

**ACEHK Views
On Building Health and Hygiene**

ACEHK appreciates all the Government and staff efforts (particularly by doctors, nurses and supporting staff in Hospitals) against the spread of SARS in Hong Kong in the last 2 months.

ACEHK will be pleased to provide support to government in collaboration with institutional and professional bodies in Hong Kong for building a healthy and hygienic city in the long term.

ACEHK views on current building for health and hygiene related to SARS are as follows:-

1. Many recent published papers/articles on Amoy gardens from the Government and from many other institutional bodies do not have comprehensive data to prove that the current building drainage in Hong Kong is a significant problem or is one of the main sources of the spread of SARS.
2. In ACEHK view, the real issues are:
 - a) Mis-use of floor drains (U-traps in floor drains should always be filled with water and should not be in dry condition)
 - b) Illegal installation and modification of U-traps and building drainage installation
 - c) Building drainage installations are unattended and without proper maintenance
 - d) There are grey areas in the entire drainage installation approval process
 - Drainage plan submitted to BD by AP (But design qualification is not specified, i.e. design quality not guaranteed)
 - Drainage plan approval in BD by Building Surveyors (but not engineers or licensed professionals like RPE or equivalent)
 - Drainage installation by a licensed worker is not a statutory requirement (plumbing installation, however, must be by a licensed plumber as required by Water Authority)
 - Installation approval inspection by BD inspector (but not by an engineer or licensed professionals like RPE or equivalent)
 - Drainage installation periodic inspection (there is no compulsory requirement like lift or fire services annual inspection)
 - Code of Practice and Installation Manual (there is no drainage design or installation guide available. However, Drainage Services Department has a Sewerage Manual as a guideline, FSD has a COP on Fire Services installation, Water Authority has a handbook on plumbing installation)
 - e) Responsibility for drainage maintenance and upkeep throughout buildings is unclear, particularly the legal responsibility of owners. It should not be sufficient for owners to include a clause in a rental contract placing responsibility on tenants without subsequent inspection

Recommendation for Actions

A. Short Term Measures

1. Educate the public on floor drain U-traps proper usage and maintenance (fill them up with water at all times)
2. Prevent further illegal and modification of building drainage installation

B. Long Term Measures

1. The Floor drain technology should be replaced by Floor trap (floor drain with water-filled traps). Floor traps provision policy for new and existing buildings should be specified by Government.
2. All drainage installations should be carried out by Licensed Workers.
3. All modification and renovation work related to building drainage, should be approved and recorded by BD.
4. The responsibility and minimum qualification of the drainage system designer should be specified, whether Architect, Building Services engineer, licensed plumber or equivalent.
5. The B.D. building surveyor who reviews the plans should have adequate building drainage system background knowledge.
6. Standard design guidelines and Code of Practice on drainage installation should be promulgated.
7. All new building drainage installations should be properly tested to ensure absence of leaks.
8. Defective U-traps in all old building should be progressively replaced.
9. Periodic building drainage inspection for all new and old building should be enforced
10. There are pros and cons of both One pipe and Two Pipe Systems e.g. self-cleaning, installation practicality and space constraint issues. Government's view and statement are necessary.
11. There are pros and cons on internal pipe-duct and external drainage stacks installation. Government's view and statement are necessary.

In summary, ACEHK views are that, while there are different floor drain design and installation approaches in Hong Kong building drainage systems, they generally meet international standards.

ACEHK recommends HK Government prepare and publish a Code of Practice on building drainage installation as soon as possible so that the general public has something solid to follow. HK Government shall also establish policy and regulations on this issue and ACEHK is willing to support and provide technical assistance.