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Drinking Water Engineering and Science Discussions

DWESD

3, C41-C42, 2010

Interactive Comment

Interactive comment on "Effects of ozonation and temperature on biodegradation of natural organic matter in biological granular activated carbon filters" by L. T. J. van der Aa et al.

Anonymous Referee #2

Received and published: 22 April 2010

This is an interesting manuscript for potable water treatment plants. The manuscript presents a pilot-scale system for biodegradation of natural organic matter (NOM) from potable water.

The experimental arrangement uses four granular activated carbon (GAC) filters for NOM adsorption and biodegradation. Three of these filters uses pre-oxidized with ozone water to enhance NOM biodegradation. These filters characterized as Biological GAC filters. The evidence for biological activity is oxygen consumption and carbon dioxide production. Obviously biological activity takes place and in the fourth filter and in any case the biological contribution on NOM removal is not well documented.

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Interactive Discussion

Discussion Paper



From experimental data presented it is not obvious the effect of ozone on NOM removal and the authors try a lot to reach some conclusions. Conclusions are not clear and cannot be supported efficiently.

A discussion part of the cost of the proposed method, especially for higher ozone concentrations, is missing.

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Interactive comment on Drink. Water Eng. Sci. Discuss., 3, 107, 2010.

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