the level of protection offered by surrounding exposure conditions, and the design wind speed. Therefore, the risk of impact may differ from those postulated as a result of the conditions specifically enumerated in the standard and the referenced impact standards. The committee recognizes that there are vastly differing opinions, even within the standards committee, regarding the significance of these parameters that are not fully considered in developing standardized debris regions or referenced impact criteria.

Recognizing that the definition of the wind-borne debris regions given in ASCE 7-98 through ASCE 7-05 was largely based on engineering judgment rather than a risk and reliability analysis, the definition of the wind-borne debris regions in ASCE 7-10 for Risk Category II buildings and structures has been chosen such that the coastal areas included in the wind-borne debris regions defined with the new wind speed maps are approximately consistent with those given in the prior editions for this risk category. Thus, the new wind speed contours that define the wind-borne debris regions in Section 26.10.3.1 are not direct conversions of the wind speed contours that are defined in ASCE 7-05 as shown in Table C26.5-6. As a result of this shift, adjustments are needed to the Wind Zone designations in ASTM E 1996 for the determination of the appropriate missile size for the impact test because the Wind Zones are based on the ASCE 7-05 wind speed maps. Section 6.2.2 of ASTM E 1996 should be as follows:

6.2.2 Unless otherwise specified, select the wind zone based on the basic wind speed as follows:
- 6.2.2.1 *Wind Zone 1* – 130 mph ≤ basic wind speed < 140 mph.
- 6.2.2.2 *Wind Zone 2* – 140 mph ≤ basic wind speed < 150 mph at greater than 1.6 km (one mile) from the coastline. The coastline shall be measured from the mean high water mark.
- 6.2.2.3 *Wind Zone 3* - basic wind speed ≥ 150 mph, or basic wind speed ≥ 140 mph and within 1.6 km (one mile) of the coastline. The coastline shall be measured from the mean high water mark.

However, While the coastal areas included in the wind-borne debris regions defined in the new wind speed maps for Risk Category II are approximately consistent with those given in ASCE 7-05, significant reductions in the wind-borne debris regions for this risk category occur in the area around Jacksonville, Florida, in the Florida Panhandle, and inland from the coast of North Carolina.

The introduction of separate risk-based maps for different risk categories provides a means for achieving a more risk-consistent approach for defining wind-borne debris regions. The approach selected was to link the geographical definition of the wind-borne debris regions to the wind speed contours in the maps that correspond to the particular risk category. The resulting expansion of the wind-borne debris region for Risk Category III and IV buildings and structures (wind-borne debris regions in Fig. 26.5-1C that are not part of the wind-borne debris regions defined in Fig. 26.5-1B) was considered appropriate for the types of buildings included in Risk Category IV. A review of the types of buildings and structures currently included in Risk Category III suggests that life safety issues would be most important, in the expanded wind-borne debris region, for health care facilities. Consequently, the committee chose to apply the expanded wind-borne debris protection requirement to this type of Risk Category III facilities and not to all Risk Category III buildings and structures.

C26.11 INTERNAL PRESSURE COEFFICIENT

The internal pressure coefficient values in Table 26.11-1 were obtained from wind tunnel tests (Stathopoulos et al. 1979) and full-scale data (Yeatts and Mehta 1993). Even though the wind tunnel tests were conducted primarily for low-rise buildings, the internal pressure coefficient values are assumed to be valid for buildings of any height. The values (GC_{pi}) = +0.18 and –0.18 are for enclosed buildings. It is assumed that the building has no dominant opening or openings and that the small leakage paths that do exist are essentially uniformly distributed over the building's envelope. The internal pressure coefficient values for partially enclosed buildings assume that the building has a dominant opening or openings. For such a building, the internal pressure is dictated by the exterior pressure at the opening and is typically increased substantially as a result. Net loads, that is, the combination of the internal and exterior pressures, are therefore also significantly increased on the building surfaces that do not contain the opening. Therefore, higher (GC_{pi}) values of +0.55 and –0.55 are applicable to this case. These values include a reduction factor to account for the lack of perfect correlation between the internal pressure and the external pressures on the building surfaces not containing the opening (Irwin 1987 and Beste and Cermak 1996). Taken in isolation, the internal pressure coefficients can reach values of ±0.8 (or possibly even higher on the negative side).