SBA Office of Advocacy - June 29, 2016 – Comments on TMB – Step 6B Version

Response to Public Comments:

EPA surprisingly failed to respond to major public comments that were included in Step 5. EPA explains in its IRIS slides that Step 5 includes comments made in the Step 5 process (comments made to the CAAC and the Chartered SAB on the peer-reviewed draft assessment). It states:

The draft assessment is revised to reflect the peer review comments, public comments, and newly published studies that are critical to the conclusions of the assessment. The disposition of peer review comments and public comments becomes part of the public record.
https://www.epa.gov/sites/production/files/2014-03/documents/iris_process_flow_chart.pdf

EPA, instead, provides only responses to initial public comments on the external review draft (ERD). The new enhanced IRIS procedures do not suggest that later public comments can be ignored by EPA. Please provide a response to the major public comments not yet addressed.

The NRC recommended a major increase in clarity and transparency, and the response to public comments was a major part of the plan designed by EPA to address those recommendations. Among the major comments that should be addressed are : (1) the assessment needs to take into account the September 2014 final rule published by the Office of pesticide Programs (OPP) determining that complex C9 aromatics pose no appreciable risks to the general population, and (2) the assessment needs to address the inconsistency in the derived RfD values between NCEA and OPP.

Preamble Comments Regarding Public and Interagency Comment Procedures:

Current Draft Final Preamble Page xxxvii

Step 4: Public comment, followed by external peer review. The public reviews the draft assessment. IRIS program scientists address the public comments, then release a revised draft for independent external peer review. The peer reviewers consider whether the draft assessment assembled and evaluated the evidence according to EPA guidance and whether the evidence justifies the conclusions.

Step 5: Revise assessment. IRIS program scientists revise the assessment to address the comments from the peer review.

Step 6: Final agency review and interagency science discussion. The IRIS program discusses the revised assessment with EPA's program and regional offices and with other federal agencies and the Executive Office of the President.

Peer Review Draft Preamble (Deleted Text) Page xxi:

Step 4. Public review and comment, followed by external peer review. The EPA releases the draft assessment for public review and comment. A public meeting provides an opportunity to discuss the assessment prior to peer review. Then the EPA releases a draft for external peer review. The peer review meeting is open to the public and includes time for oral public comments. The peer reviewers assess whether the evidence has been assembled and evaluated according to guidelines and whether the conclusions are justified by the evidence. The peer review draft, written public comments, and peer review report become part of the public record.

Step 5. Revision of draft Toxicological Review and development of draft IRIS summary. The draft assessment is revised to reflect the peer review comments, public comments, and newly published studies that are critical to the conclusions of the assessment. The disposition of peer review comments and public comments becomes part of the public record.

Step 6. Final EPA review and interagency science discussion with other federal agencies and the Executive Offices of the President The draft assessment and summary are revised to address the EPA and interagency comments. The science discussion draft, written interagency comments, and EPA's response to major comments become part of the public record.

EPA should return to the previous version of the preamble. It more accurately captures the steps and is more specific regarding transparency – including the discussion of the interagency and public comments, and the response to major comments becoming part of the record. In the revised Step 6B version, EPA is no longer required to respond to the Step 5 public comments. Furthermore, EPA is no longer required to respond to major interagency comments in Step 6.

Lastly, EPA should specifically state that it will respond to the initial public comments on the ERD in Step 4. Now, it simply says in Step 4 that "IRIS program scientists address the public comments." Does this mean address these comments in the body of the new draft assessment text released for peer review, or a separate response to comments document? In the case of TMB, EPA did release the response to comments in Step 5. Why does it state that this occurs instead in Step 4 now?

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1. ***Preamble Page xxxvi (redline) – extrapolation of slope factors***

Here is the excerpt from the EPA Cancer Guidelines:

A nonlinear extrapolation method can be used for cases with sufficient data to ascertain the mode of action and to conclude that it is not linear at low doses but with not enough data to support a toxicodynamic model that may be either nonlinear or linear at low doses. **Nonlinear extrapolation having a significant biological support may be presented in addition to a linear**

approach when the available data and a weight of evidence evaluation support a nonlinear approach, but the data are not strong enough to ascertain the mode of action applying the Agency's mode of action framework. If the mode of action and other information can support chemical-specific modeling at low doses, it is preferable to default procedures.

The preamble makes use of only the first sentence which refers to the use of a reference value approach. However, it omits the second sentence which advises the use of alternative approaches under less certain circumstances, i.e. when there is "significant biological support". This issue comes up very frequently and is the subject of substantial criticism when the alternative model is omitted. This second sentence should be included in the preamble. EPA should not be modifying the current policy by omission.

2. *Preamble Page xxxv – Selection of Studies for Derivation of Toxicity Values*

The preamble states:

"Studies of low sensitivity tend to underestimate toxicity and may be less useful."

EPA provides no basis for the statement that these studies "may be less useful", and should be deleted.

See below the utility of such studies as stated in the Cancer Guidelines.

The 2005 Cancer Guidelines also provide:

"Studies of inadequate sensitivity where an adequately high dose has not been reached may be used to bound the dose range where carcinogenic effects might be expected." Page 2-19

Also, it is not clear to us that studies of low sensitivity tend to underestimate toxicity. Perhaps, EPA should delete this entire sentence.

3. *Preamble Page xxix - Integrating the Evidence of Causation*

The preamble states:

"Each synthesis considers aspects of an association that may suggest causation: consistency, exposure–response relationship, strength of association, temporal relationship, biological plausibility, coherence, and "natural experiments" in humans..'

In comparison to the 2005 Cancer Guidelines, EPA has omitted the concept of "specificity of the observed association" – please include in this comprehensive list. Better yet, the earlier text in

the peer reviewed version, which appears to have been copied from the Cancer Guidelines, may be preferable. The SAB objected to EPA making statements that were inconsistent with the EPA guidance, but not referencing or using the guidance.

4. Preamble – General Comment

The draft would be improved by adding back the citations to existing EPA guidance, and not relying solely on referring to the Handbook that doesn't yet exist, and is subject to change.