Dear Sir/Madam

ADOPTION OF NEW SINGAPORE STANDARD SS 555:2010 – CODE OF PRACTICE FOR PROTECTION AGAINST LIGHTNING

Objective

This circular is to inform the industry on the adoption of new Singapore Standard SS 555:2010 – Code of practice for protection against lightning

Adoption of SS 555:2010 – Code of Practice for Protection against Lightning

2 Clause L on Lightning Protection in the Fifth Schedule of the Building Control Regulations (on Objectives and Performance Requirements for the Design and Construction of Buildings) requires buildings and its occupants to be protected from the direct effects of lightning strike and the risk of lightning current being discharged through the building. Currently, designs which are in accordance with Singapore Standard CP 33 – Code of Practice for Lightning Protection are deemed to have complied with the above Objectives and Performance Requirements.

3 With the launch of the new SS 555:2010 – Code of Practice for Protection against Lightning in November 2010, BCA has decided to adopt it to replace CP 33 as the deemed approved solution for compliance with the Regulations. With effect from 1 July 2011, developments whose building plans are submitted on or after this date must comply with the relevant requirements in SS 555:2010.

4 The new SS 555:2010 is aligned to the IEC 62305 International Standard on Protection against Lightning, and it comprises of the following four parts:

   a) Part 1: General principles – This part provides guidelines for lightning protection of structures and their installations, their contents including persons within the structures and services connected to the structures.
b) Part 2: Risk Management – This part introduces evaluation procedures for assessing lightning risk for a structure or its services, and selection of lightning protection measures upon completion of risk assessment.

c) Part 3: Physical damage to structures and life hazard – This part provides requirements for the protection of a structure against physical damage by means of a lightning protection system. It also provides requirements for protection of living beings in the vicinity of the lightning protection system against injuries caused by touch or step voltages.

d) Part 4: Electrical and electronic systems within structures – This part provides guidelines on the design, installation, inspection, maintenance and testing of Lightning Electromagnetic Pulse (LEMP) protection systems for electrical and electronic services within a structure.

5 Specifically, BCA would like to draw industry’s attention to the four classes (I, II, III and IV) of lightning protection system which are mentioned in Part 3 of the SS555:2010. For the purpose of complying with the Building Control Regulations, a minimum level of Class III lightning protection system (equivalent to a rolling sphere radius of 45m under the rolling sphere method of determining air termination positions) must be provided. For buildings with higher risks (e.g. storage of explosive or flammable contents), a higher level lightning protection must be provided accordingly.

Lightning Protection at Rooftop Garden

6 BCA has observed an increasing trend of developments with rooftop gardens for the enjoyment of the residents/public. Industry is reminded that such rooftop gardens must be provided with lightning protection system as well.

Clarification

7 We would appreciate it if you could convey the contents of this circular to the members of your organisation. For clarification, you may email to bca_enquiry@bca.gov.sg or call our hotline 6325 7159.

Yours faithfully

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