceeded during February and November. The authorities were informed, and the environmental impact was not considered to be significant. Corrective measures have included increased dosages of nutrients and improved handling of surplus sludge in the mill's evaporation plant.

The COD permit limit for effluents at **Varkaus Mill** was slightly exceeded in

January 2004, when extremely cold temperatures caused start-up problems at the pulp mill, and hampered the use of chemical dispensing equipment in the waste water treatment plant. Discussions with the authorities took place immediately. The chemical dispensing system has been improved to ensure it will function properly during the next winter season.

The **Water Quality Center** in Wisconsin Rapids exceeded the daily maximum BOD limit for its final effluent on 22 September 2004, and notified the Wisconsin Department of Natural Resources (WDNR) immediately upon discovery. The WDNR issued a Notice of Non-compliance. A number of corrective actions have been implemented to prevent recurrence.

Forestry and wood procurement

Wood Supply Baltic has been involved in two cases concerning the intensity of thinning in 2004. In forests around Rägavere and Pärnu in Estonia, the authorities have noted an increased level of thinning intensity. All relevant stakeholders have been informed about the corrective actions that should be taken by changing procedures and training the personnel involved. Logging activities will be included in the environmental management system to be implemented at Wood Supply Baltic during 2005.

During a manual harvesting operation on **Port Hawkesbury Mill's** licensed Crown land, a small area of forest (0.04 ha) in a neighbouring Provincial Wilderness Area was inadvertently cut in April 2004. The Wilderness Area boundary was not marked on the ground, and appeared on Port Hawkesbury's maps in a different location than on the provincial maps. As soon as the error was noted, the operation was shut down and boundaries were re-established based on a new survey. The province appreciated Port Hawkesbury's prompt action, and no legal charges were issued. Port Hawkesbury has since rechecked the wilderness area boundaries on its maps with the provincial authorities. ●