

## APPENDIX 3A

### DESIGN OF STRUCTURES, COMPONENTS, EQUIPMENT, AND SYSTEMS - INTERFACES

#### 3A.3 Wind and Tornado Loadings

##### 3A.3.1 Wind Loadings

The NPB may be located at a site where the Operating Basis Wind is less than or equal to the magnitude of 130 MPH used in design. The Operating Basis Wind generally has little influence on the safety of the NPB since most items subjected to wind loads must also be designed for the tornado wind loads which are substantially higher.

The magnitude of 130 mph has been selected based on the most severe location identified in ANSI A58.1 "Building Code Requirements for Minimum Design Loads in Buildings and Other Structures."

##### 3A.3.2 Tornado Loadings

The tornado used in the design of the NPB is the tornado specified in ANSI/ANS 2.3-1983 "Standard for Estimating Tornado and Extreme Wind Characteristics at Nuclear Power Sites." Since the nuclear power block is intended for a wide range of sites, the maximum windspeed is selected as 320 mph which is the maximum specified corresponding to a probability of  $10^{-7}$  per year for any location in the U.S.

The ANSI/ANS 2.3 standard is based on detailed analyses and evaluation of the data by experts leading to issue of the consensus standard in 1983. It represents more recent in-depth evaluation than was incorporated in Regulatory Guide 1.76 and the Standard Review Plan.

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