

The future development of chemical monitoring of priority substances in the context of the Water Framework Directive

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Abstract Article 16 of the EU Water Framework Directive (WFD) is the legal basis for the identification and review of the European priority substances that should be reduced or eliminated from all emissions, discharges, releases and losses in surface water bodies. Directive 2008/105/EC has defined environmental quality standards (EQS) for 33 priority substances and eight additional pollutants. In 2012, the European Commission published a proposal Directive (COM (2011) 876) with a revised list of priority substances and the derivation of EQS in the water column and biota: 15 new substances were selected through a procedure of prioritization based on a risk assessment methodology with the use of monitoring and modelling data collected over a period of four years. In the list of the new substances, there are several pesticides widely used across Europe, as well as biocides, pharmaceuticals, flame retardants, industrial chemicals and also POP (persistent organic pollutants) such as dioxins and heptachlor. The control of the existing and future priority substances requires substantial effort from all the Member States with respect to the monitoring strategies and, in particular, for the selection of analytical methods that must comply with the legal obligations imposed by Directive 2009/90/EC. For this reason, and in the context of the Working Group E on chemical aspects of the WFD, an expert group, CMEP (Chemical Monitoring and Emerging Pollutants), chaired by Italy and the European Commission (DG JRC) has been established with the aim of supporting all the Member States in the implementation of chemical monitoring for European surface water bodies.

Key words priority substances; chemical monitoring; Water Framework Directive; environmental quality standard