

The Water Framework Directive and setting environmental quality standards for priority substances in sediments

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Introduction of the Activity and Legislative Background

Article 16 of the Water Framework Directive 2000/60/EC (WFD) sets out a strategy for dealing with chemical pollution of water. As a first step of this strategy, a list of priority substances was adopted (Decision 2455/2001/EC) identifying 33 substances of priority concern at Community level. This proposal aims to ensure a high level of protection against risks to or via the aquatic environment stemming from these 33 priority substances and certain other pollutants by setting environmental quality standards (EQS) http://ec.europa.eu/environment/water/water-framework/priority_substances.htm. The necessary emission controls have been adopted in various Community acts over the past years.

The European Commission adopted a proposal for a new Directive to protect surface water from pollution on 17 July 2006 (COM(2006)397 final) [1]. The proposed Directive, which is required to support the Water Framework Directive, will set limits on concentrations in surface waters of 41 dangerous chemical substances (including 33 priority substances and 8 other pollutants) that pose a particular risk to animal and plant life in the aquatic environment and to human health. The proposal will contribute to the Commission's Better Regulation initiative by replacing five older directives, allowing their repeal. This proposal is part of the new strategy against chemical pollution of waters introduced by the Water Framework Directive. The proposal is accompanied by a Communication (COM(2006)398 final) which elaborates on this approach and an Impact Assessment which illustrates the choices that the Commission made. Furthermore, the proposal and accompanying Communication takes full account of the objectives and provisions of other Community legislation, in particular the chemicals policy including REACH [2] and the Pesticides Directive, the IPPC Directive and the Thematic Strategies, namely those on marine policy and sustainable use of pesticides. All of these, and other, Community acts provide the emission controls in the sense of Article 16 (6) and 16 (8) WFD.

Progress in the negotiations in Council and Parliament

On January 2008 the Council and Parliament adopted a common position [3] for a Directive on environmental quality standards in the field of water policy and amending Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and 2000/60/EC. Paragraph 13 writes that "...Member States should be able to establish EQS for sediment and/or biota at national level and apply those EQS instead of the EQS for water set out in this Directive. ...Moreover, as sediment and biota remain important matrices for the monitoring of certain substances by Member States, in order to assess long term impacts of anthropogenic activity and trends, Member States should take measures, subject to Article 4 of Directive 2000/60/EC, with the aim of ensuring that existing levels of contamination in biota and sediments will not significantly increase".

The negotiations are now going into Second Reading which is likely to take place in the first half of 2008.

Following the adoption of the Commission proposal for a Directive on priority substances and its consideration by the EP and EC, the Expert Advisory Forum was transformed into a Working Group, similar to the working arrangements for groundwater, ecological status, river basin management, and droughts/floods which have proven to be effective. This Working Group E on Priority Substances deals with preparatory work on the implementation of the priority substance mandates of the WFD (selection of substances via priority setting process, chemical monitoring, EQS methodology and setting, source screening and emission controls).

Development of Methodology

The work on WFD priority substances is now entering a new stage. The negotiations in Council and Parliament on the above-mentioned proposal have brought to light some items which require a continuous and long-term work programme based on the principles of risk assessment and consistent with the implementation of REACH [4]. These areas are, in particular:

- Development of refined methodologies for setting environmental quality standards in water [5], sediments and biota built on the risk assessment framework of the Technical Guidance Document (2003) [6];

- Development of methodologies for identifying "priority hazardous substances (PHS)", including computer-based models;

- Preparation of proposals for EQS and PHS for new priority substances for each review every four to six years;

- Development of risk-based priority setting tools, in particular using appropriate models such as EUSES and QSARs, for the identification of new, emerging priority substances.

In order to developing the more formal guidance on EQS (environmental quality standards) derivation, there have been created 5 experts sub-groups:

(1) General Issues (overarching issues that are not specific to a particular receptor or a medium)

(2) Metals (water, biota, sediments)

(3) Organics (water, biota)

(4) Organics (sediments)

(5) Approaches for dealing with the chemical mixture.

Nominations for each drafting group have been received and have started working already. The objectives for each sub-group and their work programmes have been drafted.

Results: A guidance document will be produced by early 2009 which would then undergo a peer review of the Scientific Committee and thereafter presented for approval in the WFD Committee.

Discussion: Two other papers will describe the developments of the environmental quality standards for organic priority substances in sediments [7] and will give the overview of the recommendations of the EG-EQS (Ispra) concerning environmental quality standards for metals in sediments [8].

References:

[1] COM(2006) 397 final 2006/0129 (COD)
Brussels, 17.7.2006

[2] REACH Regulation (EC) No 1907/2006 Of The European Parliament and of the Council of 18 December 2006.

[3] COM(2007) 871 final 2006/0129 (COD)
Brussels, 10.1.2008.

[4] REACH Implementation Project (RIP) 3.3 Phase 2 (2007). <http://ecb.jrc.it/REACH>

[5] Lepper, P. (2005). Fraunhofer-Institute Molecular Biology and Applied Ecology (Germany).

[6] TGD (2003). EUR report 20418.

[7] Whitehouse, P. *et al.* SedNet Managing Contaminated sediments, Oslo May 2008.

[8] Clausen, H. SedNet Managing Contaminated sediments, Oslo May 2008.