To assist in examining the historical emission trends on a regional scale, tables have been prepared in which the states are grouped according to the appropriate EPA regional offices (Regions I through V). Trends in  $SO_X$  and  $NO_X$  emissions for each state along with a summary for each grouping of the states (by regional office) are shown in the following tables (Tables B.1.3 and B.1.4). To some extent, the regional office grouping can be used to examine trends in the following broad geographical areas of the country:

Regions I an	d II	-	Northeast
Region III		-	Mid-Atlantic
Region IV		-	Southeast
Region V		-	Midwest

In the northeast,  $SO_x$  emissions appear to have decreased by about 40% from 1955 to 1978. While the trend may be real, it should be noted that the data for 1950 and 1955 are less reliable than for the more recent years. Part of this apparent decrease may be due to errors in the data; however, it should be noted that a 38% reduction in  $SO_x$  emissions in the northeast also was observed between 1965 and 1978. Therefore,  $SO_x$  emissions appear to have been significantly reduced in the northeast since 1950.

Contrary to the reduction in  $SO_x$  emissions noted in the northeast, the states in Region III (mid-Atlantic) have generally maintained about the same level of  $SO_x$  emissions. There appears to have been a small steady increase between 1955 and 1970, and a small but steady decline between 1970 and 1978.

The southeastern states exhibited a sharp increase in  $SO_X$  emissions between 1950 and 1978 with the data suggesting that this increase may have been as high as three to five-fold.

In the midwest (Region V), there appears to have been a significant steady increase in  $SO_x$  emissions between 1955 and 1965 and a steady decline in these emissions since 1965. Levels today are about 25% higher than in 1955 in this area of the country.

The states of Arkansas, Iowa, Louisiana, Missouri, and Texas have exhibited a steady increase in  $SO_2$  emissions since 1950.  $NO_x$  emissions in Arkansas and Iowa appear to have doubled since 1955, while Louisiana and Missouri appear to have experienced a greater than 50% increase and Texas about 24%.

All the areas examined exhibit significant increases in  $NO_X$  emissions over the time period studied. This increase ranges from about a factor of two in the northeast to over three in the south. The trends also indicate that  $NO_X$  emissions have increased steadily and did not peak in the mid-1960's as did SO<sub>2</sub> emissions.