

Description of Meteorological Data:

As requested, data files of MNGP meteorological data taken at 100 meters for 1998-2002 in ARCON96 format are provided. Files with nomenclature "100MARCON.xx" are the original data files compiled from the MNGP MIDAS meteorological database in the ARCON96 file format specified in Appendix A of Regulatory Guide 1.194, "Atmospheric Relative Concentrations For Control Room Radiological Habitability Assessments At Nuclear Power Plants," June 2003. Files with nomenclature "100M New ARCON.xx" have added "9"s to indicate invalid data as described in Appendix A of RG 1.194. Wind speeds are given in meters/second entered to the nearest tenth of the reporting unit with the decimal point assumed. Wind direction is given in degrees from which wind is blowing as an integer. The upper-level data was taken at 100 meters; the lower level data was taken at 10 meters.

The following is taken from RAI response dated February 28, 2005 and is provided here for information, as the discussion also applies to the 100 meter data files described above.

"Discussion of Differences in ARCON96 and PAVAN Data Generation"

In response to the question above, the ARCON96 (Reference 6) input files were compared with the PAVAN (Reference 7) joint frequency distribution input files. The comparison displayed minor differences due to the data selection process used to create the files.

Meteorological data for MNGP is collected in data files created by the Meteorological Information and Dose Assessment System (MIDAS). The MNGP primary meteorological tower has two redundant trains of sensors, and data from both trains are stored in the MIDAS data files. The programs that generated the ARCON96 input data and PAVAN joint frequency distribution tables used the same MIDAS data files but each program used a slightly different data selection process.

The PAVAN joint frequency distribution tables created by the MIDAS software report data for only one instrument train. Annual joint frequency distribution data from the instrument train with the highest data recovery rate during the year of interest was utilized as input to PAVAN.

Conversely, the ARCON96 input data generation program accessed data from both instrument trains. The program reported data from one train unless the hourly data status code was "bad," in which case data from the alternate train were reported. The availability of the alternate train data for the ARCON96 files resulted in a higher data recovery rate. Therefore, the ARCON96 data reflect a slightly higher number of hours for calm winds as well as other wind categories when compared to the joint frequency distribution tables.

The ARCON96 input files and PAVAN joint frequency distribution table input files were compared; both were found to be representative of the unprocessed meteorological data for the period 1998 - 2002. Small differences in hours of missing data, calm winds, or particular stability classes were determined to be due to the data selection process described above.”