

Abstract

The wall of the red mud waste disposal facility at Ajka, Hungary ruptured on October 4, 2010. Nearly about 1 million m³ of red mud sludge got out of the disposal facility and the neighbouring environment was heavily contaminated. In the emergency situation the top priority was put on the rescue of human lives and to provide first aid to the injured people. Many people end their lives will wear the scars caused by the caustic red mud sludge. The polluted surface waters (Stream Torna, River Marcal and River Rába) get into the River Danube therefore immediate measures had to be implemented to avoid the distribution of the pollution and to limit the spreading of the pollutants. In October 2010 the Accredited Water Quality Telemetry System devised by the Institute of Environmental Engineering, University of Pannonia and the ÖKORET Spin-off company was installed in the direct vicinity of Stream Torna and it measured and controlled the water quality at Devecser. The commencement of the dry red mud disposal treatment technology was realized by MAL Co. Ltd. on April 3, 2011 as a consequence of actions following the catastrophe. In this way the water content of the deposited red mud sludge generated was decreased from 80% to 30%. The paper deals with the results of the surface water monitoring and the emergency measures taken.

Key words: environmental impact assessment, red mud disaster, Stream Torna, water monitoring