

Your Ref :

Our Ref: CD/FSSD/12/02/03/01

Date : 17 April 2015

Registrar, Board of Architects
Registrar, Professional Engineers Board
President, Singapore Institute of Architects
President, Institution of Engineers, Singapore
President, Association of Consulting Engineers, Singapore

Dear Sir/Mdm

AMENDMENTS TO THE FIRE CODE 2013 – CL.7.6.24 FIRE-RATED SMOKE VENTILATION DUCTS

Clause 7.6.24 of the prevailing Fire Code stipulates that smoke ventilation ducts (both exhaust and replacement air ducts) shall be of at least 1-hour fire resistance. Where a duct passes through other fire compartment of higher rating, the duct shall be constructed to have the rating as that of the compartment. The rating shall apply to fire exposure from both internal and external of the duct or structure and the duct shall also comply with sub-clause 7.1.1(j).

2. SCDF has received feedback from the building industry on the challenges faced in constructing the 1-hour fire resistance, especially for construction works involving low ceiling height. The SCDF Fire Code Review Committee has thus reviewed and revised clause 7.6.24 as follows:

- a. Cl.7.6.24 - Smoke ventilation ducts (both exhaust and replacement air ducts) shall be of at least 1-hour fire resistance. The rating shall apply to fire exposure from both the internal and external of the duct or structure and the duct shall also comply with sub-clause 7.1.1 (j).



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b. Where a duct passes through other fire compartment with higher fire rating, the duct shall be constructed to have fire-rating as that of the compartment. Where a duct is installed in a single fire compartment and does not pass through another compartment, smoke control ducts (both exhaust and replacement air ducts) within that compartment need not comply with the 1-hour fire resistance requirement subject to the following conditions:

- i. The smoke ventilation ducts (both exhaust and replacement air ducts) are constructed of at least 1.2 mm thick galvanised steel sheet,
- ii. Sprinklers, designed to CP 52, shall be provided above and below the entire length of the ducts (regardless of the duct dimensions) to protect the duct surfaces by effect of water spray through the activated sprinklers.
- iii. The construction and support of the duct shall conform to the appropriate requirements of the duct construction standards contained in ASHRAE Handbook, IHVE Guild books or SMACNA Manuals.

3. Please convey the contents of this circular to members of your Board / Institution / Association. This circular shall take immediate effect and is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>.

4. For any inquiry or clarification on the above, please contact MAJ Chong Kim Yuan at DID: 68481476 (E-mail: Chong_Kim_Yuan@scdf.gov.sg).

Yours faithfully,

(transmitted via e-mail)

MAJ Tan Chung Yee
Fire Safety & Shelter Department
for Commissioner
Singapore Civil Defence Force



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cc

CEO, BCA
CEO, URA
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President, FSMAS
President, SCAL
Honorary Secretary, SPM
SCDF Fire Safety Standing Committee
Fire Code Review Committee



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