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To: Authorized Persons Registered F.S.I. Contractors Registered Ventilation Contractors Registered Lift & Escalator Contractors Electrical & Mechanical Consultants Fire Insurance Association of H.K. The Association of Registered F.S.I. Contractors of Hong Kong Structural Division, H.K.I.E. Power Companies The H.K. & China Gas Co. The Lift & Escalator Contractors Association Hong Kong Telecom Company Ltd. Hong Kong Construction Association Director of Architectural Services Director of Buildings Director of Housing Petroleum Companies

Dear Sir,

## FSD Circular Letter No. 1/2001 Application of Ceiling, Flush, Recessed and Concealed Sprinklers

Clause 26.5.1.1 of the LPC Rules on Automatic Sprinklers states: "sprinklers located in the hottest gas layer, e.g. 75 mm to 100 mm below a flat ceiling, give faster response. It is for this reason that ceiling or flush, recessed and concealed sprinklers are not suitable for life safety applications." The ambiguity contained in this statement has perturbed the local fire engineering professionals who then requested clarification and guidance from the Fire Services Department.

The Fire Services has embarked on a comprehensive study that includes practical tests at the laboratories of the Hong Kong Polytechnic University. The Department has also obtained views from international institutions – NFPA, UL, CSIRO, Warrington, Branz, SP Sweden and Centre National de Prevention et de Protection, France. The study has been completed. The findings were reported to the FSD/Authorized Persons Liaison Meeting and the FSD/Association of Registered FSI Contractors Liaison Meeting on 8 December 2000. At the meeting, Fire Services Department suggested and parties concerned agreed that with effect from the date of this Circular Letter: -

- (a) Ceiling and flush sprinklers of a type approved for use by the Fire Services Department and installed in accordance with the manufacturer's instructions shall be generally accepted in light and ordinary hazards up to (and including) OH Group III, and
- (b) Recessed and concealed sprinklers with fast response heat sensing element of a type approved for use by the Fire Services Department and installed in accordance with the manufacturer's instructions shall be generally accepted in light and ordinary hazards up to (and including) OH Group III.

During the discussion, the professionals also raised the issue of enhanced requirement for curtain walled buildings, i.e., the sprinkler system installed in these buildings should be one grade in excess of that normally required for the accepted risk category. It has been decided that if such buildings are constructed to the standard stipulated in the Code of Practice for Fire Resisting Construction (FRC) Code 1996 the "one grade in excess" requirement will be dispensed with.

In due course, FSD will make amendments to paragraphs 4.18 and 4.19 of the Code of Practice on Minimum Fire Service Installations and Equipment. Authorized Persons are advised to confirm the FRC on the building plans so that Fire Officers responsible for plan processing could decide on the appropriate grade of sprinkler system.

Yours faithfully,

(LEE Chee-chung) for Director of Fire Services