

NASA thanks EPA for the opportunity to review and provide comment on the draft Dioxin Response to the NAS. Upon reading the document we understand that this draft Response to the NAS contains the IRIS draft risk assessment and our comments represent the interagency review step in the IRIS process. Our comments target general issues with the draft, as written.

- The draft is extremely long, complex, and very difficult to follow. This draft Dioxin risk assessment totals over 1900 pages (including over 1300 pages in Appendices) with significant discussion of assumptions and conclusions in the Appendices and not the main document. The length and organization of this draft undercut EPA's stated goal of transparency and clarity. This issue has been noted in several recent draft EPA risk assessments that the voluminous, densely written discussion of scientific studies actually prevents the reader, including members of the general public, from readily understanding EPA's choice and application of scientific information.
- Review of this draft was hampered by the size and complexity of the draft risk assessment and the limited time for technical interagency review. A total of 5 weeks of review time, including a delayed receipt of the charge questions to only 2 weeks before the end of the comment period, was not adequate for sound, defensible review. This late receipt of the draft Change Questions is inconsistent with the established IRIS interagency process, by which Agencies receive both the draft risk assessment and the Charge Questions at the initiation of the review comment period.
- The draft Charge Questions need to be expanded to answer several basic outstanding questions:
 - Did EPA address the NAS recommendations, not just the more limited set of questions targeted by EPA? What, if any, outstanding scientific issues remain?
 - Did EPA consistently apply its current policies and guidance in the cancer determination, Mode of Action, and linear response, and the choices of critical studies?
 - Did EPA err in the application of alternative approaches or new techniques to this controversial risk assessment? Was the justification of use of alternative approaches or new techniques consistent with current scientific thinking?

NASA thanks EPA for this opportunity to participate in the IRIS interagency review process.