

sulfur. The RCDM has been evaluated against historical ambient data and current sulfur dioxide and ambient sulfate and wet sulfur deposition data.

#### Discussion of Input Parameters Used

Table 3-1 outlines the parameter values for the meteorological and chemical processes used in these models.

The sulfur dioxide transformation rate to sulfate is set at 1%/hour in most models with some seasonal variability allowed.

The sulfur dioxide dry deposition velocity for the Canadian models and ASTRAP is set near 0.5 cm/s and double that for RCDM and ENAMAP. The sulfate dry deposition velocity used varies from 0.05 cm/s (OME-LRT) to 0.4 cm/s (ASTRAP) with most models using 0.1 cm/s.

The parameterization of wet removal shows the greatest variability. Some models use percentage removal as a function of rainfall rate (with 100% removal occurring at rates ranging from 0.67 to 14 mm/h), while others use a constant removal rate during precipitation (with 100% removal occurring in 27.6 to 2.8 hours).