APPENDIX A

STANDARD FORMAT FOR HOURLY METEOROLOGICAL DATA

When hourly meteorological data are submitted to the NRC, the data may be submitted on mutually agreed upon magnetic media. The media may be disks or magnetic tapes. The data should be in files that are of a size that are convenient for use and storage. Annual data files are acceptable.

Use of a standard format for submission of hourly meteorological data will facilitate data evaluation and dispersion analysis. The standard data format is similar to the format described in Appendix A of Standard Review Plan 2.3.3 (NRC 1987). The only differences are in the first two fields of the data records. The second field has been increased to permit specification of the year using four digits rather than two, and the first field has been reduced from six bytes to four bytes and is now specified as a character string rather than an integer. The format for the remainder of the record is identical to the format in SRP 2.3.3.

At the beginning of each file, use the first five (5) records to give a tape description. Include plane name, location (latitude, longitude), dates of data, information explaining data contained in the "other" fields if they are used, height of measurements, and any additional information pertinent to identification of the tape. Make sure all five records are included, even if some are blank. Format for the first five records will be 160A1. Meteorological data format is (A4, I4, I3, I4, 25F5.1, F5.2, 3F5.1). Table 2.7-1 shows the size and content of each field in the meteorological data records in the standard format. In addition, it provides a form for recording supporting information about the meteorological instrumentation.

All data should be given to the tenth of a unit, except solar radiation, which should be given to a hundredth of a unit. This does not necessarily indicate the accuracy of the data (e.g., wind direction is usually given to the nearest degree). All nines in any field indicate a lost record (99999). All sevens in a wind direction field indicate calm (77777). If there are only two levels of data, use the upper and lower levels. If there is only one level, use the upper level.

Table 2.7-1. Hourly Meteorological Data

LOCATION:

DATE OF DATA RECORD:

_A4_	Identifier (can be anything)
_I4_	Year
_I3_	Julian Day
_I4_	Hour (on 24-hour clock)

<u>ACCURACY</u>

_F5.1_	Upper Measurements: Level = _____ meters	_____
_F5.1_	Wind Direction (degrees)	_____
_F5.1_	Wind Speed (meter/sec)	_____
_F5.1_	Sigma Theta (degrees)	_____
_F5.1_	Ambient Temperature (°C)	_____
_F5.1_	Moisture: _____	_____
_F5.1_	Other: _____	_____

_F5.1_	Intermediate Measurements: Level = _____ meters	_____
_F5.1_	Wind Direction (degrees)	_____
_F5.1_	Wind Speed (meter/sec)	_____
_F5.1_	Sigma Theta (degrees)	_____
_F5.1_	Ambient Temperature (°C)	_____
_F5.1_	Moisture: _____	_____
_F5.1_	Other: _____	_____

_F5.1_	Lower Measurements: Level = _____ meters	_____
_F5.1_	Wind Direction (degrees)	_____
_F5.1_	Wind Speed (meter/sec)	_____
_F5.1_	Sigma Theta (degrees)	_____
_F5.1_	Ambient Temperature (°C)	_____
_F5.1_	Moisture: _____	_____
_F5.1_	Other: _____	_____

Table 2.7-1. (contd)

F5.1   Temp. Diff. (Upper-Lower) (°C/100 meters)   ____

F5.1   Temp. Diff. (Upper-Intermediate) (°C/100 meters)   ____

F5.1   Temp. Diff. (Intermediate-Lower) (°C/100 meters)   ____

F5.1   Precipitation (mm)   ____

F5.1   Solar Radiation (cal/cm²/min)   ____

F5.1   Visibility (km)   ____

F5.1   Other: ____   ____

F5.1   Other: ____   ____