

Interactive comment on "De-chlorination of drinking water by forced aeration" by Ghanim Hassan and Robert G. J. Edyvean

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All the comments were taken into consideration. Please see the attached file.

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De-chlorination of drinking water by forced aeration

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9 Key words: De-chlorination, Drinking water, Aeration.

11 Abstract 12 Shock chlorination is a well-known practice in swimming pools and domestic wells. One of the

13 limitations for using this technique in drinking water purification facilities is the difficulty of

14 quickly removing high chlorine concentrations in water distribution systems or production

15 facilities. Forced air bubbling is a possible technique for de-chlorination but there is lack of data

16 supporting such a process

17 A 20 cm diameter. 1-meter height column provided with air sparger was designed to collect the 18 desired data were used.

19 Shock de-chlorination by aeration is found to be a promising method that opens up the horizon to

20 drinking water industry to produce microorganism and disinfectant free drinking water.

21 1. Introduction

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- 22 Chlorination of drinking water has been used as a disinfection technique for more than a century
- 23 or so to produce water that is safe from waterborne diseases. This method is preferred due to low
- 24 cost, abundance, ease of use and less need of high technology equipment. On the other hand, during
- 25 the last forty years disinfectants by-products "DBPs" as an emerged branch of reality in the water 26 industry has developed first by discovering the presence of Chloroform (Rook, 1974) and
- 27 trihalomethanes "THMs" (Singer, 1994) in drinking water. To date some 700 or more DBPs have
- 28 been identified but understanding their effect on humans and the environment still needs more
- 29 work (Brown et al., 2011;Gonsior et al., 2014;Richardson and Postigo, 2015).

Fig. 1.