

REVISED METHOD FOR RAPID ASSESSMENT OF EXPOSURE TO PARTICULATE EMISSIONS FROM SURFACE CONTAMINATION SITES

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There is a need to continue refining single media fate and transport models used in risk assessments and management. Periodic reviews are required to minimize subjective assumptions and to select and integrate new data and modeling strategies, as they become available. Finally, each single pathway model should also be simplified for ease of use in the field, particularly when it is for use as a rapid assessment tool for risk managers. The focus of this paper is one portion of the inhalable dust pathway for exposure to contamination. The current method of estimating the amount of contaminated dust raised into suspension by the wind, the inhalable particulate source term, is outdated. Further, the fate and transport methodology often used to translate this source term into a dose rate to individuals downwind does not take advantage of current computer power to account for many key variables. This paper describes an expanded capability and updated predictive modeling tool to serve as a pre- or post-processor in a multimedia model. It may also be used as a stand alone single media estimator when rapid assessments of exposure to wind blown, inhalable dust are needed.