Interactive comment on “Abnormal quality detection and isolation in water distribution networks using simulation models” by F. Nejjari et al.

Anonymous Referee #1

Received and published: 18 September 2012

This paper envisages detection and localization method to find abnormal water quality levels in a distribution network. Abnormal water quality localization method is based on chlorine measurements and chlorine sensitivity analysis of the nodes of distribution network. However it is not clear, i) How to identify the location of chlorine injectors and chlorine sensors to be installed in the existing network? What should be the frequency of samples? Or, is it continuous monitoring? ii) What about mechanical and hydraulic reliability? Perhaps, it assumes the 100 % mechanical and hydraulic reliability. whereas, in certain situations it may not be true. iii) Is the residual chlorine sufficient condition for reliability analysis? iv) Will the methodology work for all types of distribution networks viz. Dead end system, grid iron system, Ring system and radial...
system?
The authors should incorporate the answers to these questions before accepting the same for publication.