

A.5 MOBILE SOURCES SUMMARY

The mobile sources sector is a major source of NO_x emissions (currently 44% of NO_x in the U.S. and 60% in Canada) but SO_x emissions from this sector are negligible. Control technology is available for NO_x and stringent emission limits for the design performance of new vehicles are in place in the U.S. and are being considered in Canada for 1985.

The technology for meeting the current automobile emission standards in the U.S. employs the "three-way" catalyst technology (called three-way because it controls HC, CO and NO_x), coupled with a series of electronic and vacuum sensing devices which detect and control selected engine operating parameters.

Between 1980 and 2000, NO_x emissions from this sector are projected to increase by about 15% in the U.S. and by 50% in Canada. For practical purposes this disparity is accounted for by differences in the light duty, gasoline powered vehicles partly because more stringent emission standards were introduced in 1981 in the U.S. and partly because a much faster growth rate for vehicle miles travelled (VMT) by light duty vehicles is being projected in Canada.

In the absence of changes to federal emission limits in either country, the contribution of the transportation sector to NO_x emissions in the year 2000 is projected to be 40% in the U.S. and 70% in Canada. The opposite trends in the two countries (see 1980 percentages above) is explained primarily by the factors cited above but also by the opposite directions of the trend in electric utility emissions (29% to 36% in the U.S. and 13% to 10% in Canada) and the less stringent emission standards for light duty vehicles in Canada.