Buildings Department

Practice Note for Authorized Persons and Registered Structural Engineers

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Extractor Fans in Bathrooms and Lavatories in Domestic Buildings

Extractor fans are commonly fitted in the bathrooms and lavatories of domestic flats. According to an investigation finding, an over-capacity extractor fan, coupled with insufficient supply of fresh air to a bathroom, is thought to be one of the many factors that may have contributed to the spread of Severe Acute Respiratory Syndrome at Amoy Gardens.

- 2. Where mechanical ventilation in the form of extractor fan is provided in bathrooms and lavatories, care should be taken to ensure that plumbing seals are intact and operate according to the design intent. In addition, consideration should be given to the quality and quantity of air intake, air-flow path and fan capacity.
- 3. The Environmental Health Team of the World Health Organisation (WHO) has advised that the optimum volume for bathroom ventilation is 2 cfm/sq ft (10.2 l/s per sq. metre). WHO is of the view that a larger volume does not add much on the comfort side and has the hidden risk of building up negative pressure in the room.
- 4. Authorized persons are recommended to provide an opening to bathrooms and lavatories for air relief, such as an undercut to the door or an opening with louvre at the door or wall, in order to minimise the build-up of negative pressure in case an extractor fan is provided for ventilation. The airflow path created should avoid circuiting of the ingress and exhaust air.

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