

## Preface

One of the lessons from the Great Hanshin-Awaji Earthquake in 1995 was that seismically base-isolated buildings have excellent seismic performance characteristics. Since then, the number of base-isolated buildings in Japan has steadily grown and will continue to do so in the future, representing an important component of establishing a so-called a sustainable society. In order to meet these expectations, base-isolation bearing and damping devices must be designed, manufactured, installed and maintained to ensure that they possess appropriate performance characteristics to resist wind loads as well as appropriate seismic performance characteristics necessary to resist the various types of earthquake motions including long period and strong motion shaking.

It is important to recognize that wind action has very different characteristics compared with earthquake action. First, wind loading is generally of very long duration compared to earthquake shaking. Second, wind loading comprises a static component (mean component) and, depending on building shape, closely-related cyclic action in the across wind direction and/or torsion caused by vortex shedding. These factors mean that wind loading effects on base-isolation bearing and damping devices should be carefully evaluated and their design should include a thorough understanding of the effects. This is extremely important for tall seismically base-isolated buildings, and buildings with high aspect ratios, both of which are becoming more common these days.

To address these important issues, the Sub-committee for Wind-resistant Design was established as a JSSI Technical Committee in June 2007 and Guidelines for Wind-resistant Design of Base-isolated Buildings was published in September 2012. This document is the English version of the Guidelines, excluding simple change of the English title and only some portions of Appendix 2.

We hope that these Guidelines contribute to enhancing the good performance of seismically base-isolated buildings under wind effects as well as seismic effects.

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Sub-committee for Wind-resistant Design  
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