

# APCO - 101

## A Review of the Air Pollution Control Ordinance

February 2009



# Hong Kong's Air Pollution Control Ordinance

## Introduction

The *Air Pollution Control Ordinance* (APCO)<sup>1</sup> – which came into force in 1983 – is the primary piece of legislation that deals with the management of air pollution in Hong Kong.<sup>2</sup> This paper provides an overview of the Ordinance, in order to stimulate discussion in four areas on its effectiveness as an instrument for dealing with air pollution in Hong Kong:

### **1. Is public health currently one of the overarching interests of the Ordinance?**

Arguably yes, by reading the Long Title of the Ordinance together with the definition of 'air pollution' in Section 2, a court is likely to find that abating, prohibiting and controlling emissions that are prejudicial to health, is one of the main objectives of the Ordinance.

### **2. Is the health objective integrated into the operational aspects of the Ordinance?**

Not consistently. Controlling emissions that are prejudicial to health is a consideration in some, but not all, of the operational processes for managing air quality. In particular, prejudice to health is not considered in establishing Air Control Zones and Air Quality Objectives.

### **3. Is the Ordinance's process adequate for setting air quality objectives?**

No, it is explicitly subjective and could be made more robust by explicit reference in the Ordinance to internationally respected standards and research and the Department of Health, which currently, and oddly, has no remit to be involved.

### **4. Do the Ordinance's procedures facilitate proper management of air pollution?**

Not adequately. The powers provided by the Ordinance to the Government to manage air pollution are limited. More importantly, greater attention could be given to the elements of the classic management cycle of continuous improvement, such as:

- Monitoring,
- Review and amendment,
- Timelines and accountability for performance, and
- Transparency.

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<sup>1</sup> Cap. 311

<sup>2</sup> A summary of Parts and Sections of the APCO can be found on the last page of this paper.

## Scope of this paper

This review of the provisions of the *Air Pollution Control Ordinance*, is for interested parties, who may not be familiar with the complexities of legal language. A full section-by-section commentary on the APCO, written by Antonio da Roza, will be published by LexisNexis as part of the Annotated Ordinances series in March 2009.

Apart from some observations on the UK approach to pollution and the need to bring greenhouse gas emissions into the realm of pollution reduction, it is beyond the scope of this paper to consider comprehensive reform of the law – whether the whole legislative approach to pollution in Hong Kong should be rebuilt with a public health foundation – though this is well overdue.

This review is limited to the provisions of the Ordinance that deal with outdoor air pollution. The APCO has no express reference to indoor air pollution or its control, and this review does not cover the asbestos control regime, which is also contained in the APCO.

### **Box 1: Important terms relating to the APCO**

<b>Advisory Council for the Environment</b>	A statutory council that advises the Hong Kong Government on measures to combat pollution and sustain the environment.
<b>AQO</b>	Air Quality Objectives, established by the Secretary for the Environment
<b>ACZ</b>	Air Control Zones, established by the Chief Executive
<b>APCO</b>	Air Pollution Control Ordinance
<b>EPD</b>	Environmental Protection Department, whose director is responsible for administering the APCO (the administering agency is referred to in the APCO as 'The Authority')

## History of air pollution laws in Hong Kong

### Historically not health-based

Box 2 summarizes the development of air pollution legislation in Hong Kong. With the exception of some controls on smoke under the *Public Health (Sanitation) Ordinance* of 1935, the historical context for air pollution management was not so much public health but visibility; specifically, to ensure that pilots were able to navigate aircraft safely in Hong Kong. The current APCO is a vestige of that policy.

Enforcement is predicated on a nuisance-based approach<sup>3</sup> rather than the public health focus that is common to almost all other jurisdictions.

#### **Box 2: Timeline of legislative developments on air pollution in Hong Kong**

<b>1935</b>	<i>Public Health (Sanitation) Ordinance</i> – a single provision relevant to smoke control
<b>1955</b>	<i>Air Navigation (Abatement of Smoke Nuisances) Ordinance</i> – adopts a nuisance-based approach
<b>1960</b>	<i>Clean Air Ordinance</i> – perpetuates the nuisance-based approach
<b>1983</b>	<i>Air Pollution Control Ordinance (APCO)</i> – perpetuates the nuisance-based approach
<b>1987</b>	Air Quality Objectives formulated
<b>1991</b>	APCO amended to include motor vehicles and unleaded petrol
<b>1993</b>	APCO amended to include asbestos, use of technical memoranda, licensing and appeal, and penalty revisions. Definition of air pollution amended to include health effects.
<b>2008</b>	APCO amended to include regulation of sulphur dioxide, nitrogen oxides and particulates from electricity works

### Health is the major concern in other jurisdictions

Worldwide research into the adverse health effects of air pollution over the last 50 years has firmly aligned air pollution control with the protection of public health. In Hong Kong, however, the health element was grafted onto legislation that was not directed at protecting public health, but only addressing air pollution if it became a ‘nuisance’.

The legacy of this history has been a reactionary and fragmented approach to problems as they emerge. The piecemeal fashion in which the amendments are made has led to certain inconsistencies and weaknesses in the Ordinance.

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<sup>3</sup> A ‘nuisance-based’ approach means that air pollution is only addressed when it causes immediate discomfort that may or may not be health-related. Nuisance-based legislation tends to be reactive – it is only triggered by a complaint or objection. It does not take account of the diffuse, incremental, and long-term nature of damage to health from air pollution that a health-based approach is better placed to deal with.

## 1. Is public health currently one of the overarching interests of the Ordinance?

The intent of the Ordinance is found in the Long Title (emphasis added):

To make provision for abating, prohibiting and controlling *pollution of the atmosphere* and for matters connected therewith.

'Pollution of the atmosphere' is not defined by the Ordinance; however, a similar term – 'air pollution' – is defined in s. 2 (again emphasis added):

An emission of air pollutant which either alone or with another emission of air pollutant –

- (a) *Is prejudicial to health;*
- (b) Is a nuisance;
- (c) Imperils or is likely to imperil the safety of or otherwise interferes with the normal operation of aircraft; or
- (d) Is determined to be air pollution under a technical memorandum.

Whilst the terms 'pollution of the atmosphere' and 'air pollution' are not identical, it is arguable the Courts may consider them equivalent for the purposes of interpreting the Ordinance.

Reading the two together gives the intent (amongst other things):

**To abate, prohibit and control the emission of pollutants that are prejudicial to health.**

This then becomes one of the objectives of the Ordinance but there may still be issues to consider (see below).

However, the Ordinance is unclear in its purpose. The Department of Health currently plays no direct or advisory role in setting air quality standards. The responsible department, the Environmental Protection Department has expertise in air pollution control, but not in public health.

## 2. Is the health objective integrated into the operational aspects of the Ordinance?

Ideally, all of the operational provisions, processes and procedures of the Ordinance should be directed at effecting the purpose of the Ordinance – i.e. to deal with emissions prejudicial to health.

However, given that prejudice to health was not the original mischief the law was intended to address, and was tacked onto the pre-existing legislation, it is hardly surprising the health emphasis is not as explicitly or thoroughly integrated in the operational aspects of the Ordinance as it could be.

### Legislative gaps

The most important areas where the procedures under the Ordinance are not invariably and explicitly linked to the intent in the Long Title and definition of air pollution are as follows:

- The Chief Executive establishing Air Control Zones (ACZs).<sup>4</sup>
- The Secretary for the Environment establishing Air Quality Objectives (AQOs).<sup>5</sup>
- The Secretary for the Environment issuing technical memoranda relating to the development of AQOs.<sup>6</sup>

That leaves the question of whether, despite the absence of explicit reference, the Courts would find that, implicitly, the health objective of the Ordinance should inform all other processes and procedures. This is a more ambiguous issue that has never been tested in the Courts.

### Can the Government ignore health effects?

On a strict reading, there is no obligation on the various statutory officers to take account of the prejudice to health in establishing and implementing the procedures outlined above. However, recent case law raises doubts about the extent to which statutory officers can allow the procedures to remain untouched by health concerns. The judge – Mr Justice Hartmann – in the 2007 case of *Clean Air Foundation Ltd & Another v The Government of the HKSAR*<sup>7</sup> accepted that it is at least arguable that the right to life under the Basic Law<sup>8</sup> and the Bill of Rights<sup>9</sup> imposes a duty on the Government to combat air pollution, and more importantly, the International Covenant on Economic, Social and Cultural Rights requires the progressive achievement of the highest attainable standard of health.<sup>10</sup>

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<sup>4</sup> s. 6(1) (all references to the APCO unless stated)

<sup>5</sup> s. 7(1)

<sup>6</sup> ss. 2(d) and 7(1A). Note however that technical memoranda in other parts of the Ordinance are linked specifically to the health objective.

<sup>7</sup> Unreported, HCAL 35/2007

<sup>8</sup> Article 28

<sup>9</sup> Article 2

<sup>10</sup> Article 12

### **3. Is the Ordinance's process adequate for setting air quality objectives?**

Currently, the Secretary for the Environment implements the APCO by setting AQOs. Logically, the AQOs should protect health (although the Ordinance does not explicitly make this link).

#### **Subjective process**

The criterion for determining the AQOs is '*the opinion of the Secretary ... in order to promote the conservation and best use of air ... in the public interest*'.<sup>11</sup> This is a vague criterion that leaves considerable room for the development of AQOs in a manner that is inconsistent with the health purpose of the Ordinance. A more explicit link between the Secretary's discretion and the objective to prevent prejudice to health would serve to facilitate a more scientific process in the development of AQOs.

#### **External scrutiny**

In order to ensure that the health purpose is fulfilled as far as possible, the opinion of the Secretary for the Environment in setting AQOs could be moderated by objective external scrutiny, such as:

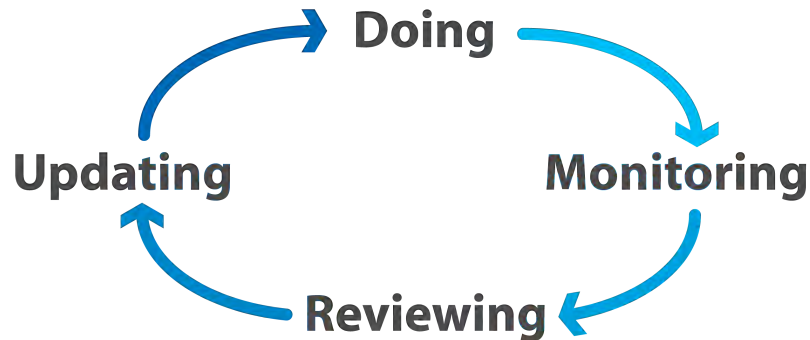
- The most recent guidelines issued by the World Health Organization;
- The most recent research on air pollution science and health;
- The advice of the Advisory Council on Environment; and
- The advice of the Department of Health

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<sup>11</sup> s. 7(2) – emphasis added.

#### 4. Do the Ordinance's procedures facilitate proper air quality management?

'Management' implies a cycle of continuous improvement – doing, monitoring, reviewing, and updating on the basis of review – as well as mechanisms to incentivize achievement of the management objectives (or penalize failure to achieve them).



In this instance 'doing' refers to devising and implementing pollution control measures.

##### **Missing tools of management**

Some of these critical management elements are missing from the Ordinance. For example:

- (a) Monitoring and publishing of relevant data, including health impacts,
- (b) Regular review and updating of the Ordinance and its procedures (including the AQOs), and
- (c) Effective drivers to ensure achievement of the health objective, accountability and transparency.

These weaknesses may limit the ability of the EPD to better manage air quality in Hong Kong.

##### **(a) No legal requirement for monitoring**

The purpose of monitoring is to determine whether the health and other objectives are being met – 'what is not measured is not managed'. However, there is no provision in the Ordinance by which the Government is required to monitor air pollution in Hong Kong although the EPD carries out extensive monitoring through a network of air pollution monitoring stations, and makes the data publicly available via its website. What has been lacking in Hong Kong is continuous monitoring of the health impacts of air pollution by the authorities. The question to consider is whether there should be a legal requirement for the Government to monitor both air pollution and its health impacts, and whether the public should have a statutory 'right to know'.



## **(b) No legal requirement for review and update**

Monitoring and review go hand-in-hand as a part of the management cycle. Although the Secretary for the Environment is *required to establish* AQOs<sup>12</sup> and although the Secretary *has the power* to amend them from time to time,<sup>13</sup> on a strict reading of Section 7, there is no *requirement* to review or update the AQOs and no timeframe for review.<sup>14</sup>

### **Outdated provisions**

As a consequence of the weak review provisions, the AQOs are outdated. They have not been amended since their establishment in 1987, during which time the links between public health and air quality have become much better understood. The Government is however currently conducting a review and this is obviously an important time also raise the inadequacies of the APCO. Similarly, fines for breach of licence conditions have not been updated since 1993 and fees for licences since 2000.

## **(c) Accountability, transparency and drivers for achievement**

### **No requirement to achieve AQOs**

Under the APCO, it is not *mandatory* for the Government to set Air Control Zones or to achieve the AQOs. The Secretary for Environment may give directions to the EPD about how the objectives may be achieved, but is not made responsible for their achievement.<sup>15</sup> There are no time limits for achievement – instead, they are to be achieved ‘as soon as is reasonably practicable’, an undefined period of time.<sup>16</sup>

### **No rights of private action**

There is no provision for private rights of action against licensees who do not comply with the Ordinance, nor are there any civil rights to complement the criminal liability attached to breach of licence conditions<sup>17</sup>.

### **Short time period for complaints**

There is a limited time period for bringing prosecutions against a continuing offence – 6 months.<sup>18</sup> Why there is a need to limit the time for bringing a prosecution is unclear and reduces the deterrent effect of the criminal provisions.

### **No publication of directions**

The Secretary for Environment is empowered – with no requirement to consult with the Advisory Council on the Environment – to give the EPD directions in respect of how it should exercise its powers under the Ordinance.<sup>19</sup> The Secretary is not required to make public any such directions, which contrasts with other sections in the APCO, whereby the Secretary is required to publish details of methods and standards he approves.<sup>20</sup>

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<sup>12</sup> s. 7(1)

<sup>13</sup> s. 7(3)

<sup>14</sup> However, see Justice Hartmann’s comments in *Clean Air Foundation Ltd. & Another v The Government of the HKSAR* (unrep. HCAL 35/2007) where he considered this section makes ‘direct provision for the Secretary for the Environment, in consultation with a statutory body, not only to introduce air quality objectives but to update them whenever necessary’.

<sup>15</sup> s. 8(3)

<sup>16</sup> s. 8(2)

<sup>17</sup> A private right of action, such as that found in s. 46 of the *Securities and Futures Ordinance*, could enhance the deterrent effect of the APCO and facilitate its enforcement. In other jurisdictions, legal action in relation to air pollution tends to proceed more by private law suits than judicial review against the government.

<sup>18</sup> s. 46

<sup>19</sup> s. 8(3)

<sup>20</sup> e.g. s. 4

## International Developments

Although it is beyond the scope of this paper to discuss the broader question of wide-ranging reform of air quality legislation, two international developments worth mentioning are:

### (a) The UK's consolidated approach to pollution management

When it came into effect in 1983, the APCO marked a divergence from air pollution control in the UK, which adopted a consolidated approach to all forms of pollution in its *Control of Pollution Act (1974)*, and which continued under the *Environment Act (1995)*, whilst in Hong Kong, the pollution law is split over a number of disparate pieces of legislation.<sup>21</sup> Consequently, there is potential overlap between the APCO and other ordinances<sup>22</sup> on environmental issues and it is unclear which ordinance takes precedence in the event of conflict.<sup>23</sup> This lack of clarity strengthens the argument for a consolidated legislative approach to pollution, as found in the UK.

### (b) Climate change – an emerging pollution issue

As the momentum for action on climate change accelerates, greenhouse gases are increasingly being seen as pollutants that must be brought into a policy framework of pollution management. As China is a signatory to the United Nations Framework Convention on Climate Change and the Kyoto Protocol, these treaties bind Hong Kong. The Kyoto Protocol deals with six greenhouse gases (including carbon dioxide, methane, and nitrous oxide) and despite coming into force in 2005, it is not referred to in any primary or subsidiary air pollution legislation in Hong Kong. This issue will have to be addressed at some stage but is beyond the ambit of this review.

## Acknowledgements & further reading

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This paper can be downloaded from the Civic Exchange website at:

[www.civic-exchange.org/eng/upload/files/200902APCOs.pdf](http://www.civic-exchange.org/eng/upload/files/200902APCOs.pdf)

This paper was written by Andrew Lawson, based on a review of the APCO by Antonio da Roza, Barrister-at-law, and Research Fellow at the University of Hong Kong. This review can be downloaded from Civic Exchange's website at:

[www.civic-exchange.org/eng/upload/files/200902APCO.pdf](http://www.civic-exchange.org/eng/upload/files/200902APCO.pdf)

Antonio da Roza has prepared a fully annotated version of the APCO, which will be published in 2009 by LexisNexis.

[www.lexisnexis.com.hk](http://www.lexisnexis.com.hk)

Layout by Jonas Chau.

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<sup>21</sup> Including the *Waste Disposal Ordinance (Cap 354)*, *Water Pollution Control Ordinance (Cap 358)*, *Noise Control Ordinance (Cap 400)*, *Ozone Layer Protection Ordinance (Cap 403)*, and the *Environmental Impact Assessment Ordinance (Cap 499)*

<sup>22</sup> e.g. *Environmental Impact Assessment Ordinance (Cap. 499)*

<sup>23</sup> Under s. 49 of the APCO, provisions of the APCO are to be regarded as additional to, rather than overriding, provisions of other ordinances.

<b>Box 3:</b>	<b>The Air Pollution Control Ordinance: a summary of Parts &amp; Sections</b>
<b>Part I (Sections 1 – 5)</b>	<b>Preliminary</b> – Contains the interpretation (s. 2) and application provisions, and establishes the air pollution control Authority.
<b>Part II (Sections 6 – 8)</b>	<b>Air Control Zones and Air Quality Objectives</b> – provides for air control zones (s. 6) and air quality objectives (s. 7). A ‘catch-all’ for air pollution – what is not dealt with by licensing or asbestos control must fall under air quality objectives.
<b>Part III (Sections 9 – 10)</b>	<b>Control of Air Pollution</b> – deals with the control of air pollution by way of technical memoranda (s. 9) and air pollution abatement notices (s. 10).
<b>Part IV (Sections 11 – 26A)</b>	<b>Specified Processes and the Licensing of Premises</b> – specified processes are set out in Schedule 1. The prevention of noxious or offensive emissions is provided for in s. 12, and the requirement to be licensed for such processes is set out in s. 13, failure for which is a criminal offence.
<b>Part IVA (Sections 26B – 26F)</b>	<b>Unleaded Petrol and Control of the Emission of Air Pollutants from Motor Vehicles</b> – this Part has been repealed in its entirety.
<b>Part IVB (Sections 26G – 26N)</b>	<b>Specified Licences</b> – concerns licences for electricity works (referred to as specified licences under s. 2). For such licences, there is a quantity of emission allowances allocated under s. 26G, breach of which is a criminal offence.
<b>Part V (Sections 27 – 30B)</b>	<b>Enforcement</b> – contains the powers of enforcement, including the Authority’s powers to obtain information, powers of entry and inspection, power to require modification in respect of licensed premises, offence provisions for failing to comply with the Authority and for breach of terms of a licence.
<b>Part VI (Sections 31 – 36)</b>	<b>Appeals</b> – concerns appeals against the decisions of the Authority, and sets out the establishment, composition and jurisdiction of the Appeal Board.
<b>Part VII (Sections 37 – 50)</b>	<b>Miscellaneous</b> – provides for miscellaneous matters such as the establishment of Codes of Practice under s. 37, the power of the Secretary for the Environment to create regulations under s. 43, time limitations for laying information in respect of offences under the Ordinance under s. 46, the supplementary nature of the provisions of the APCO under s. 49, and so on.
<b>Part VIII (Sections 51 – 68)</b>	<b>Control of Environmental Asbestos</b> – the asbestos control regime.
<b>Part IX (Sections 69 – 80)</b>	<b>Asbestos Control Works</b> – the asbestos control regime.



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