

**Kowalski, D. Water Quality Management in a Water Distribution System. *Ochrona Srodowiska* 2009, Vol. 31, No. 3, pp. 37–40.**

**Summary:** In this paper a water company is considered to be a production plant, where water is the main product, and the problem of supplying the user with water of the quality desired constitutes an important part of the production process. The processes of water intake, treatment and supply are made subject to planning, control, analysis and corrective actions. In most instances, corrective actions are taken at the input of the water-pipe network. Water quality correction in the water-pipe network generally includes pipe cleansing and flushing. In consequence, when the water fails to meet the required quality parameters, or when there is a need to flush the pipes, a major part of the water volume stored in the pipeline will be lost. In the paper two methods have been proposed for correcting water quality in the water distribution system, which enable the potential water loss to be reduced. One of these makes use of the storage tanks; the other one uses the network's cleansing and flushing stations. The applicability of the methods to the process of water quality management was tested by computer simulations, choosing two municipal water distribution systems as cases in point. The results suggest that the two methods will not only enable a correction of water quality in the distribution network, but also help reduce the implications of overdesign.

**Keywords:** Tap water, water quality, quality management, water-pipe network, corrective actions.