

Update on ACAP Partnership with the Chlor-alkali Production Industry in the Russian Federation (RF) to Reduce the Consumption and Releases of Mercury

- The waste-water treatment facility at Volgograd “Caustic” is expected to be fully operational by the end of September 2009. This treatment system will allow the extracting of 850-900 kg of mercury from waste-water. Extracted mercury will not be returned to the surplus mercury market, but rather will be reused in the facility’s production cycle. (The waste-water sent for treatment contains 30mg of mercury per liter. After treatment, the amount of mercury is reduced to 0.0002-0.0004 mg per liter.)
- The Mercury Monitoring System, MMS-16, which is in transit from a German firm to the Volgograd “Caustic” facility, and which measures discharges of mercury into the air at multiple sampling points, is still undergoing the clearance process at Russian customs. Equipment has up to 16 sampling points and will allow quick identification of mercury leaks and spillages. Use of this equipment will allow the facility to reduce mercury losses by up to 200 kg per year.
- The Volgograd “Caustic” facility completed the assembly of and is now test-operating two state-of-the-art electrolyzers. These new electrolyzers require minimum maintenance. Since January 2009, the facility has already achieved a reduction of 2.6.kg of mercury releases by using this new technology. The scheduled upgrade of the entire facility will allow reduction of mercury releases by 300 kg per year.
- In July 2009, the Kirovo-Chepetsky Joint Stock Company “Zavod Polimerov” began the reconstruction and modernization of its brine conditioning unit. This unit is the major source of mercury in solid waste. This work is planned to be completed by the end of 2010. When completed, the facility will achieve annual reductions of 10 tons of mercury.
- Sterlitamak “Caustic” continues implementing their plan to reduce releases of mercury. The ongoing activities include the stabilization of electrical current in the shop, the reduction of those maintenance activities which require the opening of electrolyzers, the use of temporary covers of electrolyzers which are under maintenance, and the modernization of electrolyzers. Since 2005, the Sterlitamac “Caustic” facility achieved total reductions of mercury releases into the air by 212 kg and into solid waste by 1.4 metric tons.
- Management of mercury-containing waste: RusChlor, together with experts from the Russian Academy of Science, began work on the review and analysis of current practices, legislation, and compliance on the storage, transportation, and disposal of mercury-containing waste at the PVC production facility “Plastcard.” Based on these analyses, they will develop recommendations to improve federal laws covering the management of mercury-containing waste. This work will contribute to the development of the Integrated Hazardous Waste Management System.