

Please find my comments concerning my review of the TIE Guidance Document. I have organized my comments to address the overall charge questions taken from your email to me as well as included as an attachment to this email individual comments on various pages of the document.

As a general comment, I think that some work needs to be performed on the references. This will be a 2006 document that cites WET methods as 1993 rather than the most recent 2002 methods. Authors can and should bring these sections up to date. I have attempted to identify where these exist, but I know that it became a bigger task through out the document. Also, need to be consistent is citing of EPA documents, sometimes it is by the authors sometimes by EPA. Need to be consistent.

Overall questions:

1) Are the concepts and assumptions laid out in the document sufficiently developed and clearly articulated? If you identify deficiencies, please recommend ways to remedy them.

I believe that the concepts and assumptions are well laid out in this document. My only concern is that page 8 the use of Reference toxicants are misapplied and for Phase I testing one most likely does not even know the toxicant (even though you might suspect it). At best this is a Phase II or most likely a Phase III discussion, not a Phase I discussion. Recommend that the discussion says to use Reference Toxicant not changing them to meet the suspected toxicant.

2) Are the scientific bases for the manipulations conceptually sound/valid?

In my review, I believe that they are.

3) Are the methods and logic clearly explained and scientifically justified? Please indicate any modifications that would improve upon the methodology.

I believe that the methods are well presented and well thought out. Since this is guidance and not a protocol, I believe the document does an excellent job.

Sections 1-5: Introduction; Health and Safety; Quality Assurance; Equipment, Supplies and Facilities; Statistical Methods

Do these series of brief sections provide an acceptable opening to the document and provide the reader with sufficient preliminary information for understanding the material that follows? What specific additions or deletions to this section would you suggest?

I believe that the discussion is adequate.

Section 6: Designing the TIE approach

Does this section describe the differences between interstitial and whole sediment TIEs and contain logic for which approach to use, and how the approaches can be combined to help the researcher identify the cause of toxicity?

I believe that the discussion of interstitial and whole sediment TIEs are well thought out. No suggestions to this section.

Is this section internally consistent with the other sections?

I think that it is consistent with the other sections sufficiently to provide the readership easy use and understanding.

Section 7: Phase I Overview and Methods: Whole Sediments

Does this section clearly explain the Phase I methods we have developed for whole sediments?

I believe that it is adequate.

Is this section internally consistent with the other sections?

Yes I do.

Are there other methods that should be referenced in this section?

Recommend citing the Norberg-King, Ausley, Burton, Goodfellow, Miller, and Waller. 2005. Toxicity Reduction and Toxicity Identification Evaluations for Effluents for Effluents, Ambient Waters, and Other Aqueous Media. SETAC Press, Pensacola, FL p 454.

This document has numerous case studies and adaptations of methods that might be of use to the read in performance of sediment TIEs.

Section 8: Phase I Overview Methods Interstitial Waters

Does this section clearly explain the Phase I methods we have developed for interstitial waters?

I believe that it does.

Is this section internally consistent with the other sections?

I believe that it is consistent with the other sections to provide the readership sufficient information that is easy to find and utilize.

Are there other methods that should be referenced in this section?

Recommend citing the Norberg-King, Ausley, Burton, Goodfellow, Miller, and Waller. 2005. Toxicity Reduction and Toxicity Identification Evaluations for Effluents for Effluents, Ambient Waters, and Other Aqueous Media. SETAC Press, Pensacola, FL p 454.

This document has numerous case studies and adaptations of methods that might be of use to the read in performance of Interstitial waters TIEs.

Section 9: Phase II Sediment TIE Methods

Does this section clearly explain the Phase II methods we have developed for whole sediments and interstitial waters?

I believe that it does.

Does the section explain how procedures performed in the different manipulations can be supportive of the identification of the toxicant?

I believe that it does present supportive information for TIEs.

Is this section internally consistent with the other sections?

In my opinion it is consistent.

Are there other methods that should be referenced in this section?

See earlier comment for Norberg-King et al 2005.

Section 10: Phase III Sediment TIE Methods

Does this section clearly explain the Phase III methods we have developed for whole sediments and interstitial waters?

In my opinion it does.

Does the section explain how procedures performed in the different manipulations can be supportive of the final identification of the toxicant?

In my opinion it does.

Is this section internally consistent with the other sections?

I believe that it is consistent.

Are there other methods that should be referenced in this section?

See earlier comment for Norberg-king et al 2005.

If you have any questions concerning my review or require additional information, please feel free to call me at my contact information below. I believe that this is an excellent document and will be an excellent reference to the scientific community.