January (730 m [2395 ft.]), and the greatest mean mixing depth occurs in May (1410 m [4625 ft.]) (Reference 2.7-022).

2.7.3.6 Effects of Global Climate Change on Regional Climatology

Global trends in various meteorological and geophysical parameters are currently the subject of much discussion in both the scientific community and in the media. While it may be evident (and expected) that changes in the averages of certain meteorological parameters are occurring over time (that is, such as temperature and precipitation), it is also evident and generally acknowledged that the prediction of any such changes are difficult if not impossible to reliably predict. Even the most reliable climate change models are not capable of accurately predicting design basis extremes in weather patterns. A discussion of public concerns or speculations about climate change would not add to the resolution of these issues, nor would a discussion of changes in average global trends, because these data cannot be reviewed on a site-specific basis with any degree of accuracy or reliability. It is relatively easy to demonstrate that an increase in the average value of temperature (or precipitation) at a given location is much more likely to be a result of numerous increases in temperatures (or precipitation) in the "normal range" rather than increases in extreme values, because a change in a select number of extreme values will essentially have no measurable effect on longer term average values. Therefore, the information presented in this section is focused on the extreme meteorological conditions that will facilitate a plant design that will operate within these safety margins. This is accomplished by identifying historical extremes and projecting, in a scientifically defensible manner, the potential effects weather will have on the safety and operation of the LNP.

2.7.4 LOCAL METEOROLOGY

An on-site meteorological monitoring system has been in operation at the LNP site since February 1, 2007. The on-site tower is located approximately 1.4 km (0.9 mi.) west-southwest of the proposed locations of LNP 1 and LNP 2 and consists of a 60.4-m (198-ft.) guyed, open-latticed design. The location of the tower is shown on Figure 2.7-2. The base of the tower is at approximately 13.7 m (45 ft.) above mean sea level (msl). Local meteorological monitoring results and summaries of the parameters monitored by the on-site system are described and presented in this subsection. A more detailed description of the on-site meteorological monitoring system and operational program is provided in ER Section 6.4.

The POR of on-site meteorological measurements is the 2-year period from February 1, 2007, to January 31, 2009.

2.7.4.1 Normal and Extreme Values of Meteorological Parameters

2.7.4.1.1 Wind Summaries