

EMISSIONS INVENTORIES TO THE ATMOSPHERE OF POINT AND MOBILE SOURCES WITH POROSITIES OF MODELING

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The emissions inventories are a useful tool for the environmental authorities, since on these they base mainly their policies and programs for improvement of the quality of the air; nevertheless, it exists a tool that generates results that are of greater utility than the own inventories of emissions, this tool is the modeling, that can be from simplest, dispersion models, until most complex like the photochemical models. For the application of these models it is required to generate information with quality, and part of the information is mainly the own emissions inventories. In Mexico the develop of inventories of emissions with such aims is beginning. Due to this the necessity is created to develop new methodologies to diminish the degree of uncertainty of the inventories, as well as the development of such inventories with aims of modeling.

In this work it is described the methodology to be followed to develop emissions inventories to the atmosphere of point and mobile sources with modeling aims. Where these inventories are considered in an hourly base, being representative for every day of the week, as well as the implementation of a quality control and validation of the information of the inventory of point sources due to nature of this inventory, whereas in the one of mobile sources it emphasizes the methodology of georeferenced emissions with hourly base, considering different types of vehicles as well as their age.

These methodologies are applied to the municipality of Naucalpan de Juárez, Estado de Mexico, which is located in the northwest of the Metropolitan Zone of the Valley of Mexico, being this one of the suburbs municipalities and one of the most industrialized of Mexico City.

In the results, it is showed the behavior of the hourly and daily profile of the emissions of mobile and point sources, and in first instance some recommendations are given to the environmental authorities to take action to reduce emissions. The inventory of emissions with modeling aims is left ready; in addition to that, with this inventory can be raised scenes to simulate the behavior of the polluting agents in the atmosphere, when some actions are taken, like the reduction of emissions of some of the sources in specific.