Reviewer's report

Title: Update: cohort mortality study of workers highly exposed to polychlorinated biphenyls (PCBs) during the manufacture of electrical capacitors, 1940-1998

Version: 1 Date: 24 March 2006

Reviewer: Richard Clapp

Reviewer's report:

General
This is a well-written study of an important cohort of PCB-exposed workers that substantially extends the follow-up.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
none

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
none

Discretionary Revisions (which the author can choose to ignore)
The reference on myeloma (#30) is a little out of date. There are new studies, including one by t'Manness, et al. (2005) that would be more relevant for readers of this paper. Likewise, the studies of breast cancer and PCB congeners by Demers, et al. (2002) and Zhang, et al. (2004) and of non-Hodgkin's lymphoma by DeRoos, et al. (2005) would bring the cited literature up to date. I don't think 2-sided p-values are necessary in this article. There are published findings on this cohort and other PCB cohorts already in the literature reporting increased mortality from some of the same causes reported here (see Longnecker, et al. review in Annual Reviews of Public Health), so one-sided p-values would be appropriate. This is clearly discretionary, but even a Bayesian analysis with priors from the SMRs in the Longnecker, et al. meta-analysis might be preferable to 2-sided p-values.

What next?: Accept after discretionary revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.