NORMAN
Network of reference laboratories and related organisations for monitoring and bio-monitoring of emerging environmental pollutants

Joint Programme of Activities 2013

TOPIC: PASSIVE SAMPLING

“Linking Environmental Quality Standards and Passive Sampling”
Expert group meeting
Passive sampling (PS) has long been considered a “promising” technique with a strong relation to biota exposure to hydrophobic compounds. Nevertheless, the technique is not yet applied in compliance monitoring because the Environmental Quality Standards (EQS) are not defined for the compartments sampled by this method.

The recent compromise proposal for an update of the Environmental Quality Standards Directive (2008/105/EC), which is now subject to reading in the European Parliament, sets EQS in biota for priority substances with bioaccumulation potential. Due to multiple factors affecting the pollutant levels found in the sampled matrix (fish), data from chemical monitoring in biota are expected to be very variable. This will complicate the evaluation of chemical status of water bodies and assessment of pollutant trends. Data variability caused by sampling can be significantly reduced by application of passive samplers, a promising alternative to biota monitoring for the purpose of compliance checking and trend assessment.

The NORMAN Association is therefore organising, as part of its 2013 Joint Programme of Activities, an expert group meeting to bring both eco-toxicology and passive sampling (PS) experts together to investigate how Environmental Quality Standards (EQS) values relate to results obtained from PS and vice versa. EQS values under the EU Water Framework Directive (WFD) commonly refer to concentrations measured in the water phase, but may also relate to partitioning between different environmental compartments. The latter may give a good basis to develop EQS values for results of passive sampling or transfer passive sampling results to a compartment that can be tested against EQS values. The expert group will explore the scientific basis for such conversions, with a focus on organic compounds with bioaccumulation potential for which compliance checking using biota and water is in principle equally valid.

The expert group meeting will be held on 3–4 July 2013 and will be hosted by RECETOX, Masaryk University in Brno, Czech Republic, www.recetox.muni.cz. The agenda and detailed programme of the meeting will be posted on the website www.eqsandps.passivesampling.net (link on the NORMAN network website). Participation in this meeting is by invitation only.

The invited group of about 30 experts consists of researchers in passive sampling and those who contributed to the EU guidance for deriving EQS, further experts with a detailed knowledge of rules that apply in the current legislation framework (2000/60/EC; 2008/105/EC, 2009/90/EC) and invited experts from overseas to present them with approaches that are applied outside Europe. Observers from the European Commission, EU Member states and industry are also invited.

The conclusions of the meeting will be disseminated in a position document which will clarify where passive sampling fits into the schemes that are currently applied for assessment of the chemical and ecological status of water bodies under WFD.

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