A STUDY ON THE RISK FACTORS OF THE PIPELINE DIRECT DRINKING WATER QUALITY IN A DISTRICT OF SHANGHAI

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Background and Aims: To explore the risk factors of pipeline direct drinking water quality.
Methods: The system of pipeline direct drinking water in a district of Shanghai was sampled and the water quality was detected in August and December of 2008. Multiple linear stepwise regression models were fitted to the measured values of specific indices and the evaluation value of comprehensive index with various potential risk factors as the independent variables.
Conclusions: The whole water quality of pipeline direct drinking water could be influenced significantly by use of time, opening rate and disinfection process. The comprehensive value decreased 0.044 corresponding to an increment of 1 year of use of time,0.202 corresponding to an increase of 1 household with access to this direct drinking system, and 0.229 corresponding to a switch of disinfection process form, a combination of micro-electrolysis and UV disinfection to single ozone. Except manganese and zinc, the measured values of various specific indicators were all significantly correlated with the corresponding risk factors.
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