A Guide to
Application of Letter of Compliance
for
Mechanical Ventilating Systems

Fire Services Department

(September 2023)

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1. Introduction

The purpose of this Guide is to provide general information to assist applicants in their applications for licences / alterations and renewal of licences. Although every attempt has been made to ensure that the information contained in this Guide is up-to-date, revision may be made from time to time.

To apply for a Licence, the applicant should submit an application to the respective Licensing Authority. The Licensing Authority will not issue any Licence or Permit until the applicant has complied with, among others, all requirements or recommendations given by the Director of Fire Services. (Detailed listing of the types of premises and the licensing authorities having jurisdiction can be found in Paragraph 3.) The proof of compliance with the fire safety requirements for mechanical ventilating system is a Letter of Compliance (LC) issued by the Director of Fire Services to the applicant direct and copied to the Licensing Authority.

2. Legislations Governing Ventilating System

Ventilating system is a mechanical system usually comprises of air blower and air duct. The system will maintain air movement in an indoor environment. Filter and/or electrostatic precipitator installed in the system will filter the air passing through them so as to improve the air quality. When an air duct passes through fire compartment walls/floors, fire dampers shall be fitted in the duct to curb the spread of fire and smoke through air duct system in case of fire.

The Building (Ventilating Systems) Regulations, Cap. 123J, Laws of Hong Kong apply to every ventilating system that embodies the use of ducting or trunking which passes through any wall and floor of the building in which the ventilation system is installed, from one compartment of such building to another. Whereas Ventilation of Scheduled Premises Regulation, Cap. 132CE, Laws of Hong Kong applies to ventilating system in Scheduled Premises in accordance with the Public Health and Municipal Services Ordinance, Cap. 132.

3. Type of Licence Requiring Letter of Compliance for Ventilating System

The different type of licences with respect to relevant Licensing Authority and Legislation requiring Letter of Compliance for Ventilating System by Ventilating Systems Group of Fire Services Department (FSD) are summarised in the table as in Appendix 1.

4. Procedures and Performance Targets for the Issue of Letter of Compliance for Ventilating System

(A) The workflows for licensing inspection of Ventilating System for Scheduled Premises, Non-Scheduled Premises and Provisional Licences showing the required procedures for obtaining Letter of Compliance for Ventilating System are attached in Appendix 2.

A sample of Letter of Compliance in English and Chinese is attached in Appendix 3.

(B) The performance targets for issuing Letter of Compliance for Scheduled Premises and Non-Scheduled Premises (Details refer to Appendix 1) are as follows:

Table 4.1 Performance Targets for Scheduled Premises and Non-Scheduled Premises (excluding Hotel / Guest House / Club)

Scheduled Premises and Non-Scheduled Premises (excluding Hotel / Guest House / Club)	**Target***
To conduct compliance inspection, upon receipt of report of completion and ventilation layout plan, within 10 working days for the 1st and 2nd inspection, and within 21 working days for the 3rd inspection and onwards.	90%
To issue result of compliance inspection / Letter of Compliance within 7 working days from the date of inspection.	90%

Table 4.2 Performance Targets for Non-Scheduled Premises (Hotel / Guest House / Club)

Non-Scheduled Premises (Hotel / Guest House / Club)	**Target***
To conduct compliance inspection within 21 working days upon receipt of report of compliance for ventilating system and referral of licence application from the Licensing Authority.	90%
To issue result of compliance inspection / Letter of Compliance within 7 working days from the date of inspection.	90%

* A target percentage of 90% means that the processing time of 90% of the applications shall meet the performance target.

5. Role of a Registered Specialist Contractor (Ventilation Works Category)

Only a Registered Specialist Contractor (Ventilation Works Category) [RSC(V)] under Buildings Department can issue an Annual Inspection Certificate for a Scheduled Premises under The Ventilation of Scheduled Premises Regulation, Cap. 132CE or Non-Scheduled Premises under The Building (Ventilating Systems) Regulations, Cap. 123J. The list of RSC(V) can be found at the following Buildings Department's web page:

https://www.bd.gov.hk/en/index.html

6. Essential Fire Safety Requirements in Mechanical Ventilating System

The applicant shall pay attention to the following points in the installation and maintenance of a ventilating system. Photographs showing illustrative examples of satisfactory and defective installation can be found in Appendix 4 for reference. The mechanical ventilating system installed in the premises shall comply with the following fire safety requirements (they are also applicable to Category D requirements for Provisional Licence) which can be downloaded at FSD Web page:

(1) Fire Safety Requirements of Ventilating System for Scheduled Premises

(2) Fire Safety Requirements of Ventilating System for Premises (other than Scheduled Premises)

(3) Fire Safety Requirements for Mechanical Ventilating Systems as stipulated in the FSD Circular Letter No. 2/2023

(A) Fire Damper

(1) Fire damper shall be provided between fire compartment walls or floors.

Fire damper is a vital device on stopping fire spread, it must be provided at openings where air ducts pass through fire compartment wall, floor or ceiling slab. In general, partition walls of kitchen, mechanical plant room and licenced area are usually fire compartment walls.

(2) Fire damper shall be installed in the correct orientation so that it will close properly when the fusible link melts during fire (Figure A1).

(3) The gap or cavity between fire damper and building element shall be properly sealed with fire resisting material (Figure A2).

(4) Fire damper shall be installed in the plane of compartment wall (Figure A3).

(5) Fire damper shall be fitted with FSD approved fusible link (Figure A4).

(6) Access panel shall be provided near fire damper for regular maintenance and annual inspection certification of the fire damper by the RSC(V).

(B) Installation Inside Mechanical Ventilating Systems

There shall be no combustible materials inside ductwork and mechanical ventilating system equipment. The following combustible materials shall be removed or isolated from the air stream:

(1) Combustible air filter or filter not acceptable to the Director of Fire Services (Figure B1).
(2) Plastic Pipe and Conduit (Figure B2 and B3). Electric wiring and control equipment shall be encapsulated in metallic conduits or casings.

(C) External Insulation

External insulation shall satisfy specified fire test standard.

External insulation made of polystyrene material does not comply with fire test standard BS 476: Part 7 (Figure C1). As polystyrene will emit toxic gases upon heating, the product has already been banned for all new installations since 1989. For existing installation with exposed polystyrene, it is recommended to either replace it by approved material, e.g. fiberglass or encapsulate it with cement plastered or metal cladding.

(D) Maintenance of Air Duct / Fire Damper

(1) Air ductwork shall be properly maintained; grease deposit and rusting of air duct are not allowed (Figure D1).

(2) Fire damper shall be properly maintained; rusty / jammed damper blades are not allowed (Figure D2).

(E) Fire and Smoke Control Installation at Protected area

Ventilation duct shall not pass through the protected area, e.g. fireman lift lobby or protected staircase.

Any service installations such as air ducts, chilled water pipes and associated accessories inside protected areas shall either be removed or encased in a fire resistant enclosure having an FRR equivalent to that of protected areas. If mechanical ventilation or air-conditioning equipment is installed inside protected areas, it shall be of a non-combustible construction and all ventilation openings, be they supply or exhaust (other than those direct to open air), shall be protected by fire and smoke dampers actuated by smoke detectors located in protected areas and adjoining compartments on air side which communicate with protected areas.

(F) Flexible Duct Installation Satisfying FSD Requirements

Flexible ducts are not permitted for use as main air distribution or to penetrate through fire compartments. Their length should not exceed 4 m. The flexible duct material and construction have to conform to the recognized fire performance and puncture test standard. Flexible duct made from tin foil is not acceptable.

(G) Devices Requiring FSD Approval

The following devices shall be of the FSD approved type :

(1) Fusible link of fire damper;
(2) Electrostatic filter or precipitator.

7. Points to Note before Making Inspection Appointment

(A) Requirements of submissions

The applicant is required to submit documents according to the following checklist before making inspection appointment.

Table 7.1 Submissions for Scheduled Premises and Non-Scheduled Premises (excluding Hotel)

Scheduled Premises and Non-Scheduled Premises (excluding Hotel)
1. Three (3) sets of ventilation / air – conditioning layout plans to the Licensing Authority
2. A completed form " Report of Completion on Ventilating System" (Vent/425) to the Ventilating Systems Group of FSD

Table 7.2 Submissions for Non-Scheduled Premises (Hotel)

Non-Scheduled Premises (Hotel)
1. Three (3) sets of ventilation / air – conditioning layout plans to the Licensing Authority
1. A completed form " Report of Compliance on Ventilating System" (Hotel – 02a) with attached ventilating system inspection checklist certified by a RSC(V) to the Ventilating Systems Group of FSD

Upon works completion of the ventilating system, the applicant is required to report to Ventilating Systems Group of FSD through electronic submission:

(1) For Scheduled and Non-scheduled Premises (other than Hotel)
(https://eform.cefs.gov.hk/form/fsd026/en/)

(2) For Hotel
(https://eform.cefs.gov.hk/form/fsd054/en/)

Or using the standard form no. Vent/425 which can be downloaded at FSD Web page.

(1) For Scheduled and Non-scheduled Premises (other than Hotel)
(https://eform.hkfsd.gov.hk/app/pdf/Vent425_E.pdf)

(2) For Hotel
(https://eform.hkfsd.gov.hk/app/pdf/HOTEL02_E.pdf)

(B) Ventilating System Drawings Must Tally with Site Installation

The Applicant shall ensure that the ventilating system drawings submitted through the Licensing Authority (e.g. the Food and Environmental Hygiene Department for food business) to the Ventilating Systems Group of FSD are correct and accurately showing the as-built configuration of the installation.

(C) FS 251 and Certification of Ventilating Systems

It is a myth that the certification of fire service installations by FS251 also covers the ventilating system. In fact, the certifications and inspections for fire service installations and ventilating systems are independent statutory requirements. The works have to be conducted by two separate categories of registered contractor. According to the pertinent statutory provisions, fire service installations (including the ventilation / air conditioning control system) and ventilation system have to be inspected and certified by Registered Fire Service Installation Contractors (RFSIC) under FSD and RSC(V) under Buildings Department respectively.

Please note that every damper, filter and precipitator in the ventilating system shall be inspected by a RSC(V) at intervals not exceeding 12 months.

(D) Proof of Compliance of Ventilating System during Licence Inspection

Before a licence can be issued, officers from FSD will visit the premises under application. Inspection will be conducted separately by the Licensing Offices and Ventilating Systems Group of FSD upon the receipt of report of works completion to confirm compliance with the fire safety requirements.

The RSC(V) / applicant's representative shall attend the ventilation inspection to demonstrate that the system operates as designed, especially the fire damper, electrostatic precipitator and smoke control facilities where appropriate. The RSC(V) / applicant should provide access means, e.g. ladder, working platform, etc. to facilitate the inspection. Lack of access facilities, RSC(V) not present, absence of access / inspection panels, etc. would hinder the inspection and delay the issuance of a letter of Compliance for Ventilating Systems.

(E) Ventilation Installation of Landlord and Other Licensed Premises

Each individual licensed premises will be normally treated as an independent fire compartment. As such, fire safety concern is not only on one's own ventilation installation. Ventilation ductworks provided by landlord as well as those owned by others but installed within the boundaries of one's licensed premises shall also be fitted with suitable fire safety measures. RSC(V)s / applicants are therefore reminded to check and ensure that fire dampers are installed in all air ducts at locations where they enter/leave the licensed area or alternatively, such ducts have to be enclosed by fire rated materials.

8. Enquiry

The contents in this Guide are for general information only. For further information or enquiry, please contact the Ventilating Systems Group, Fire Protection Engineering Compliance Division, Licensing & Certification Command of FSD.

Tel. no. : 2718 7567
Fax no. : 2382 2495
Email: fsvs@hkfsd.gov.hk

or visit the FSD web site: www.hkfsd.gov.hk

Appendix 1

Type of Licence requiring Letter of Compliance for Ventilating System

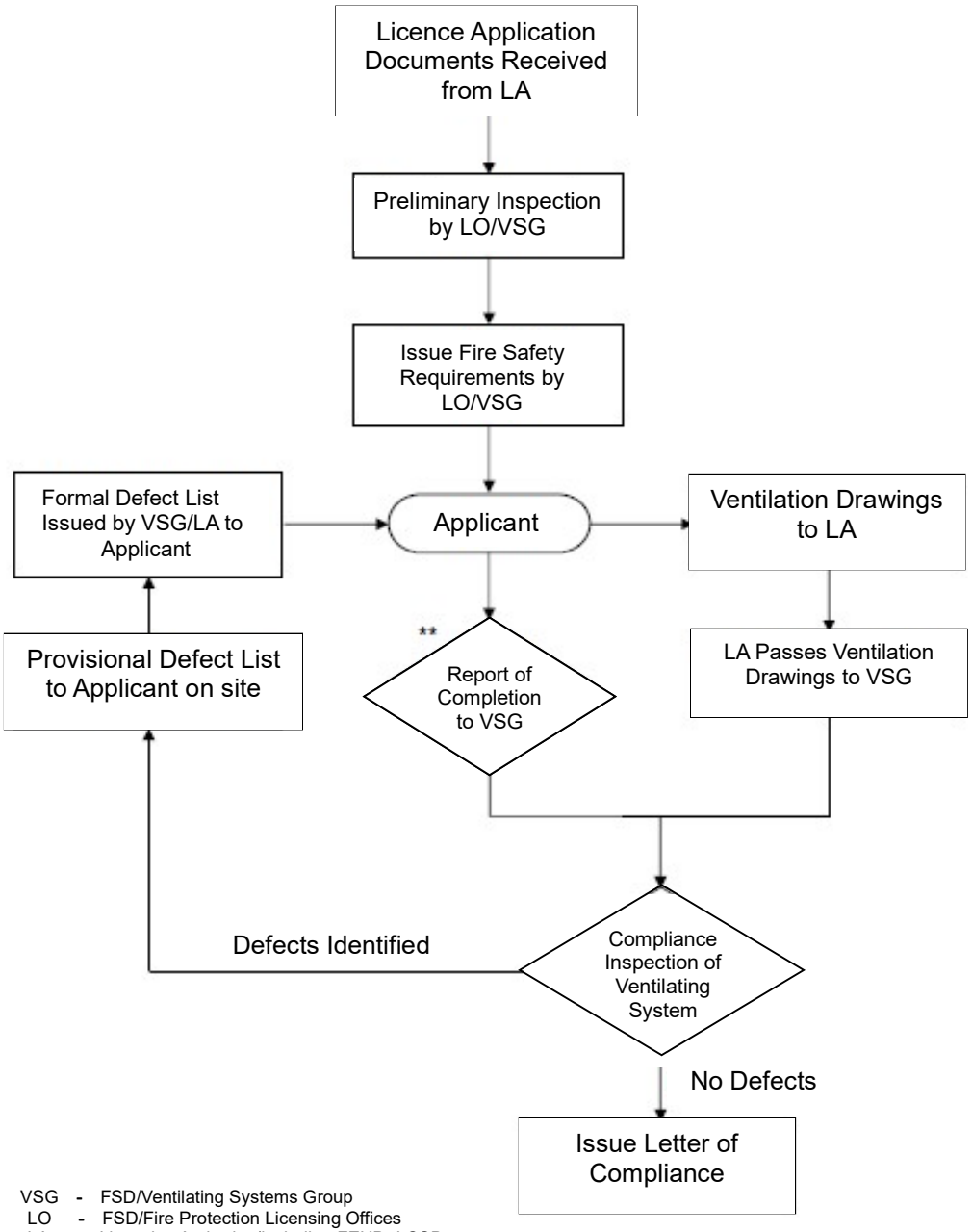
Type		Type of Licence	Licensing Authority
Scheduled Premises	1	Cinema	FEHD
	2	Dancing Establishment	FEHD
	3	Factory Canteen	FEHD
	4	Funeral Parlour	FEHD
	5	General Restaurant	FEHD
	6	Karaoke Establishment in Restaurant	FEHD
	7	Light Refreshment Restaurant	FEHD
	8	Theatre	FEHD
Non-scheduled Premises	9	Amusement Game Centre	HAD
	10	Bakery	FEHD
	11	Billiard Centre	LCSD
	12	Bowling Centre	LCSD
	13	Child Care Centre	SWD
			ED
	14	Club House	HAD
	15	Cold Store	FEHD
	16	DG Store	FSD
	17	E-Waste Disposal	EPD
	18	Food Factory	FEHD
	19	Fuel Tank	FSD
	20	Guest House	HAD
	21	Hotel	HAD
	22	Liquor	FEHD
	23	Massage Establishment	HKPF
			HAD
	24	Places of Public Entertainment	FEHD
	25	Private Columbaria	FEHD
	26	Public Skating Rink	LCSD
	27	Residential Care Home for the Elderly	SWD
	28	Residential Care Home for Persons with Disabilities	SWD

Abbreviations:

ED - Education Department
EPD - Environmental Protection Department
FEHD - Food and Environmental Hygiene Department
FSD - Fire Services Department
HAD - Home Affairs Department
HKPF - Hong Kong Police Force
LCSD - Leisure and Cultural Services Department
SWD - Social Welfare Department

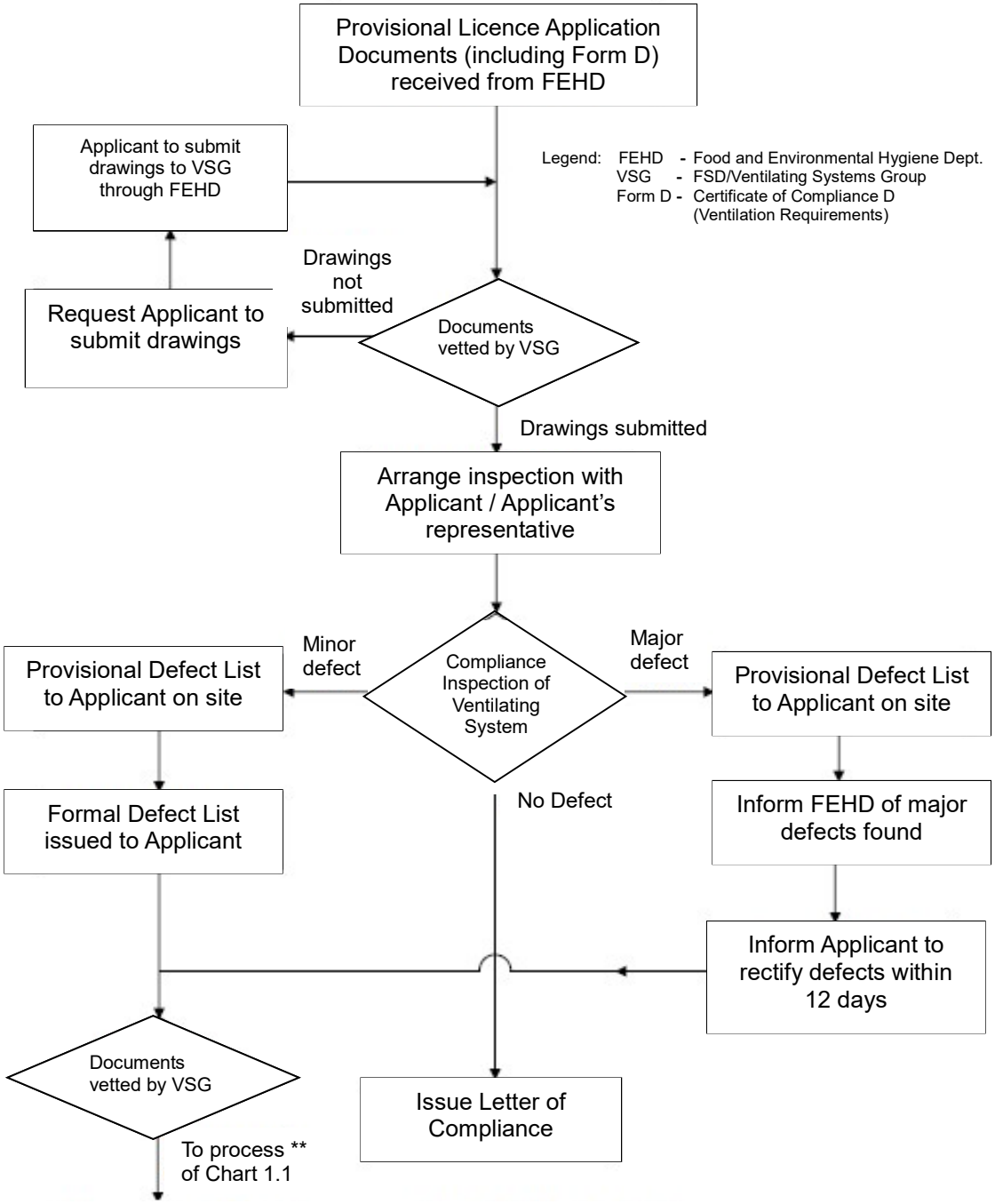
Appendix 2

CHART 1.1 Workflow for Licensing Inspection of Ventilating System Scheduled Premises & Non-Scheduled Premises



Legend:
- VSG - FSD/Ventilating Systems Group
- LO - FSD/Fire Protection Licensing Offices
- LA - Licensing Authority (including FEHD, LCSD, Police, SWD, ED, etc.)
- LC - Letter of Compliance
- ** - Continuation of workflow from Chart 1.2

CHART 1.2 Workflow for Licensing Inspection of Ventilating System (Provisional Licence)



(Subsequent workflow follows process ** as stated in Chart 1.1

Appendix 3

FS-224b (Rev. 09/2023)

消 防 處
牌 照 及 審 批 總 區
消 防 工 程 合 規 課
通 風 系 統 組
香港灣仔告士打道五號
稅務大樓三十五樓

FIRE SERVICES DEPARTMENT
LICENSING & CERTIFICATION COMMAND
Fire Protection Engineering Compliance Division
Ventilating Systems Group
35/F, Revenue Tower,
5 Gloucester Road, Wan Chai, Hong Kong

本處檔號 Our Ref.: FP 33/xxxxx
來函檔號 Your Ref.:
圖文傳真 Fax: (852) 2382 2495
電 話 Tel. No.: (852) 2718 7567
電 郵 E-mail: fsvs@hkfsd.gov.hk

By Registered Mail

xx xxx 20xx

Dear Sir/Madam,

LETTER OF COMPLIANCE
FOR VENTILATING SYSTEMS INSTALLED IN SCHEDULED PREMISES

Owner : XXX

Premises : XXX XXX

Address : XXX XXX
XXX XXX
XXX XXX

The ventilating system installed at the above premises was inspected on xx.xx.20xx by officers of this Department and at the time of inspection was found in compliance with our fire safety requirements for ventilating system.

You are hereby reminded that under Section 6 of the Ventilation of Scheduled Premises Regulation, Cap. 132CE, Laws of Hong Kong, there are certain obligations, in respect of the ventilating systems installed in scheduled premises, which require your attention. Relevant particulars and advice are given in the enclosed attachment.

Yours faithfully,

To: XXX
XXX XXX
XXX XXX
XXX XXX
XXX XXX

(XXX)
for Director of Fire Services

參 考 譯 本

FS-224b (Rev. 09/2023)

消 防 處
牌 照 及 審 批 總 區
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通 風 系 統 組
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Fire Protection Engineering Compliance Division
Ventilating Systems Group
35/F, Revenue Tower,
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本處檔號 Our Ref.: FP 33/xxxxx
來函檔號 Your Ref.:
圖文傳真 Fax: (852) 2382 2495
電 話 Tel. No.: (852) 2251 4141
電 郵 E-mail: fsvs@hkfsd.gov.hk

掛號信件

先生/女士：

裝設在附表所列處所內的通風系統
符 合 規 定 通 知 書

業主：_____
處所：_____
地址：_____

本處人員於二零 年 月 日，檢查裝設於上述處所內的通風系統，當時該系統乃符合本處發出的有關通風系統的消防安全規定。

香港法例第 132CE 章《附表所列處所通風設施規例》第六條亦訂明了一些關於業主須對附表所列處所通風系統承擔的責任，現隨函附上有關資料及建議。

消防處處長
(XXX 代行)

二零 年 月 日

Appendix 4

Examples of Satisfactory and Defective Installation in Ventilating System

Fire damper installed properly which closes upon breakage of fusible link during fire	Fire damper installed incorrectly (upside down) which does not close upon breakage of fusible link
	
√	X

Figure A1 Fire damper (Installation orientation)

Surrounding gaps and cavity of fire damper should be totally sealed up by fire resisting material	Gaps/cavities around fire damper not sealed
	
√	X

Figure A2 Fire damper (Sealing of surrounding gaps and cavities)

Installation of fire damper should be securely in plane of fire compartment wall	Fire damper installed not in plane of fire compartment wall (With exposed bush bearings)
	
√	X

Figure A3 Fire damper (Fixing of damper in fire compartment wall)

Fire damper linked up by FSD approved fusible link	Fusible link replaced by solid wire or fusible link not approved by FSD
	
√	X

Figure A4 Fire damper (Fusible Link)

Air filter should be made of non combustible material (e.g. metal filter)	Air pre-filter made of combustible material inside return air plenum
	
√	X

Figure B1 Combustible materials inside air stream (Combustible Air Filter)

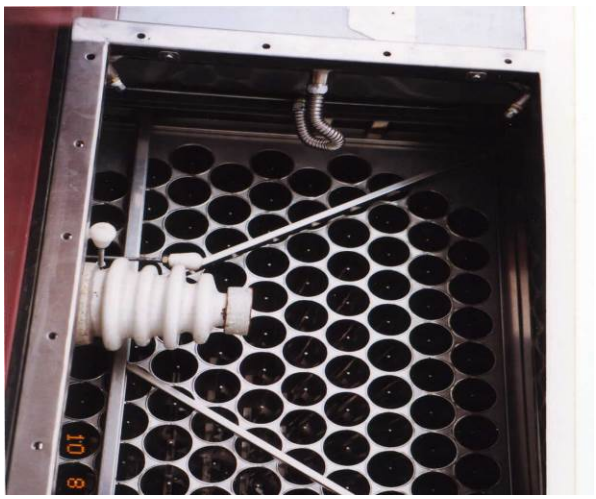
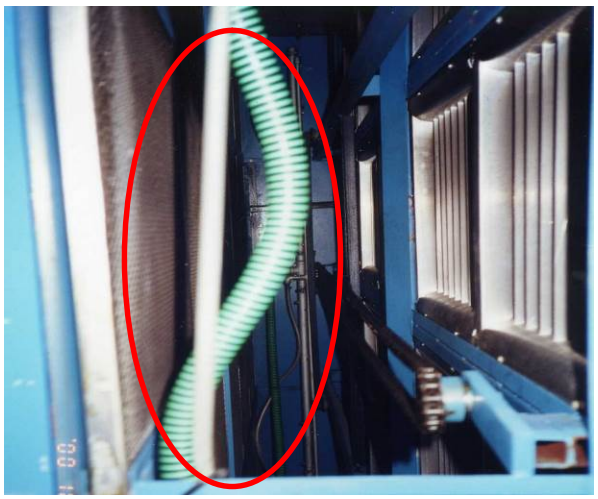
Combustible material should not be found inside precipitator	Combustible material (Plastic flexible conduit) found inside precipitator
	
√	X

Figure B2 Combustible materials inside air stream (Plastic Pipe & Conduit)

Metal air filter inside air stream	Combustible material (Plastic casing of ventilation fan / blower) found inside mechanical ventilating equipment
	
√	X

Figure B3 Combustible material inside air stream (Plastic Casing of Ventilation Fan / Blower)

External air duct insulation material should be complied with fire test standard BS476 Part 7 or equivalent	External air duct insulation made of polystyrene material not complied with fire test standard BS476 Part 7
	
√	X

Figure C1 External insulation of air duct (Not Satisfying Specified Fire Test Standard)

Air duct to be kept in clean condition	Air duct found to be in greasy & rusting conditions
	
√	X

Figure D1 Maintenance of air ductwork, (Grease Deposit Inside)

Keep all the fire damper in good and working condition	Fire damper in rusty and poor condition
	
√	X

Figure D2. Maintenance of fire damper, (Rusting Fire Damper Blades)