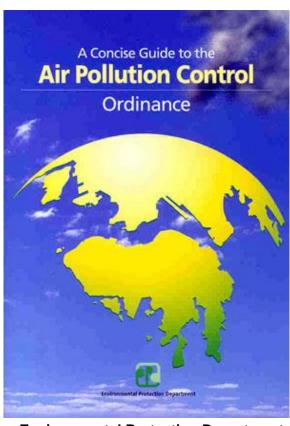
A Concise Guide to the Air Pollution Control Ordinance



Environmental Protection Department
Aug 2021

CONTENTS

Introduction

Air Quality Objectives (sections 7 and 8)

<u>Legal Notices for Controlling Air Pollution Emissions</u> (sections 10, 30 and 79)

Control of Emission from Specified Processes (sections 12 to 18)

<u>Cap and Trade Control on Power Plant (sections 26G to 26N)</u>

Control of Asbestos (sections 51 to 84)

Control of Vehicle Emissions

Control of Marine Emissions

Control of Non-road Mobile Machinery Emissions

Right of Appeal (section 31)

Offences and Penalties

Technical Memorandum and Code of Practice (sections 9 and 37)

Subsidiary Regulations (section 43)

Other Information

LIST OF ANNEXES

Annex 1 - List of Specified Processes

Annex 2 - List of Technical Memorandum and Code of Practice

Annex 3 - List of Subsidiary Regulations

Introduction

Air pollution is a great concern to our health and the environment of Hong Kong. To tackle this challenging and imperative task on cleaning our air, the Environmental Protection Department (EPD) has been enforcing the Air Pollution Control Ordinance (Cap. 311) (Ordinance) and its subsidiary regulations.

- 2. The Ordinance is a succession of the Clean Air Ordinance, the first air pollution control legislation enacted in 1959 for controlling fuel combustion emissions. Enacted in 1983, it extends the control to air pollution of non-combustion processes. The Ordinance expanded its scope to cover the control on vehicle emission in 1991 and asbestos in 1996, as well as to impose ban on the use of all asbestos containing materials in 2013. The Ordinance was amended in 2008 to tighten the control on power sector by stipulating emission caps through the issuance of a Technical Memorandum and introduce emissions trading as an alternative means for the power sector to achieve emission caps. Further amendments were made in 2013 and 2021 to progressively tighten the Air Quality Objectives (AQOs) of Hong Kong.
- 3. The Ordinance provides a statutory framework for establishing the AQOs and stipulating the anti-pollution requirements for air pollution sources. It enables the making of subsidiary regulations to deal with specific air pollution problems such as vehicular exhaust, construction dust, etc. It also empowers the EPD to impose a licensing control on major stationary emission sources, namely the Specified Processes, and issue legal notices to air pollution sources to demand remedial actions.
- 4. This guide is to provide the general public a brief introduction of the various provisions of this Ordinance. For easy reference, the relevant section numbers of the Ordinance are included immediately after each heading. It should, however, be noted that this guide is not to serve as a legal interpretation of the Ordinance. In case of doubt, the readers should read or download the Ordinance and its subsidiary regulations from the Hong Kong e-Legislation (HKeL) at https://www.elegislation.gov.hk/. You can also place an order for the Ordinance and its subsidiary regulations at the online Government Bookstore at:

https://www.isd.gov.hk/eng/bookorder.htm

Air Quality Objectives (sections 7 and 8)

5. The Ordinance sets out the AQOs of Hong Kong and stipulates a periodic review at least once in every five years. The EPD is tasked to achieve these objectives and to maintain the quality so achieved with a view to promoting the conservation and best use of air in the public interest.

Legal Notices for Controlling Air Pollution Emissions (sections 10, 30 and 79)

- 6. If any emission of air pollutants from a polluting process or activity is causing air pollution, the EPD may serve an Air Pollution Abatement Notice under section 10 of the Ordinance. The Notice requires the owner concerned to take remedial action to cut down or even eliminate the emission.
- 7. For air pollution due to the improper design, operation or maintenance of any equipment, section 30 of the Ordinance empowers EPD to require the owner of the premises concerned by Notice to take specified steps to rectify the deficiencies.
- 8. The Ordinance also enables EPD to issue an Asbestos Abatement Notice under section 79 of the Ordinance to require an immediate suspension of the poor operation of an asbestos removal activity or taking steps to prevent the release of asbestos.

Control of Emissions from Specified Processes (sections 12 to 18)

- 9. The major stationary air polluters such as power plants, incinerators, concrete batching plants, which are classified as Specified Processes in the Ordinance, are subject to more stringent emission control. A licence is required for the operation of these processes under Part IV of the Ordinance. **Annex** 1 is a list of the 31 types of Specified Processes scheduled under the Ordinance.
- 10. Application for licence should be made to EPD. The application is required to be publicly notified at the expense of the applicant in English and Chinese newspapers. A register keeping the particulars of the application is open to the public for inspection. Under the Ordinance, public members can, within 30 days from the date of public notification, object to the granting of the licence on the grounds that the concerned process will jeopardise the attainment of AQOs or the noxious or offensive emissions from the process will be prejudicial to health.
- 11. EPD may either grant or refuse to grant a licence subject to whether the applicant can fulfil the environmental standards to avoid causing air pollution. If EPD decides to grant the licence, a set of conditions will be imposed to ensure adequate prevention of discharge of air pollutant emissions. In case of refusal, EPD will give reasons for doing so to the applicant.
- 12. The validity period of the licence is to be determined by EPD and will not be less than 2 years under the Ordinance. The licence holder can apply to EPD for renewal, variation or transfer of the licence. Operating a Specified Process without a licence or contravening licence conditions is an offence under the Ordinance.

Cap and Trade Control on Power Plant (sections 26G to 26N)

13. Being one of the biggest local sources of air pollution, power plants are subject to the control of emission caps on three specified pollutants, namely, sulphur dioxide, nitrogen oxides and respirable suspended particulates. From 2010 onwards, power companies are allowed to meet the emission caps by the market-based tool of emissions trading. Emission allowances of the 3 major pollutants are allocated to each power plant and are transferable. Each emission allowance entitles one tonne of emission. By the end of an emission year, the owner of the power plant must ensure that their actual emission of each pollutant shall not be more than the emission allowance of that pollutant in hand.

Control of Asbestos (sections 51 to 84)

- 14. Apart from the power of issuing Asbestos Abatement Notice to abate asbestos emissions, the Ordinance also provides a registration system to control asbestos work. Asbestos consultants, contractors, supervisors and laboratories must register if they want to practise in the asbestos abatement profession. The registers of registered asbestos consultants, contractors, supervisors and laboratories are kept by EPD and open to the public for inspection.
- 15. Before carrying out any asbestos removal work, the owner of the premises concerned is required to submit an asbestos investigation report and abatement plan prepared by registered asbestos consultant to EPD at least 28 days in advance. The owner is also required to notify EPD of the date of commencement of such work at least 28 days in advance. All asbestos removal work must be carried out and supervised by registered personnel in compliance with prescribed standards.
- 16. The Ordinance also <u>bans</u> the import, transhipment, supply and use of all forms of asbestos and asbestos containing material in Hong Kong unless it is goods in transit, registered proprietary Chinese medicine, use of asbestos in industrial undertakings or having <u>exemption</u> under the Ordinance.

Control of Vehicle Emissions



- 17. Exhaust emissions from motor vehicles are the major sources of roadside air pollution in Hong Kong. Under the Ordinance, there are 4 sets of subsidiary regulations to control vehicle emissions.
- 18. The Air Pollution Control (Vehicle Design Standards) (Emission) Regulations require newly registered motor vehicles to comply with the prescribed emission standards of the United States of

America, the European Union or Japan. A vehicle cannot obtain its registration from the Transport Department if it fails to comply with the said emission standards.

- 19. The Air Pollution Control (Air Pollutant Emission) (Controlled Vehicles) Regulation stipulates the retirement deadlines for Euro IV and pre-Euro IV diesel commercial vehicles and limits the service life of diesel commercial vehicles first registered on or after 1 February 2014 to 15 years.
- 20. The Air Pollution Control (Motor Vehicle Fuel) Regulation stipulates the specifications of motor vehicle fuel and prohibits the supply, distribution and sale of motor vehicle fuels that do not meet the specifications.
- 21. The Air Pollution Control (Emission Reduction Devices for Vehicles) Regulation requires all light diesel vehicles up to 4 tonnes first registered on or before 31 March 1995 to be installed with approved emission reduction devices. Vehicles failing to meet this requirement may not have their vehicle licences renewed or may have their vehicle licences cancelled. Besides, starting from 1 April 2007, the requirement is extended to all diesel vehicles first registered on or before 31 March 1995.
- 22. Apart from the Ordinance, the Government also controls vehicle emissions through other legislation, e.g. the Motor Vehicle Idling (Fixed Penalty) Ordinance (Cap. 611) and Road Traffic Ordinance (Cap. 374).

Control of Marine Emissions

23. The emission from marine vessel exhaust has become a major source of air pollution in Hong Kong. The Air Pollution Control (Marine Light Diesel) Regulation was introduced in April 2014 to cap the sulphur content of locally supplied marine light diesel at 0.05%. The Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation was put in force on 1 July 2015 requiring ocean going vessels (OGVs) to use cleaner fuel (fuel with sulphur content not exceeding 0.5%) while at berth. Hong Kong is the first port in Asia to mandate such a fuel switch requirement for OGVs at berth. The Government has been collaborating with the Mainland to reduce emissions from vessels, including the joint efforts to take forward the implementation of a Marine Emission Control Area which covers the Pearl River Delta coastal waters. In order to enhance the regional collaboration and further improve air quality, the Air Pollution Control (Fuel for Vessels) Regulation took effect on 1 January 2019, requiring all vessels to use compliant fuel (including fuel with sulphur content not exceeding 0.5% or liquefied natural gas) within Hong Kong waters, irrespective of whether they are sailing or berthing.

Control of Non-road Mobile Machinery Emissions

24. The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation came into effect on 1 June 2015 to control the emission of non-road mobile machinery (NRMM) such as excavators, air compressors, mobile generators and non-road vehicles etc. Starting from 1 December 2015, only approved or exempted NRMM with proper labels are allowed to be used in specified activities and locations such as construction sites, container terminals and backup facilities, restricted areas of the airport, designated waste disposal facilities, etc. Starting from 1 January 2019, the Air Pollution Control (Non-road Mobile Machinery) (Emission) (Amendment) Regulation 2018 came into effect, tightening in phases the statutory emission standards for newly approved non-road vehicles in line with the latest emission standards for road vehicles.

Right of Appeal (section 31)

- 25. The Ordinance provides for a statutory right of appeal against certain decisions, requirements or specifications of EPD. Any person who is aggrieved by the decision, requirement or specification of EPD may appeal to the Appeal Board within 21 days after the receipt of such decision, requirement or specification.
- 26. The Appeal Board is constituted independent of EPD and chaired by a person who is qualified for appointment as a District Judge. The Appeal Board may confirm, reverse or vary the decision, requirement or specification under appeal. It may also make an award for the costs involved in the appeal as appropriate.

Offence and Penalties

27. Any person or company who commits an offence under the Ordinance shall be liable to prosecution. In addition, under section 47A of the Ordinance, the company's director, manager, secretary or other person concerned in the management is also personally liable to prosecution for the offence committed by that company if the offence is committed owing to his consent or connivance, or neglect or omission.



28. The maximum fines for convictions under the Ordinance range from \$100,000 to \$500,000 and 6 to 12 months' imprisonment. For details of the penalties, please refer to the Ordinance.

Technical Memorandum and Code of Practice (sections 9 and 37)

29. The Ordinance allows government to issue Technical Memorandum in which technical references

such as principles, procedures, guidelines, standards and limits are set out for the purposes of

prediction, measurement, determination and assessment of air pollution. There are a total of 10

Technical Memoranda in force as shown in Annex 2.

30. For the purpose of encouraging reduction and the better control of air pollution, government may

issue general advice in the form of Codes of Practice. Any failure to observe the Codes of Practice may,

in any proceedings, be relied upon by any party to establish or to negative any liability which is in

question. A total of 4 Codes of Practice have been issued as given in Annex 2.

Subsidiary Regulations (section 43)

31. Section 43 of the Ordinance enables the making of regulations for more specific and effective

control of air pollution, such as dark smoke from chimneys, dust from construction sites, emission

standards for vehicle engines, etc. There are a total of 19 subsidiary regulations in force under the

Ordinance. A list of these regulations and the description of control is given in Annex 3.

Other Information

32. For enquiry, please contact EPD at:

Telephone: 2838 3111

E-mail: enquiry@epd.gov.hk

Website: http://www.epd.gov.hk

Annex 1 List of Specified Processes

Extracted from Schedule 1 of the Air Pollution Control Ordinance

1.	Acrylates Works	2.	Aluminium Works
3.	Cement Works	4.	Ceramic Works
5.	Chlorine Works	6.	Copper Works
7.	Electricity Works	8.	Gas works
9.	Iron and Steel Works	10.	Metal Recovery Works
11.	Mineral Works	12.	Incinerators
13.	Petrochemical Works	14.	Sulphuric Acid Works
15.	Tar and Bitumen Works	16.	Frit Works
17.	Lead Works	18.	Amines Works
19.	Asbestos Works	20.	Chemical Incineration Works
21.	Hydrochloric Acid Works	22.	Hydrogen Cyanide Works
23.	Sulphide Works	24.	Pathological Waste Incinerators
25.	Organic Chemical Works	26.	Petroleum Works
27.	Zinc Galvanising Works	28.	Rendering Works
29.	Non-ferrous Metallurgical Works	30.	Glass Works
31.	Paint Works		

For details of the definitions of the above works, please refer to Schedule 1 of the Air Pollution Control Ordinance.

Annex 2 List of Technical Memorandum and Code of Practice

Technical Memorandum

- 1. Technical Memorandum for Issuing Air Pollution Abatement Notices to Control Air Pollution from Stationary Polluting Processes
- 2. Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 3. Second Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences and
 - Resolution of the Legislative Council on the Second Technical Memorandum
- 4. Third Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 5. Fourth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified
- 6. Fifth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 7. Sixth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 8. Seventh Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 9. Eighth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences
- 10. Ninth Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences

Code of Practice

- 1. Asbestos Work Using Full Containment or Mini Containment Method
- 2. Asbestos Work Using Glove Bag Method
- 3. Preparation of Asbestos Investigation Report, Asbestos Management Plan and Asbestos Abatement Plan
- 4. Safe Handling of Low Risk Asbestos Containing Material

Annex 3 List of Subsidiary Regulations

- 1. <u>Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations</u>
 Requires prior approval to ensure suitable design for the installation and alteration of furnaces, ovens and chimneys.
- 2. <u>Air Pollution Control (Dust and Grit Emission) Regulations</u>
 Stipulates the emission standards, assessment procedures and requirements for particulate emissions from stationary combustion sources.
- 3. <u>Air Pollution Control (Smoke) Regulations</u>

 Restricts emissions of dark smoke from stationary combustion sources.
- Air Pollution Control (Appeal Board) Regulations
 Stipulates the procedures and run down of an appeal.
- Air Pollution Control (Specified Processes) Regulations
 Provides the administrative framework for the licensing of Specified Processes.
- 6. <u>Air Pollution Control (Fuel Restriction) Regulations</u>
 Prohibits the use of high sulphur content solid and liquid fuel for commercial and industrial appliances. (In Shatin, only gaseous fuel is allowed.)
- 7. <u>Air Pollution Control (Vehicle Design Standards) (Emission) Regulations</u>
 Sets out the emission standards for newly registered vehicles.
- 8. <u>Air Pollution Control (Motor Vehicle Fuel) Regulation</u>
 Sets out the specifications of liquid motor vehicle fuel to be used in motor vehicles, prohibits the sale of leaded petrol and regulates the quality of motor vehicle biodiesel.
- 9. <u>Air Pollution Control (Open Burning) Regulation</u>
 Prohibits open burning of construction wastes, tyres and cables for metal salvage, and controls other open burning activities by permit system.
- 10. <u>Air Pollution Control (Asbestos) (Administration) Regulation</u>

 Provides for the qualifications and fees for registration of asbestos consultants, contractors, supervisors and laboratories.
- 11. Air Pollution Control (Construction Dust) Regulation

 Requires contractor to take dust reduction measures when construction work is being carried out.
- 12. Air Pollution Control (Petrol Filling Stations) (Vapour Recovery) Regulation

 Requires petrol dispensers and petrol storage tanks of petrol filling stations and petrol delivery vehicles to be equipped with effective vapour recovery systems and to observe good practice

during petrol unloading and vehicle refuelling.

- Air Pollution Control (Dry-Cleaning Machines) (Vapour Recovery) Regulation

 Requires dry-cleaning machines using perchloroethylene (PCE) as a dry-cleaning agent to be equipped with a vapour recovery system and to meet the stipulated emission standard.
- 14. <u>Air Pollution Control (Emission Reduction Devices for Vehicles) Regulation</u>

 Requires pre-Euro diesel vehicles to be retrofitted with approved emission reduction devices for licence renewal.
- Air Pollution Control (Volatile Organic Compounds) Regulation

 Imposes limits in phases on the Volatile Organic Compounds (VOC) content of architectural paints, vehicle refinishing paints, vessel and pleasure craft paints, adhesives, sealants, printing inks, fountain solutions, printing machine cleaning agents and six selected consumer products air fresheners, hairsprays, multi-purpose lubricants, floor wax strippers, insecticides and insect repellents, and requires emission reduction devices to be installed on lithographic heatset web printing machines.
- 16. <u>Air Pollution Control (Air Pollutant Emission) (Controlled Vehicles) Regulation</u>
 Stipulates the retirement deadlines for Euro IV and pre-Euro IV diesel commercial vehicles and limits the service life of diesel commercial vehicles first registered on or after 1 February 2014 to 15 years.
- 17. <u>Air Pollution Control (Marine Light Diesel) Regulation</u>
 Restricts the sulphur content of locally supplied marine light diesel.
- 18. <u>Air Pollution Control (Fuel for Vessels) Regulation</u>
 Prohibits vessels from using non-compliant fuel within the waters of Hong Kong.
- 19. Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation

 Stipulates only approved or exempted NRMMs with a proper label are allowed to be used in specified activities and locations including construction sites, container terminals and backup facilities, restricted areas of the airport, designated waste disposal facilities and specified processes.