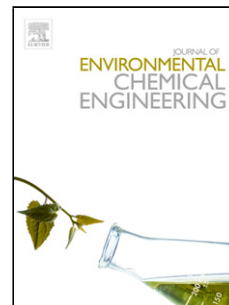


Accepted Manuscript

Title: Design and Performance of a Nanofiltration Plant for the Removal of Chromium Aimed at the Production of Safe Potable Water

Authors: Mattia Giagnorio, Sara Steffenino, Lorenza Meucci, Maria Chiara Zanetti, Alberto Tiraferri



PII: S2213-3437(18)30364-6
DOI: <https://doi.org/10.1016/j.jece.2018.06.055>
Reference: JECE 2480

To appear in:

Received date: 11-5-2018
Revised date: 20-6-2018
Accepted date: 23-6-2018

Please cite this article as: Giagnorio M, Steffenino S, Meucci L, Zanetti MC, Tiraferri A, Design and Performance of a Nanofiltration Plant for the Removal of Chromium Aimed at the Production of Safe Potable Water, *Journal of Environmental Chemical Engineering* (2018), <https://doi.org/10.1016/j.jece.2018.06.055>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Design and Performance of a Nanofiltration Plant for the Removal of Chromium Aimed at the Production of Safe Potable Water

Mattia Giagnorio^a, Sara Steffenino^b, Lorenza Meucci^b, Maria Chiara Zanetti^a,
Alberto Tiraferri^{a,c*}

^a*Department of Environment, Land and Infrastructure Engineering (DIATI), Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129 Turin, Italy*

^b*SMAT SpA, Società Metropolitana Acque Torino, Corso XI Febbraio 14, 10152 Turin, Italy*

^c*CleanWaterCenter@PoliTo, Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino, Italy*

* To whom correspondence should be addresses: Tel: +39-011-0907628; Fax: +39-011-0907699;
E-mail: alberto.tiraferri@polito.it

Highlights

Nanofiltration is effective to remove chromium and produce safe drinking water

Fouling-enhanced concentration polarization affects membrane performance

Feed water bypass may be needed in full-scale plant to produce drinking water

Environmental and economic costs are mostly due to the power supply to the NF system

Download English Version:

<https://daneshyari.com/en/article/6663899>

Download Persian Version:

<https://daneshyari.com/article/6663899>

[Daneshyari.com](https://daneshyari.com)