

November 3, 2005

MEMORANDUM

SUBJECT: Draft Metals Assessment Framework Panel Review Letter

FROM: William P. Wood, Ph.D. */Signed/*
Executive Director
Risk Assessment Forum

TO: Thomas Armitage
DFO - Metals Assessment Framework Review
Science Advisory Board

- We appreciate the work and feedback of the SAB panel on the metals framework, and think this draft is an improvement from the March draft report. We continue to have a few comments.

Overarching Comment - Continued Lack of Prioritizing Recommendations

- While we appreciate the panel taking our suggestion from the April teleconference to delineate between short and long term recommendations, the vast majority of the recommendations fall into the short term category, with no explanation of relative priority. We had hoped that the panel would elucidate their priority for the multitudes of recommendations, as we suggested earlier this spring. The same can be said of the over-arching comments in the Executive Summary, where some elucidation of priority would be helpful.

Comment 1 - Framework Purpose

- In commenting that a major weakness of the framework is the lack of a consistent identify (i.e., concerns that framework oscillates between basic principles for metals risk assessment and a detailed methods manual), the SAB notes in several places (e.g., pages ix, 6, 12, 13) that there is a “sense of contradiction” associated with this dual purpose. While the Agency appreciates the recommendation that improvements to the organization and clarification of the purpose are warranted, it is unclear what is inherently “contradictory” about this particular condition. It will be important to understand what is contradictory so that we may better address the comment.

Comment 2 - Human Health Recommendations

- We appreciate many of the comments from the SAB concerning the human health discussions. For example, helpful feedback was provided concerning ambient background concentrations of metals, essentiality, and mixtures. The SAB notes also that the human health discussion is incomplete, lacks important details, and contains

inaccuracies that need to be addressed in the final framework. So that we may better address the reviewers' comments, we request that the SAB report clarify the specific topics or issues that are absent or incomplete, and likewise, identify the specific statements or discussions that are inaccurate. As it stands, it is difficult to identify these items in the current draft report.

Comment 3 - BCF/BAF Recommendations

- The next comment/request is in two parts and relates to the BCF/BAF recommendations described in the Executive Summary and in the body of the report (pages xiii and 69-71). The SAB recommends in the Executive Summary that EPA revise the framework to include a discussion of what could replace BCF/BAF ratios as a measure of bioaccumulative potential, and also describe where BCF/BAF approaches are useful. Later in the document, (pages 69-71), the SAB indicates that a “clearer discussion is needed of when to use BCFs, their deficiencies, and when they should not be used,” and that the justification for why to use them needs to be “more explicit and coherent”. They also indicate the availability of alternatives to the BCF/BAF approach that are much more flexible and less variable (e.g., biodynamic models), and that a valuable, long term approach to understanding metals bioaccumulation would be to incorporate a “bioenergetics approach” into the framework.
 - We request that the panel clarify and provide a fuller discussion of the first short term recommendation concerning the use of BCF/BAF values on page 70. Specifically, we request the SAB provide an explanation of what language or ideas specifically need to be inserted or amended in the justification concerning why or why not to use BCFs/BAFs to make it “more explicit and coherent”.
 - Second, we request a fuller discussion concerning the recommendation in the Executive Summary and on page 69 that alternative methods to the BCF/BAF approach are available for hazard ranking and national scale assessments. We request that the SAB identify some of the specific approaches that are “more flexible and less variable”, as opposed to the passing reference to the literature. This will be particularly important for the purpose of hazard ranking. It will also be important for the SAB to provide its opinion on the state of the science of any models and approaches it recommends, and the extent to which they are applicable now or require further validation and study.

Again, we appreciate the effort of the peer review panel, and look forward to a final document that considers our comments so that we may effectively and efficiently respond to the recommendations and revise the framework accordingly. Dr. Anne Fairbrother and Dr. Randy Wentsel will be attending the teleconference on Nov. 7, 2005 and will be available to clarify any of the aforementioned comments.