

Comments from the Council on Environmental Quality on the June 20012 Interagency Science Consultation draft Toxicological Review of Benzo[a]pyrene

We support release of this assessment, and supporting materials, for public comment and external peer review. The revised draft assessment for benzo[a]pyrene is well written and provides clear and transparent documentation to support the findings of the hazard identification and dose-response analyses. This is the first assessment using the new format to include a cancer assessment, and the benefits are notable. The document is easy to read and the underlying scientific decisions are generally transparent and defensible.

The most appropriate studies and endpoints appear to have been selected for derivation of the draft reference values, cancer slope factors and inhalation unit risk value. Likewise, the modeling efforts and use of scientific assumptions seem reasonable and appropriate. The peer review charge questions are adequately designed to solicit expert advice on these critical issues.

The following comments are offered as suggestions to improve or clarify minor aspects of the draft:

- Page XXIX, line 22, it is not clear why “oral” proceeds RfC, and line 24 states that Archibong et al., 2002 was a dietary study when in fact it appears to have been inhalation study.
- Table 1-2 – the asterisks appear to denote statistically significant, but this is not clearly stated as it is on the other tables.
- Throughout the document findings as statistically significant but significance level is typically not stated. There might be value in stating up front (perhaps in a footnote) that unless otherwise stated, statistically significant means that a $p < 0.05$ using the appropriate test, or that it was reported to be significant by the study’s authors.
- Table 1-11 is titled studies reviewed by IARC, but the text doesn’t seem to clear explain what this means. Perhaps the footnote that it was adapted from IARC would be sufficient.
- A footnote to Table 2-1 clearly states why BW^{3/4} scaling was not employed for deriving HEDs, i.e., doses were administered directly to early postnatal animals and it is not known whether allometric (i.e., body weight) scaling holds when extrapolating doses from neonatal animals to adult humans. It might helpful to all state this in the text of Section 2.1.2 and as a footnote to Table 2-2.
- Page 2-21, line 1, conducted is missing an “e.”
- Page 2-3, line 19, a clear statement of how the uncertain in system cancer risk associated with dermal exposure is recommended.
- Finally, does this assessment need to include a table identifying how the recommendations of the NAS Formaldehyde Report have been addressed?