From Eric Fey 8-7-03

Meeting between the U.S. Environmental Protection Agency (EPA) and the Federal Water Quality Coalition and its Guests (FWQC) Regarding Mercury

Barnes & Thornburg Washington, D.C. Office
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EPA team led by Jim Pendergast.
FWQC team led by Fred Andes.

Statements recorded below are generally paraphrases.

EPA: We share your concerns about establishing water column values for mercury, and we recognize that site-specific BAFs can be costly. We are looking at going without BAFs in a regulatory context. But doing so is easier in a TMDL; what to do without a broader context of sources is more problematic. We're working on a process for when you don't want a BAF. We need to break down the scenarios that a permit writer might face. We're thinking the process would be similar to a simple TMDL.

FWQC: It could be a rigorous source analysis, followed by making a cut for minor sources as a screening-level analysis.

EPA: The source analysis coming first does make it simpler.

FWQC: Is EPA aware of any point sources that are not minor?

EPA: The New York Academy of Sciences study indicates that POTW discharges can be major sources.

FWQC: We believe that study's conclusions are flawed due to a pollution-prevention focus overestimating source contributions and inadequate low-level effluent data overestimating POTW pass-through. The result is the POTW contribution overestimated by more than an order of magnitude.

EPA: I (A. Kuzmack) came to the same conclusion.

FWQC: This situation highlights the need for guidance on source analysis.

EPA: States will find more mercury impairments as they look at fish tissue. Knowing what's in the fish is the first step. But we don't consider monitoring to be research. Even determining the questions for research is difficult.

FWQC: Don't hammer on point sources in the meantime. EPA's position has been that point sources "must do their share." But that isn't in the statute.

EPA: We recognize that when there's any cost involved, people want to see that it's science-based and that it's going somewhere. However, a lot of "but-what-about" questions get attached to potential solutions, and they can't be easily dismissed or confirmed.

FWQC: I think it's fair to have people do the science to answer some of these questions before we have to make major expenditures on control.

What can be done pre-TMDL?

EPA: Most of the mercury from POTWs starts out as dental amalgam particles.

FWQC: But what is the relative bioavailability of point source mercury?

EPA: We don't know. It's also not clear whether the mercury in soil get into the fish.

FWQC: What do you do if you believe that the criteria just cannot be attained?

EPA: We wrestle with the question of what is the appropriate level that can be attained. There is no unimpacted area for reference. We don't have the answers.

FWQC: Variances need to be considered further.

EPA: We're sponsoring studies on predatory wildlife species to understand toxico-kinetics, including demethylation, so that we can extrapolate to piscivorous species. We're also trying to extrapolate to population-level effects by looking at a loon population in Wisconsin. The BAF is the weakest link. (But be aware that the human health criterion could go lower too.)

FWQC: We asked for a BAF field manual during the GLI.

EPA: We didn't have answers for how many samples, when to sample, how to deal with migration, etc. They all depend upon the variability of the system.

FWQC: Why are we still talking about (as in New Jersey) the GLI approach for wildlife?

EPA: Declining revenues are the reason why we haven't been working on wildlife criteria since the GLI. Situations like New Jersey happen because USFWS has a different data standard and their priority is to protect the animals. USFWS will continue to ask whether the criteria are protective of wildlife.

We need more funding for wildlife research, and you need to communicate that to the decision-makers.

TMDLs have more flexibility than NPDES permitting. We're going to have to have more data than we have now to make a presumption that point sources are small mercury contributors.

FWQC: We're not getting as much deposition reduction out of the atmospheric emission reductions as we predicted. Much more mercury is being deposited from the global pool than from local sources. How do we deal with the greater contributions from the global pool?

EPA: Irreversible human impact can be taken into account in a Use Attainability Analysis. But when is the so-called "background" not really background but current conditions that may change? These are much bigger issues than we can deal with in the implementation guidance currently being drafted.

FWQC: There's no legal basis for requiring point source pollutant minimization programs (PMPs) in a TMDL when other actions are expected to meet the water quality standards.

EPA: That's a policy decision. Those folks aren't here. PMPs are undefined; they can be large or small. Without requiring some action, how do you legally defend not shutting down a point source? PMPs are a reasonable alternative. There have been NPDES requirements to develop BMP plans instead of issuing numeric stormwater limits.

FWQC: Those BMP requirements provide some comfort that more won't be required than what would've been required under a numeric limit. More work is needed on the criteria for what will be an acceptable mercury PMP. The PMP is driven by water quality standards while BMPs are driven by technology; with MEP in stormwater permitting, you shouldn't be driven all the way to the water quality standard. There is concern about ratcheting in PMPs. There should be a check to make sure the PMP is doing some good. We need some kind of a ceiling on what is required in a PMP. As you squeeze more out, you're no longer talking about low-hanging fruit. It's hard to trust that the Agency will, at some point, say that you don't need to do any more.

EPA: But how would you describe the difference between reasonable and unreasonable measures?

Conclusions

EPA and FWQC agree to work together on:

- Guidance on mercury source analysis;
- Guidance on mercury PMPs;
- A screening tool for differentiating between major and minor sources of mercury and guidance on how each should then be addressed.

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FWQC & EPA Re Hg