Reviewer’s report

Title: Environmental radon exposure and breast cancer risk in the Nurses' Health Study II

Version: 1 Date: 12 Jul 2017

Reviewer: Michelle Turner

Reviewer’s report:

Thank you for your detailed response to comments.

My main outstanding comment relates to the fact that analysis of associations of county-level radon and lung cancer risk have not yet been published in this cohort. Therefore it is difficult to place the current results on breast cancer in context. It is also somewhat unclear why the authors chose to examine associations with breast cancer mortality as a first analysis in this cohort and not lung cancer or other cancers.

I would recommend to present some information on findings with lung cancer in the manuscript (including HRs for the main analysis) and to state why associations with breast cancer were selected for the first analysis and publication in the cohort.

I think it would also be nice to present the correlation of radon with air pollution concentrations in the manuscript as well.

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