The atmospheric lead concentration in Bangkok Metropolis is usually not more than 2 ug/m<sup>3</sup> (24 hour average). The multiple correlation coefficients of wind speed - lead from automobile - atmospheric lead concentration are 0.6141 and 0.5247 and the coefficients of percent calm wind - lead from automobile - atmospheric lead concentration are 0.6583 and 0.5782 (for wind speed and percent calm at Sukumvith and Don Muang Meteorological Station respectively). Atmospheric lead distribution in Bangkok is uniform in different areas. Results from air quality monitoring stations located on the same wind channel such as Saowapa, Ban Somdej, Chankasem, and Office of the National Environment Board shows similar levels of lead concentration. The comparison of lead emission from industrial source and automobile shows that main source of lead that contaminates in the atmosphere of Bangkok is from gasoline.