Simulation of reverse osmosis seawater desalination system based on virtual reality technology

Jie Xiao\textsuperscript{a}, Fenshi Zeng\textsuperscript{a,*}, Dong Xie\textsuperscript{b}, Yan Zhang\textsuperscript{b}

\textsuperscript{a}Department of Information Science & Engineering, Hunan First Normal University, Changsha, China, emails: zengfenshi@163.com (F. Zeng), 58318152@qq.com (J. Xiao)
\textsuperscript{b}Information School, Hunan University of Humanities, Science and Technology, Loudi, China, emails: DongXie@huhst.edu.cn (D. Xie), 287566288@qq.com (Y. Zhang)

Received 23 February 2018; Accepted 11 July 2018

\textbf{A B S T R A C T}

In this paper, the seawater desalination system of Huangdao thermal power plant was taken as the research object, and a virtual reality system for seawater desalination was developed for personnel training. The system test results showed that the system can simulate the process of desalination and the process of equipment use. It can reproduce all kinds of states of seawater desalination system, and can be used to train the managerial staff of seawater desalination system.

\textit{Keywords:} Reverse osmosis seawater desalination system; Virtual reality; Analogue simulation

* Corresponding author.

\textit{Presented at the 3rd International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering, 15–16 February, Chennai, India, 2018.}