

SAND78-0760

WIND CHARACTERISTICS AT THE VAWT TEST FACILITY

R. E. Akins
Environmental Research Division
Sandia Laboratories
Albuquerque, New Mexico 87185

ABSTRACT

A limited program of field measurements was undertaken in order to define the wind characteristics of the DOE/Sandia vertical axis wind turbine test facility. Because micrometeorological conditions under which a particular wind turbine is tested may have an effect on the performance of that turbine, it is important that these conditions be properly documented. The mean velocity profile, longitudinal and lateral turbulence intensities, longitudinal velocity spectra, and cross-correlations between the velocities at select locations were measured for a representative sample of incident winds. These measurements are summarized in a form which should facilitate comparison with other sites.