ground motion intensity that is based on maximum, rather than the average (geometrical mean), response spectra acceleration in the horizontal plane. These differences are explained in detail in the Commentary of the 2009 *NEHRP Recommended Provisions*. Except for determining the MCE_G PGA values in Chapters 11 and 21, the mapped values are given as MCE_R spectral values.

C11.7 DESIGN REQUIREMENTS FOR SEISMIC DESIGN CATEGORY A

The 2002 edition of this standard included a new provision of minimum lateral force for Seismic Design Category A structures. The minimum load is a structural integrity issue related to the load path. It is intended to specify design forces in excess of wind loads in heavy low-rise construction. The design calculation is simple and easily done to ascertain if it governs or the wind load governs. This provision requires a minimum lateral force of 1 percent of the total gravity load assigned to a story to assure general structural integrity.

C11.8.2 Geotechnical Investigation Report Requirements for Seismic Design Categories C through F

Earthquake motion is only one factor in assessing potential for geologic and seismic hazards. All of the listed hazards can lead to surface ground displacements with potential adverse consequences to structures. Finally, hazard identification alone has little value unless mitigation options are also identified.

C11.8.3 Additional Geotechnical Investigation Report Requirements for Seismic Design Categories D through F

In the 2003 NEHRP Commentary, liquefaction requires consideration of both peak ground acceleration and earthquake magnitude. The 2003 NEHRP Provisions specify a default value of $S_{DS}/2.5$ for peak ground acceleration. However, Section 11.8.3 of this standard specifies a default value of $S_S/2.5$, which is generally more conservative than the default value specified in the NEHRP Provisions, except in the case of lower values of S_S for Site Class E. The 2.5 factor is a nominal amplification from peak ground acceleration to short period spectral response acceleration.

The assessment of liquefaction potential may be based on the Summary Report and supporting documentation contained in *NCEER-97-0022, Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils*, available from the Multidisciplinary Center for Earthquake Engineering Research, State University of New York at Buffalo, Red Jacket Quadrangle, Buffalo, New York, 14261.