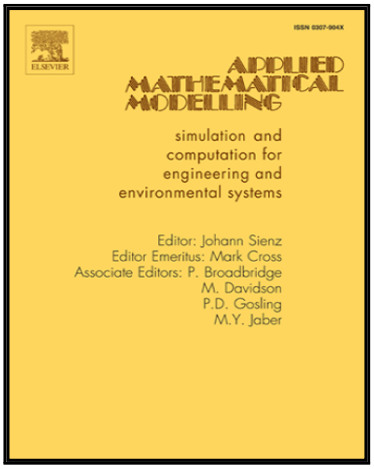
Accepted Manuscript



Modeling of a continuous sewage sludge paddle dryer by coupling Markov chains with penetration theory

M. Milhé , M. Sauceau , P. Arlabosse

PII: S0307-904X(16)30207-4
DOI: 10.1016/j.apm.2016.04.006
Reference: APM 11127

To appear in: *Applied Mathematical Modelling*

Received date: 4 June 2015
Revised date: 18 March 2016
Accepted date: 13 April 2016

Please cite this article as: M. Milhé , M. Sauceau , P. Arlabosse , Modeling of a continuous sewage sludge paddle dryer by coupling Markov chains with penetration theory, *Applied Mathematical Modelling* (2016), doi: 10.1016/j.apm.2016.04.006

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.

ACCEPTED MANUSCRIPT

Highlights

- Heat and mass transfer model for drying is coupled with a sludge flow model in a paddle dryer
- This new model leads to steady-state simulation of sludge water content and temperature profiles
- Simulations and experimental data are in fair agreement for different operating conditions
- Drying temperature and sludge residence time are the most influent parameters for final water content
- Stirring speed has much less influence than other operating parameters in the range studied

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/5471251

Download Persian Version:

https://daneshyari.com/article/5471251

Daneshyari.com