

March 2019

Fitness Check of the Water Framework Directive

Metals industry complementary response to the Public Consultation

Introduction

Europe's non-ferrous metals industry is a constructive supporter of the European Commission's work to evaluate the EU's water legislation, in particular the Water Framework Directive (WFD), the Environmental Quality Standards Directive (EQSD) and the Groundwater Directive (GWD). We provided inputs in October 2018 at the 1st stakeholder workshop, jointly with other industrial sectors, and we are now considering attentively the targeted consultation.

Eurometaux is highly committed to have metals' bioavailability and natural backgrounds correctly taken into consideration by regulators when deriving and implementing metals' EQSs. We are also ready to contribute to the related knowledge and capacity building.

This document complements our response to the public consultation¹ launched last year and is based on the metals industry experience in the implementation of the WFD and EQSD, also considering the European Commission's 5th Implementation Report, the EEA reports '*European waters - Assessment of status and pressures 2018*' and '*Chemicals in European waters - Knowledge developments*², as well as the Water Directors' input to the fitness check process, '*The Future of the WFD*'.

We continue to emphasise the non-ferrous metals industry's overall commitment to achieving a good ecological and chemical status of EU waters and to keep improving the assessment of risks posed by metals in waters through the most up-to-date scientific knowledge and methods.

We recommend that the Commission encourages the EU-level and Member State take-up, promotion and enforcement of the ongoing processes to improve consideration of our metals' natural background concentrations and bioavailability.

In particular, we believe the revised CIS Guidance nr.27 - when fully used to derive metals EQS - and the new Guidance on Implementing Metals EQSs - when finalised - will greatly assist regulators in correctly assessing the risks posed by metals, and therefore the status of EU waters.

The updated CIS Guidance nr. 27, and the new CIS Guidance on Implementing Metals EQS, should be widely used as this will greatly enhance the quality and consistency of metals assessment under the WFD.

¹ PUBLIC CONSULTATION Fitness Check of the Water Framework Directive and the Floods DirectivePublic (17 September 2018 - 12 March 2019)

² EEA Report No 7/2018 and EEA Report No 18/2018.



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Bioavailability and background for metals

The science on the effects of metals in waters has continuously improved in the last 20 years. Today, it is widely accepted that the effects of metals in waters depend on their bioavailability, which is determined by the water's physico-chemical properties (e.g. pH, hardness, and dissolved organic carbon content). Furthermore, metals are naturally present in all waters. Ecosystems adapt to the locally- and naturally-present background concentration of metals.

The EQSD in 2008 and PSD³ in 2013 have acknowledged this by allowing Member States to take into account;

- Natural background concentrations for metals and their compounds (if they prevent compliance with the EQS value)
- Water quality parameters that affect the bioavailability of metals (the bioavailable concentrations being determined using appropriate bioavailability modelling).

However, the current compliance assessment of metals in water at local, Member States' and EU levels still does not always include bioavailability and background considerations, and where they do account for either or both, the consistency of the assessment might be improved. This is not surprising, given that the appropriate, updated guidance was not available during the last RBMP. The updated 2018 version of the CIS Guidance Document nr. 27 (ref. chapter 3.5 *Deriving EQSs for metals*) and the new CIS Guidance on the Implementation of bioavailability-based EQSs for metals will help EU Member States to correctly assess the risks metals pose to the aquatic environment.

We recommend that the EU and Member States promote and enforce **the adoption of the methods and procedures presented in these guidances** both for Priority Substances and for River Basin Specific Pollutants.

We consider that metals will not have received a correct EU-wide assessment until bioavailability and background concentrations are correctly considered. Our conclusion applies to both Priority Substances and to River Basin Specific Pollutants. At present, we warn that the European Commission and EEA's assessments should be taken with great caution.

When the science exists and an EQS-bioavailable can be derived, **the assessment of bioavailability should be made compulsory in the compliance check**. The importance of bioavailability was highlighted by the JRC (2016)⁴ using Zinc as a case study. Results showed that incorporating bioavailability significantly changed the outcome of the assessment. Unfortunately, several Member States still do not properly consider bioavailability nor local backgrounds when implementing the metals' EQSs, despite the availability of an easy, user-friendly tool specifically developed to assist Member States in this regard (Bio-MET, www.bio-met.net).

³ EQS Directive (2008), Annex I Part B, point 3, and PS Directive (2013) Article 9a – amendment of Annex I (Part B point 3.).

⁴ JRC Reports: Monitoring-based Exercise: Second Review of the Priority Substances List under the Water Framework Directive, 2016.



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Finally, it is misleading to report monitoring data in terms of the absolute number of exceedances for a substance. Metals are measured more easily and frequently than most other substances. The more a substance is measured, the more exceedances will be recorded. Results should be expressed as exceedance ratios, i.e. “number of exceedances/number of measurements”.

Our Recommendations:

- 1) Assessment of metal bioavailability and natural metal background should be made compulsory in compliance assessment according to the newly developed CIS guidance.
- 2) Results of compliance should be reported as exceedance ratios, i.e. nr of exceedances/ nr of measurements.

Priority Substances and River basin specific pollutants

Regarding the Water Director’s input 2.5 (Transferring river basin specific pollutant to chemical status), we agree that the identification of RBSPs needs to be more transparent, and that **methods for deriving EQSs for RBSPs should be harmonised** in line with the updated version 2018 of the CIS Guidance Document nr. 27. However, it should be noted that EQS values for RBSPs may still differ between Member States, e.g. due to locally different conditions at river basin scale (ref. revised chapter 3.5 Deriving EQSs for metals in Guidance nr. 27).

It is fundamental to clearly distinguish between Priority Substances which pose an EU-wide risk, and River Basin Specific Pollutants. We recommend that the EU-wide risk is assessed via reliable and complete methodologies, such as the Spatial Temporal Extent (STE) approach adopted by the JRC (2016)⁵ and review sub-group during the 2nd Review of PS exercise. This assessment looked holistically at thousands of chemicals with the aim to review the list of priority substances. Robust and objective criteria which went beyond “number of exceedances” were used to assess the spatial distribution, temporal frequency, and extent of the exceedances (STE criteria). This work allowed the JRC and the Sub-Group Review of CIS Working Group Chemicals to screen substances which are of EU-wide concern using harmonized criteria. The outcome of this robust exercise is clearly different from a simplistic assessment considering the “number of exceedances”.

We emphasise that in the context of River Basin Specific Pollutants, the EEA’s inclusion of the principle of “European-wide relevance” for metals does not equate to EU-wide risk. An EU-wide risk posed by chemical substances should be established based on robust criteria, such as the STE scores (JRC, 2016). Metals are naturally occurring and easily measured and will, as a result, always be detected in natural waters. **The concept of “European wide relevance” or “widespread concern” thus needs to be handled with caution.** As we have mentioned above, the number of exceedances should be considered relative to the number of measurements.

⁵ JRC Reports: Monitoring-based Exercise: Second Review of the Priority Substances List under the Water Framework Directive, 2016 and STE methodology for monitoring-based prioritisation of chemical substances in support to EU water policy, September 2015.



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Locally elevated levels of metals in water are often the result of **local geological conditions**. Such geological formations do indeed occur at various locations in Europe. Their relevance is however restricted to these specific locations.

Overall, **there should be a clear distinction between Priority Substances posing an EU-wide risk, and River Basin Specific Pollutants which may be of local relevance.**

Our Recommendations:

- 3) Regulators should apply robust criteria when considering “EU wide risk”. The recently developed STE methodology is appropriate in this regard.
- 4) Specific local conditions and local metal levels - reflecting local natural geology - should be recognised and considered in the EQS setting and compliance assessment according to the EU guidance.

Other topics

• **From water to biota EQSs**

We believe that the **derivation of water EQSs from the biota EQSs brings issues linked with the conversion (BMF) factors**. This conclusion results from our scientific investigations and is relevant with regard to monitoring of chemicals substances in water, sediment and biota.

As an example, for mercury from the EU biota EQS (20 µg total, whole fish, Hg/kg) the derived water EQS values are down to 0.07 ng Hg /L due to **non-realistic biomagnification factors** (up to e.g. BMF 1.000.000) **used**.

• **Cost and benefits of the implementation**

We have difficulties in answering the questions on efficiency, related to the costs of implementation linked to the most significant benefits. There is no complete quantification of costs available at Member State level, where in most cases only the direct administrative costs are considered. Thus, we believe that reported costs are typically underestimated.

We acknowledge the recommendations of the IEEP report (2018)⁶: “*The experience of testing the methodology in the eight RBDs showed that the approach to the choice of measures in the 2nd RBMPs and the application of disproportionate cost decisions have often failed to take account of basic information on costs and benefits*”.

In our view, the WFD has not yet properly integrated economic principles into the evaluations carried out to assess the cost-benefit analyses. The WFD requires Member States to take up measures that are not disproportionately costly in their programme of measures. Our experience has shown that measures are often implemented without due consideration

⁶ “Testing a methodology to assess the costs and benefits of the implementation of the EU water acquis in selected river basins”, Task A3 of the BLUE 2 project “Study on EU integrated policy assessment for the freshwater and marine environment, on the economic benefits of EU water policy and on the costs of its non- implementation”, 12th July 2018.



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of their economic feasibility (i.e. evidence from cost-benefit analyses is ignored). Such a signal is discouraging to investors in EU industry. Europe’s scientific and industrial community is working hard to create more sustainable technologies, but their implementation in the field strongly depends on long term legal certainties. We fully support a regime favouring investments while better managing resources.

Our Recommendations: Socio-economic impacts should be better taken into consideration and properly addressed when implementing the WFD and daughter directives.

ABOUT EUROMETAUX

Eurometaux is the decisive voice of non-ferrous metals producers and recyclers in Europe. With an annual turnover of €120bn, our members represent an essential industry for European society that businesses in almost every sector depend on. Together, we are leading Europe towards a more circular future through the endlessly recyclable potential of metals.

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