

Developing Emission Factors of Fugitive Particulate Matter Emissions for Construction Sites in the Middle East Area

Authors : Hala A. Hassan, Vasiliki K. Tsiouri, Konstantinos E. Konstantinos

Abstract : Fugitive particulate matter (PM) is a major source of airborne pollution in the Middle East countries. The meteorological conditions and topography of the area make it highly susceptible to wind-blown particles which raise many air quality concerns. Air quality tools such as field monitoring, emission factors, and dispersion modeling have been used in previous research studies to analyze the release and impacts of fugitive PM in the region. However, these tools have been originally developed based on experiments made for European and North American regions. In this work, an experimental campaign was conducted on April-May 2014 in a construction site in Doha city, Qatar. The ultimate goal is to evaluate the applicability of the existing emission factors for construction sites in dry and arid areas like the Middle East. This publication was made possible by a NPRP award [NPRP 7-649-2-241] from the Qatar National Research Fund (a member of The Qatar Foundation). The statements made herein are solely the responsibility of the authors.

Keywords : particulate matter, emissions, fugitive, construction, air pollution

Conference Title : ICAPC 2015 : International Conference on Air Pollution and Control

Conference Location : Paris, France

Conference Dates : February 23-24, 2015