Reviewer's report

Title: Mortality study of civilian employees exposed to contaminated drinking water at USMC Base Camp Lejeune: A retrospective cohort study

Version: 1 Date: 19 June 2014

Reviewer: Ann Aschengrau

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General Comments:
The manuscript describes the results of a well-conducted study that will add important knowledge about the mortality experience of individuals exposed to solvent-contaminated drinking water. In particular, the study objectives are appropriate and clearly stated, the study design and methods are suitable for the study objectives, the analysis is extremely thorough, and the presentation and interpretation of the results are excellent. The only issue that I have is that the conclusion should mention the need for continued follow-up of this and similarly exposed cohorts so that future mortality analyses can be based on a larger number of deaths. All of my remaining comments are relatively minor but should be addressed in a revision.

Minor Essential Revisions

Introduction
1. It would be useful to give the reader more information on the manner in which the underground storage tanks and waste disposal practices contaminated the drinking water.
2. More information should also be provided on the years and pattern of operation contaminated wells at Hadnot Point.

Methods
1. The exposure assessment section should provide any available information on the residences of the workers and whether or not their residential drinking water was contaminated.
2. The frequency distribution of the length of employment should be provided.
3. Similar to the analyses for residual confounding by cigarette smoking, it would be useful to present analyses evaluating possible residual confounding by alcohol consumption using alcohol-related deaths. These analyses would address criticisms regarding the interpretation of some of the findings.

Conclusion
1. A statement should be made that follow-up of this civilian cohort should continue and that updated mortality analyses should be conducted in five or so years. It is particularly important that this be done because many cohort
members are entering the age of increased cancer incidence (i.e. 60+ years).

Supplementary Figures
These figures should include confidence bands.

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests.