

## A. SUMMARY OF FINDINGS AND CONCLUSIONS

### A.1 INTRODUCTION

This is an interim report by Work Group 3B (Emissions, Costs and Engineering Assessment) as part of the commitment in fulfillment of the requirements of the MEMORANDUM OF INTENT signed by the United States and Canada on August 5, 1980. The Terms of Reference and the membership for Work Group 3B can be found in Appendix 1 of this report.

This report reviews, in detail, the technologies (process and control), costs of application of controls for the reduction of  $\text{SO}_2$  and  $\text{NO}_x$  emissions (for both new and retrofit installations; costs for retrofit installations are generally greater than for new installations), and emissions (historical, present and projected) for the thermal power industry sector (eastern U.S. and Canada), non-ferrous smelters (eastern Canada) and mobile sources (U.S. and Canada). These sectors, together with industrial, residential and commercial fuel combustion, account for the majority of the  $\text{SO}_x$  and  $\text{NO}_x$  emissions in the eastern part of North America, and hence are judged to be the most important sources in the acid precipitation problem. A more brief review is carried out for petroleum refining, solid waste incineration and pulp and paper. These sectors are considered to be of secondary importance to the acid precipitation problem since their emissions of  $\text{SO}_x$  and  $\text{NO}_x$  are considerably smaller in magnitude than those of the three primary sectors. Note that all emissions in Chapter A are in short tons, while emissions in subsequent chapters are partly in short tons and partly in tonnes (metric).

Included in this report are recommendations for future R&D activities and conclusions and recommendations concerning the control of  $\text{SO}_x$  and  $\text{NO}_x$  emissions.