Numerical simulation of pollution dispersion over real terrain. (English)

Summary: The paper presents a mathematical and numerical investigation of the atmospheric boundary layer (ABL) flow over coal depot. Two mathematical models have been mentioned based upon: 1) the RANS equations in the conservative form and 2) the Boussinesq approximation of RANS equations in the non-conservative form, both formulated for an incompressible flow with a simple algebraic turbulence closure and given stationary boundary conditions. Also pollution dispersion of passive pollutants has been considered.

MSC:
76M25 Other numerical methods (fluid mechanics) (MSC2010)
76T20 Suspensions
76T15 Dusty-gas two-phase flows

Full Text: DOI