Dear Sir/Mdm,

PERMITTING SERVICES WITHIN FIRE-RATED DRY CONSTRUCTION IN BUILDINGS

Clause 3.3 of the prevailing fire code stipulates that fire-rated dry construction for wall, floor, ceiling, column or beam in a building shall be tested to achieve the requisite fire resistance rating. The test is carried out without services within it such as electrical cables, gas pipes and chilled water pipes, as these services are combustible and will undermine the fire integrity and insulation of the dry construction under fire conditions.

2) To facilitate industry needs, SCDF has reviewed this requirement and permits the incorporation of services within dry wall construction, subject to the conditions specified in Annex A of this circular. This circular shall take immediate effect.

3) The installation of services within dry wall construction for on-going building projects is permitted provided such installations comply with the requirements in Annex A within 6 months from the date of issuance of this circular. This is to facilitate testing and listing of the product.

4) Please convey the contents of this circular to members of your Board / Institution / Association. This circular is also available in CORENET-e-Info: http://www.corenet.gov.sg/einfo.

5) For any inquiry or clarification on this subject, please contact Mr Pang Tong Teck at DID: 68481403 or E-mail: Pang_Tong_Teck@scdf.gov.sg.
Yours faithfully,

(transmitted via e-mail)

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

cc

CEO, BCA
CEO, URA
CEO, HDB
CEO, JTC
CE, LTA
CE, SPRING Singapore
President, REDAS
President, IFE
President, SISV
President, FSMAS
President, SCAL
President, SMF
Honorary Secretary, SPM
SCDF Fire Safety Standing Committee
Annex A

The conditions to permit the incorporation of services within fire-rated dry wall construction are as follows:

**Design stage**

a) The installations shall meet the fire code requirements and the fire performance test requirements set out in BS 476 Part 22 and shall not incorporate services within such fire-rated dry wall construction beyond the case scenario which it has been successfully tested. i.e. configuration and layout to what it has been tested in meeting the acceptance criteria.

b) Electrical cables shall be housed in metal conduits within the dry construction. Gas pipe installation shall be prohibited in fire-rated dry construction as leaks could cause a fire to the premises.

c) Individual supplier shall conduct fire tests for their entire product ranges i.e. different fire ratings for similar types of dry construction material, same fire rating for different types of dry construction material, etc. However, it would be acceptable for the Test Laboratory to carry out an assessment for similar product ranges with the same fire rating for the dry construction assembly (with services within) with one that had been tested subject to product assessment requirements of Test Laboratory. However, where a dry wall construction differs in terms of fire rating, services layout and configuration etc, separate fire test(s) need to be conducted.

**Commissioning stage**

d) Currently, under the Product Listing Scheme (PLS), it is a requirement for supplier to submit Declaration of Conformity (DOC) for the project to a Certification Body (CB) for audit purposes. However, DOC shall now also be included as a mandatory document for Qualified Person (QP) to submit to SCDF for issuance of Temporary Fire Permit (TFP). The requirement will mandate QP to check on the quality of fire-rated dry construction on site and ensure that the supplier diligently checks the quality of work before submitting the DOC for the project.
Post installation stage

e) Addition & Alteration (A&A) works which were carried out on fire-rated dry construction may contravene design criteria such as puncturing the board for mounting of additional services and thereby undermining its fire integrity and insulation. Therefore, QP shall comply with the following administrative requirements for subsequent A&A works on fire-rated dry construction:

i) The owner shall endorse on plans that where any subsequent A&A works involving fire-rated dry construction are to be carried out, a QP shall be engaged.

ii) For easy identification of fire-rated dry construction within the building, QP shall indicate the locations of fire-rated dry construction on (i) zone chart in accordance with the requirements stipulated in clause 2.2.2 of SS CP 10 of Practice for Installation and Servicing of Electrical Fire Alarm Systems and (ii) A&A building plan for approval by SCDF.