

1975 to 1979, there was no significant decrease in annual values of suspended particulate matter).

The Ontario Ministry of the Environment Annual Reports on Ambient Air Quality in Windsor, Ontario, show a high correlation between elevated concentrations of suspended particulate matter and winds from the direction of Wayne County, Michigan. It would appear, therefore, that local and mesoscale transboundary flow of suspended particulate matter occurs from Wayne County to Windsor; 90% of the emissions of particulate matter in that area come from the Wayne County area.

Alkaline particulate material introduced into the atmosphere from wind blown dust and fugitive dust from industrial or mining activities may neutralize already present acidic particles and may modify the chemical conversion processes even on the local to mesoscale. There is evidence, for example, of emissions of alkaline dust from cement plants in the vicinity of Syracuse, New York, raising the pH of precipitation sampled in their vicinity.

(f) Fluorides

There has been documented evidence of the transport of fluorides emitted by aluminum smelters located near Massena, New York, into the neighboring area of Cornwall Island, Ontario. Investigations are presently underway to determine whether or not these have caused any health effects.

4.2 Survey of Local and Mesoscale Models

The Regional Modeling Subgroup Report (2F - M) includes a detailed investigation of eight long-range transport models and their computational results. These models produce transfer matrices for the purpose of determining source-receptor relationships over eastern North America. The transfer matrices from the long-range models indicate that, at the nine sensitive receptor points, from 10 to 40% of the annual wet sulfur deposition comes from sources within 300 km while the remaining 60 to 90% comes from sources that are farther away. There are variations among the different models about the contribution from sources within 300 km and at the present