

SINGAPORE CIVIL DEFENCE FORCE

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

Your Ref :

Date : 28 November 2011



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Registrar, Board of Architects (BOA)
Registrar, Professional Engineers Board (PEB)
President, Singapore Institute of Architects (SIA)
President, Institution of Engineers, Singapore (IES)
President, Association of Consulting Engineers, Singapore (ACES)

Dear Sir/Mdm,

AMENDMENTS TO THE FIRE CODE - FIRE SAFETY REQUIREMENTS FOR USE OF PVC CABLES IN AIR PLENUM

An issue was raised during FSSD Standing Committee meeting on the common practice of using PVC cables in air plenum. As this constitutes a fire hazard, a working group comprising representative from IES, IFE and SCDF was formed to look into this issue.

2. The changes to clause 7.1.1 of the Fire Code proposed by the working group were subsequently accepted by the Fire Code Review Committee. The amended clause 7.1.1(f) is shown in Annex A.
3. The revised clause shall take immediate effect.
4. Please convey the contents of this circular to members of your Institution/Association/ Board. The circular is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>.
5. For any inquiry or clarification, please contact: CPT Yam Yeow Kiat at Tel: 68481418 or email: yam_yeow_kiat@scdf.gov.sg.

Yours faithfully,

(transmitted via e-mail)
Poon Keng Soon
Secretary, FSSD Standing Committee
for Commissioner
Singapore Civil Defence Force



cc

All members of FSSD Standing Committee

President, REDAS

President, IFE

President, SISV

CEO, BCA

CEO, URA

CEO, HDB

CEO, PSA

CEO, JTC

CE, LTA

CE, TUV SUD PSB – (Attn: Ms Emily Mok/ Mr Lau Keong Ong)

CE, SPRING Singapore – (Attn: Mr Kenneth Lim)

President, FSMAS

Honorary Secretary, SPM

Annex A

- 7.1.1 (f) A concealed space between the ceiling and floor above it, ceiling and roof, or raised floor and structural floor of a building may be used as a plenum provided that-
- Plenum
- (i) The concealed space contains only:
 - (1) mineral-insulated metal-sheathed cable, aluminium-sheathed cable, copper-sheathed cable, rigid metal conduit, enclosed metal trunking, flexible metal conduit, liquid-tight flexible metal conduit in lengths not more than 2 m, or metal-clad cables;
 - (2) electric equipment that is permitted within the concealed spaces of such structures if the wiring materials, including fixtures, are suitable for the expected ambient temperature to which they will be subjected;
 - (3) other ventilation ducts complying with sub-cl. (b);
 - (4) communication cables for computers, television, telephone and inter-communication system;
 - (5) fire protection installations;
 - (6) pipes of non-combustible material conveying non-flammable liquids.
 - (ii) The supports for the ceiling membrane are of non-combustible material.

(iii) Exception

Low-smoke and low-flame plenum rated PVC cables conforming to NFPA 262 are permitted to be run exposed in plenum, provided that :

- (1) The plenum space shall be protected by sprinkler system or gaseous total flooding system; and
- (2) FCU or AHU using plenum for air return and serving more than one room shall be provided with smoke detector at the return air plenum space to shut down the FCU/AHU on detection of smoke.

New subclause added under Circular dated 28 Nov 2011. (Effective date is immediate)