

**MOTORCYCLES EMISSION AND THE EFFECTS ON TEHRAN AIR QUALITY****F.S. Halek**, M. Keyanpour Rad, K. Abbaspour, A. Kavouci*Environmental Group, Materials & Energy Research Center, Tehran, Iran*

The Tehran area with approximately 2300 square km and a population of more than 10 million is suffering from motor vehicles emissions. Traffic density and flow condition in Tehran have become progressively worse and consequently, air pollution is getting more serious. As a result of severe traffic problems, motorcycles are coming a popular mode of transportation. More than 50% of motorcycles in Tehran metropolitan region are 2-stroke engines. 2-stroke motorcycles are more commonly used than 4-stroke ones; because they are cheaper and also simple manufactured. It is observed that CO and HC emission rates for 2-stroke and 4-stroke were 2-5 times higher than of the standards. It is also noticed that CO and HC pollutants vary in different models. Almost all of models were tested in this project. The results also revealed that motorcycles emission, the narrow streets with tall buildings, the meteorological factors such as weak winds and also other vehicles emission dangerously pollute the Tehran atmosphere.