approximations, depends upon the specific applications of these models. For example, the chemistry determines the proportion of each form of sulfur that can be deposited at a given downwind distance. If total sulfur, that is, sulfur dioxide plus sulfate, is of primary interest, the chemistry involved in sulfur dioxide to sulfate conversion acquires a secondary role. On the other hand, if the deposition of hydrogen ion and other ionic species must be specified, then atmospheric chemistry would play a crucial role in determining the contributors to the acid rain impact. In fact, a demand for distinct ionic species cannot be adequately satisfied by the chemistry module of any current long range transport model.

There are other specifications which would have to be satisfied before these models are able to provide reliable detailed control strategy advice for control options involving specific point sources. For this level of application the significance of episodic deposition events which contribute a large part of the total seasonal or annual deposition must be understood. Similarly the role of deposition in snow leading to spring "snow melt shock" in streams would need to be clarified.

The Work Group has placed a high priority on addressing all issues raised by the peer and other external reviews of the working papers that preceded this final report. The working documents were reviewed by 46 individuals or groups. Based on an analysis of these diverse peer reviews by an independent contractor[1], the Work Group concluded that

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[1] Munn, R.E. (1982). Synthesis of Peer Reviews: Conclusions and Recommendations. Institute for Environmental Studies, The University of Toronto, Ontario, Canada.