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## Determining the City Development Based on the Modeling of the Pollutant Emission from Power Plant by Using AERMOD Software

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**Abstract:** The development of cities can be influenced by various factors, including air pollution. In this study, the focus is on the city of Mashhad, which has four large power plants operating. The emission of pollutants from these power plants can have a significant impact on the quality of life and health of the city's residents. Therefore, modeling and analyzing the emission pattern of pollutants can provide useful information for urban decision-makers and help in estimating the urban development model. The aim of this research is to determine the direction of city development based on the modeling of pollutant emissions (NOX, CO, and PM10) from power plants in Mashhad. By using the AERMOD software, the release of these pollutants will be modeled and analyzed.

Keywords: emission of air pollution, thermal power plant, urban development, AERMOD

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