Evans, Diane

From: Michael Pfeil <michael.pfeil@tceq.texas.gov>
Sent: Thursday, October 31, 2013 2:57 PM
To: Evans, Diane
Subject: RE: WER guidance

Diane-

Ugh, I read that 1997 update and all it did was confuse me with all the unfamiliar terminology.

Here is what I am thinking – it makes sense to normalize the lab water so that it is representative of the receiving water, otherwise you could make the lab water artificially soft, making the WER value even higher.-

But one of the problems is the definition of site water – it can mean the upstream water, the actual downstream water (which I assume they mean to be after the effluent has discharged into the receiving water), or simulated downstream water (mixing the effluent and RW).

The problem with that is, what if the effluent is very high in hardness, as is Calabrian's? That is an aspect of the discharge that will be expressed in the RW itself just as much as any DOC in the effluent or stream will to ameliorate the toxicity of the copper.

So normalizing the lab water makes sense, but normalizing the simulated water does not. Or am I just confusing myself?

I mean, think about this – when hardness-dependent metal limits are calculated as in Tex Tox, the segment hardness is used in the equation unless site-specific hardness values had been collected and provided. So it makes sense to have the lab water's harness be normalized to the segment's, say, since the limit was calculated using that value, but why should Calabrian's 100% effluent be normalized?

Mike

From: Evans, Diane [mailto:evans.diane@epa.gov]
Sent: Thursday, October 31, 2013 12:02 PM
To: Michael Pfeil
Subject: RE: WER guidance

Hi Mike

Let me think on that…and ask Melinda, who is out of the office today. (I'm out tomorrow).

I think it may just affect the calculations at the end (like in the first version, which is normalized lab. v. SMAV), rather than the set up of the study (i.e., adjusting hardness of either the test solutions for or lab water or for site water, which produces other complications).

I'm making good progress reviewing it today (chemistry measurement and other info – DO, pH, temp….should be same both documents…)

Diane

From: Michael Pfeil [mailto:michael.pfeil@tceq.texas.gov]
Sent: Thursday, October 31, 2013 11:05 AM

To: Evans, Diane
Subject: RE: WER guidance

Thanks, Diane.

What about in cases like Calabrian where the discharge is to an intermittent stream and so there is no site water used in the WER study, where it is 100% effluent?

It doesn't seem like any normalization would be possible, since there is no site water to normalize to.

Mike

From: Evans, Diane [mailto:evans.diane@epa.gov]
Sent: Wednesday, October 30, 2013 4:18 PM
To: Michael Pfeil
Subject: WER guidance

Hi Mike,

Just talked to Melinda again, she said page 40 of the 1994 guidance has the clearest language on this (middle paragraph). Melinda also said that the 1997 guidance (first attachment) states it a little clearer, and the streamlined WER guidance is the clearest. And lab water should be normalized to site water, for each round (I may have said something different when we were on the phone).

Diane