

**ENVIRONMENTAL PROTECTION DEPARTMENT
PRACTICE NOTE FOR PROFESSIONAL PERSONS**

Impingement of Plumes from Boiler Chimneys on Adjacent Buildings

Chimneys serving boilers and furnaces can emit noxious and harmful sulphur dioxide, nitrogen oxides, sooty particles and other polluting matters. These emissions may impinge directly onto buildings located up to 200 metres, or more in some cases, from the chimney concerned and can give rise to severe nuisances or to adverse health effects. This factor must be taken into account when designing a new building that will be located near to existing chimneys or when installing a chimney on an existing building.

2. The design of chimneys can be a rather complex process which often requires the advice of an air pollution specialist. In situations where large installations are involved, computer modelling may be required to determine the appropriate height of the chimney. For small boilers and furnaces, such as those serving small industries or restaurants, the normal requirement is that the emissions should be dispersed upwards and that the height of the chimney should exceed, by at least 3 metres, the height of any nearby buildings and structures. Taller chimneys are required for larger installations. Reference can be made to the publication "Chimney Heights - Third Edition of the Clean Air Act Memorandum (1981)" published by the Department of the Environment, U.K., which can be obtained from Her Majesty's Stationery Office, London, directly or through local book suppliers.

3. Before a chimney, boiler or furnace is to be installed, prior approval from the Director of Environmental Protection is normally required under the Air Pollution Control (Furnaces, Ovens and Chimneys)(Installation and Alteration) Regulations. Booklets on how to make application are available from the Air Control Group of the Environmental Protection Department.

4. For situations where the construction of a tall chimney is not feasible and there are existing buildings or structures taller than the chimney within a range of 200 metres, the use of a relatively clean energy source, such as town gas, LPG or electricity, should be considered in order to reduce or eliminate the emission of harmful air pollutants. Otherwise, air quality assessment by an air pollution specialist should be carried out to evaluate the acceptability of the installation.

5. Where new tall buildings are planned near to existing chimneys or chimneys, it is likely that all or part of the new buildings will be exposed to very high level of air pollution. Whilst the design of the new buildings cannot eliminate the air pollution, there are practicable measures that can be adopted to minimize the effects of the air pollution on the occupants. Hence, whenever tall buildings are planned near to existing chimneys, a detailed air quality assessment should normally be carried out and advice sought from an air pollution specialist.

6. For further guidance, please contact the Air Policy Group of the Environmental Protection Department.

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Issued April 1992

Ref. : EP 81/C2/28 Annex I

Addendum to the ProPECC Practice Note PN 1/92

Original	Amendments
<p>Para 3, second sentence</p> <p>“Booklets on how to make application are available from the Air Control Group of Environmental Protection Department.”</p>	<p>The guide on Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations is available from Environmental Protection Department web site below,</p> <p>https://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/air_guidelines.html</p> <p>(Revised: February 2020)</p>