

2.2 Agreed Upon Sulfur Dioxide Emissions Inventory (1978)

2.2.1 Canada

The best estimate Canadian sulfur dioxide emissions inventory for the base year 1978 was developed by the Canadian part of Work Group 3B for use in model validation. Point sources were located by their latitude - longitude and area sources specified on a 127 km to 127 km grid spacing.

For the final phase, it was decided that the emission source regions to be used in the development of an MOI transfer matrix should be resolved spatially on a province/subprovince and state/multi-state level as shown in Figure 2.1; there are 15 source regions in Canada and 25 in the U.S. The emissions of sulfur dioxide in Canada summarized by province and source region are shown in Table 2.1.

Table 2.2 shows the historical trend in Canada for emissions of sulfur dioxide. It can be seen that the emissions of sulfur dioxide increased from 1955 to 1965 but decreased from 1965 to 1978. There has been a significant increase in the sulfur dioxide emissions from utilities over the time period shown but the emissions from copper-nickel smelting peaked in 1965 and have since been decreasing (the emissions from this sector are lower than current levels because of the prolonged work stoppage at the Inco Smelter in Sudbury in 1978).