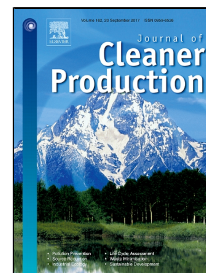


Accepted Manuscript

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PII: S0959-6526(17)31742-0
DOI: 10.1016/j.jclepro.2017.08.027
Reference: JCLP 10285
To appear in: *Journal of Cleaner Production*
Received Date: 12 November 2016
Revised Date: 04 August 2017
Accepted Date: 04 August 2017

Please cite this article as: Jian Zuo, Raufdeen Rameezdeen, Matthew Hagger, Zhihua Zhou, Zhikun Ding, Dust pollution control on construction sites: Awareness and self-responsibility of managers, *Journal of Cleaner Production* (2017), doi: 10.1016/j.jclepro.2017.08.027

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Dust pollution control on construction sites: Awareness and self-responsibility of managers

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Abstract

Dust pollution is a slow-onset process with damaging consequences. While past research mainly deals with the sources of dust, health implications and control measures, very little has been done to investigate the behaviour of those who are responsible for its management. The Norm Activation Model is employed in this study to examine the awareness of consequences and self-responsibility of managers with regard to dust pollution control on construction sites. Managers' own experiences with dust outbreaks, type and size of the company and its commitment to dust pollution control are found to positively moderate the awareness of consequences of managers. Perception of dust pollution as a trivial and isolated event which leads to discomfort was found to have negative moderating effects on the responsibility for control. The view that dust pollution control is less important compared to other activities is also found to have a negative moderating effect. Water suppression emerged as the main dust control method employed by majority of contractors. Managers' self-responsibility is severely affected by the use of water as the main method of suppression because wastage of water is deemed to be environmentally damaging. In order to influence the behaviour of managers, construction companies should demonstrate a genuine commitment to dust control; recognize dust pollution control in environmental management plans and project management plans; implement regular monitoring; reduce over-reliance on water suppression; and use innovative dust pollution control techniques. Managers should alter their perception of dust pollution as a 'condition' that need monitoring and control.

Keywords: Dust pollution; Control; Norm Activation Model; Health; Construction industry

INTRODUCTION

Dust can be generated by a number of activities undertaken on a construction site including but not limited to excavation; drilling; bulk material transportation; loading and unloading; open-

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