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**Air-Sampling Data from Area G:  
A Radioactive-Waste Management Site**

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## Weather and Climate

The following discussion is summarized from Bowen's "Los Alamos Climatology" (Bowen, 1990) The Pajarito Plateau has a semiarid, temperate mountain climate. Most days are sunny with light winds. There is usually a large diurnal variation in daily temperature, especially during the summer months. Surface winds are normally light at TA-54, averaging less than 3 m/s (6 mph). Wind speeds are strongest from March through June and weakest in December and January. Sustained wind gusts are common in the spring. Annual rainfall and mean wind speed measurements from 1992 to 2002 are provided in Table 1. A wind rose showing the relative frequency of wind by direction and speed is given in Appendix A. Table 2 presents a seasonal average of wind speed measurements collected at the TA-54 meteorological ("met") tower, as well as typically peak daily wind gusts by season. A recent study in New Mexico suggests that wind erosion over one week is more strongly related to daily peak wind velocities than to daily average velocities (Whicker et al., 2001). Absolute humidity, which is used in tritium analysis, has been reported only since 1998. The annual average absolute humidity for Area G is 3.85 g/m<sup>3</sup>. However, daily values can vary over a wide range, e.g., from 0.10 g/m<sup>3</sup> to 14.10 g/m<sup>3</sup>.

**Table 1. Selected annual meteorological data measured at the TA-54 meteorological tower.**

<b>Year</b>	<b>Annual precipitation (in.)</b>	<b>Mean wind speed (m/s)</b>
1992	12.76	2.63
1993	13.08	2.70
1994	16.95	2.71
1995	13.31	2.76
1996	14.82	2.86
1997	17.78	2.64
1998	12.69	2.70
1999	16.85	2.73
2000	14.03	2.77
2001	9.07	2.66
2002	9.37	2.92