

**From:** NCEH/ATSDR, Centers for Disease Control and Prevention

**Regarding:** Interagency review of EPA's Final Draft Toxicological Review and IRIS Summary for 1,1,2,2-tetrachloroethane

**Date:** August 18, 2010

CDC's National Center for Environmental Health (NCEH) and the Agency for Toxic Substances and Disease Registry (ATSDR) have reviewed the final draft Toxicological Review and IRIS Summary for 1,1,2,2-tetrachloroethane. We appreciate the opportunity to comment on these documents as well as the report from EPA's External Peer Review Meeting. Overall, we feel that the Toxicological Review is very thorough and concise. The document is well written, and the addition of the summary tables is a huge benefit for comprehension of the document. There is, however, quite a bit of repetition of study descriptions that could be condensed or omitted.

NTP (2004) is a comprehensive, well-conducted 14-week study in rats, and we agree it is the best study on which to base both the sub-chronic and chronic RfDs, particularly since the database on 1,1,2,2-tetrachloroethane is very limited. The uncertainty factors (UFs) are reasonable. Because of the use of BMD-modeling, it is appropriate that EPA does not use an UF to extrapolate from a LOAEL to a NOAEL.

It is very reasonable, given the lack of appropriate studies, that EPA did not calculate an RfC.

Other specific comments on the draft Toxicological Review include:

**PAGE 22, LINE 2**

The following statement should be revised for clarity: "Decreases in serum cholesterol levels were decreased in females at 80 mg/kg-day and at 320 mg/kg-day in males."

**PAGE 74, SECTION 4.8.1**

It is not clearly stated whether any animal or human data exists that allows EPA to determine if children are actually susceptible to 1,1,2,2-tetrachloroethane.

**PAGE 77, LINE 1**

The sentence currently reads, "Evidence of liver effects *were* also observed in mice by NTP (2004)". Please replace "were" with "was." The phrase "...of liver effects" is a prepositional phrase, and evidence is the subject. The sentence should be corrected to read, "Evidence of liver effects *was* also observed in mice by NTP (2004)"

Additionally, in table I.A.1.1 of the IRIS Summary, we believe the subchronic oral RfD is mislabeled as chronic.