For airport applications, the typical AERMOD input requirements and their corresponding data parameters are listed in **Table 7-1** (*AERMOD Model Inputs and Data Requirements*).

Table 7-1. AERMOD Model Inputs and Data Requirements

Model Inputs	Data Parameters
Model Options	• Averaging time • Pollutants • Urban versus rural
Emission Source Release Parameters	• Location coordinates • Area dimensions • Roadway link length and width • Stack height • Stack diameter • Exit temperature • Exit velocity
Meteorological Data	• Surface/upper air conditions • Wind speed and direction • Ambient temperature • Mixing height • Surface roughness, albedo, Bowen ratio
Spatial Allocation	• Runway coordinates • Runway utilization • Taxiways and taxipaths • Gate assignments • Airport capacity and configuration
Temporal Profiles	• Quarter hour • Daily • Monthly
Topography Data	• Source and receptor elevations
Building Downwash	• Building height and dimensions • Stationary source locations
Receptor Locations	• Location coordinates • Flagpole height
NO to NO_2 Conversion	• In-stack emission ratio • Ozone concentrations • Initial ozone concentration
Background Concentrations	• Nearby ambient monitoring data
Source: EPA Preferred/Recommended Models, *AERMOD Modeling System*, http://www.epa.gov/ttn/scram/dispersion_prefrec.htm#aermod.	

When dispersion modeling is conducted at airports for the EPA criteria pollutants, CO, NO_2, PM_{10}, and $PM_{2.5}$ are most commonly evaluated. Characteristically, CO levels are typically elevated in areas of high motor vehicle traffic such as the main terminal area access/egress roadways, curbsides and parking facilities. By comparison, NO_2 concentrations are also more likely to be highest near the runway ends where aircraft engine thrust settings are at their highest.