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Drinking Water Engineering and Science Discussions

Interactive comment on "Negative pressures in full-scale distribution system: field investigation, modelling, estimation of intrusion volumes and risk for public health" *by* M. C. Besner et al.

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This paper summarises the results to date of a 5 year investigation into the occurrence of negative pressures in a real distribution system, and the potential health risks of these events. This is an exceedingly difficult topic to investigate, and I think the authors have made impressive progress through detailed and rigorous scientific investigations.

While I believe the paper is ready for publication in its present form, I would like to make the following optional comments:

1. Page 135, Line 12: Leakage rates in excess of 10 % are very common in many countries, and thus this statement is somewhat superfluous. A stronger statement on

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the high rates of leakage in most distribution systems might be more appropriate.

2. Page 135, Line 27: Concrete is not a suitable material for pipes unless reinforced. Thus I assume the authors are referring to asbestos cement, fibre reinforced or prestressed concrete pipes. Be more specific.

3. Page 136, Line 22. Transient events have a very high frequency, and a measuring frequency of 1 to 4 Hz is likely to have missed many of the minimum pressure spikes occurring in the system. I would like the authors to address this point and the likely impact this factor might have had on the results of the study.

4. Page 142: Conclusions: I don't think the Conclusion section does justice to the many significant findings of the study. It would benefit the paper if it is expanded.

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