Actions from Peer Review of the Draft Report on Carcinogens (RoC)

Monograph for Trichloroethylene (TCE)

August 12, 2014

The NTP Monograph Peer-Review Panel ("the Panel") was convened on August 12, 2014, to peer review the *Draft Report on Carcinogens Monograph on Trichloroethylene* (available at http://ntp.niehs.nih.gov/go/38854). A meeting report will be prepared and posted to the NTP website when completed. The Panel peer reviewed the draft monograph and provided its opinion on the NTP's draft conclusions for the level of evidence for carcinogenicity (kidney cancer, non-Hodgkin lymphoma [NHL], and liver cancer) from human cancer studies and the NTP's preliminary listing decisions for TCE in the RoC. The NTP will consider the Panel's peer-review comments in finalizing the monograph. When completed, the monograph will be published on the NTP website (*http://ntp.niehs.nih.gov/go/roc*).

The Panel agreed (8 yes, 0 no, 1 abstention) that the scientific information presented from human kidney cancer studies supports the NTP's preliminary level of evidence conclusion of *sufficient evidence of carcinogenicity*. This conclusion is based on evidence from human epidemiological studies, together with toxicokinetic, toxicological, and mechanistic studies showing a causal relationship between exposure to TCE and kidney cancer.

The Panel agreed unanimously (9 yes, 0 no, 0 abstentions) that the scientific information presented from NHL studies supports the NTP's preliminary level of evidence conclusion that there is *limited evidence of a causal association between exposure to TCE and NHL from studies in humans.*

The Panel agreed unanimously (9 yes, 0 no, 0 abstentions) that the scientific information presented from human liver cancer studies supports the NTP's preliminary level of evidence conclusion that there is *inadequate evidence of a causal relationship between exposure to TCE and liver cancer.* This conclusion is based on human epidemiological studies, together with toxicokinetic, toxicological, and mechanistic studies.

The Panel agreed unanimously (9 yes, 0 no, 0 abstentions) with the NTP's preliminary policy decision that TCE should be listed in the RoC as *known to be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans. This vote was based on epidemiological studies showing sufficient evidence of kidney cancer, together with supporting evidence from toxicokinetic, toxicological, and mechanistic studies. In addition, there is limited evidence of a causal association between exposure to TCE and NHL from studies in humans. Supporting evidence is provided by studies in experimental animals, which demonstrate that TCE causes tumors at several tissue sites.