

# SINGAPORE CIVIL DEFENCE FORCE FIRE SAFETY AND SHELTER DEPARTMENT

HQ SINGAPORE CIVIL DEFENCE FORCE  
91 Ubi Avenue 4 Singapore 408827  
Website: <http://www.scdf.gov.sg>



Please quote our ref. no. in all future correspondences

CD/FSSD/12/01/03/04

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24 Sep 2007

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 Sirs

## REPLACEMENT AIR FOR ENGINEERED SMOKE CONTROL SYSTEM

In industrial premises or for large enclosed spaces where engineered smoke control system is designed and installed, it was a practice to design replacement air to be induced via openings fitted with roller shutters at the unit frontage. When closed, these roller shutters will open automatically once receiving a fire signal from the building fire alarm system or dedicated local smoke detectors.

2. A study has been carried out to determine the suitability of openings installed with automatic roller shutters as a means of replacement air inlets for engineered smoke control system. It was found that the automatic roller shutters installed at these openings, normally at the frontage of warehouse / factory unit, are lockable type and when they are locked down, these roller shutters could not be opened automatically to serve as replacement air inlets for the effective operation of the engineered smoke control. It is crucial that replacement air is readily available at all time so as not to jeopardise the effectiveness of the design of the engineered smoke control system.
3. With immediate effect, if automatic roller shutters are to be used at replacement air inlets in the design and installation of engineered smoke control system, they shall be of perforated type having the required effective free area for the effective operation of the engineered smoke control system.
4. Please convey the contents of this circular to members of your Institution/Association/ Board. This circular is also available in CORENET e-Info, <http://www.corenet.gov.sg/einfo>.

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5. For any inquiry or clarification, please contact Mr. Vijayaratnam K. at Tel: 68481448 or e-mail address : vijayaratnam\_KARUPPAIAH@scdf.gov.sg.

Yours faithfully,  
(Transmitted thru' 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,PSB-(Attn: Ms Tan Cheiw Wan / Mr Lau Keong Ong)  
GM, SPRING Singapore-(Attn: Mr Teo Nam Kuan)



ISO 9001 : 2000 Cert.No. : 2149

