

立法會
Legislative Council

LC Paper No. CB(1) 952/06-07

Ref : CB1/HS/1/06

Paper for the House Committee meeting on 23 February 2007

**Subcommittee to Study Issues Relating to the
Air Pollution Control (Volatile Organic Compounds) Regulation**

Purpose

This paper reports on the deliberations of the Subcommittee to Study Issues Relating to the Air Pollution Control (Volatile Organic Compounds) Regulation (the Subcommittee).

Background

2. The Air Pollution Control (Volatile Organic Compounds) Regulation (the Regulation) seeks to prohibit the manufacture and importation of regulated products (i.e. regulated paints, regulated printing inks and regulated consumer products) if the content of volatile organic compounds (VOCs) of the product exceeds the maximum limit that is prescribed by the proposed Regulation for that product. It was published in the Gazette on 24 November 2006 and tabled in the Legislative Council on 29 November 2006 for implementation on 1 April 2007. A Subcommittee was formed by the House Committee (HC) on 1 December 2006 to study the Regulation (the former Subcommittee). On 20 December 2006, a resolution was passed by the Council to extend the scrutiny period to 17 January 2007 to allow sufficient time for the former Subcommittee to scrutinize the Regulation.

3. While there was general support for the Regulation to control VOC emissions in Hong Kong, there were technical issues which had yet to be resolved with the Administration before the expiry of the extended scrutiny period. Owing to time constraints, the Regulation was repealed by the Council on 17 January 2007. To expedite the examination of the new Air Pollution Control (Volatile Organic Compounds) Regulation (the proposed Regulation) to be made by the Administration after the repeal of the Regulation, the Subcommittee was set up at the meeting of HC on 12 January 2007 to study the issues relating to the proposed Regulation.

The Subcommittee and its deliberations

4. The Subcommittee comprises seven members with Hon Audrey EU Yuet-mee elected as Chairman. The membership list of the Subcommittee is in **Appendix I**. The Subcommittee has held four meetings with the Administration. Apart from examining the policy aspect and the drafting of the proposed Regulation, the Subcommittee has also examined the issues identified by the former Subcommittee for more detailed study, including the question of imposing liability on retailers in addition to manufacturers and importers.

Effectiveness of the proposed Regulation to improve air quality

5. The Subcommittee supports the policy intent of the proposed Regulation to control VOCs with a view to improving air quality. Members however raise question on the efficacy of the proposed control regime and the Government's efforts to enforce the proposed measures. According to the Administration, the proposed Regulation is one of the initiatives pledged in the 2006 Policy Address to enable Hong Kong to meet the emission reduction targets agreed between the Hong Kong Special Administrative Region (HKSAR) and the Guangdong Provincial Government to reduce by 2010, on a best endeavour basis, the regional emission of sulphur dioxide, nitrogen oxides, respirable suspended particulates and VOCs by 40%, 20%, 55% and 55% respectively, using the emission levels at 1997 as a base. To achieve the reduction target of 55% for VOCs, a series of measures has been implemented, including the control of vehicular emissions as well as the compulsory use of vapour recovery systems in petrol unloading and vehicle refueling. The proposed Regulation prescribes VOC limits for paints, printing inks and VOC-containing consumer products, imposes liabilities on importers and manufacturers who control the ultimate supplies of these regulated products. It is expected that with the implementation of the proposed Regulation and the successful achievement of the aforementioned regional emission reduction targets, the smog problem will be significantly improved.

6. The Subcommittee has also studied the adequacy of the manpower and financial resources earmarked for the enforcement of the proposed control regime. According to the Administration, the Environmental Protection Department will earmark HK\$2.7 million per year for a dedicated team to enforce the provisions of the proposed Regulation, which includes taking random samples of regulated products for testing to ensure compliance. The Government Laboratory will also set aside \$3.1 million for acquiring the necessary equipment.

Liability of retailers

7. The Subcommittee notes that the proposed Regulation aims to control regulated products locally manufactured or imported either by sole agents or parallel importers, for sale at the local market or proprietary use (i.e. the importer or manufacturer is also the end consumer). It does not intend to impose liability on retailers except that they should provide accurate information regarding the origin of

products sold when required. The proposed Regulation will not apply to products for export, re-export, transshipment or in transit, or those products manufactured or imported prior to the enforcement of the respective VOC limits (manufacturers or importers however have the obligations to keep records of the products imported or manufactured in case of being required for assisting investigations of suspected offences).

8. Members are concerned that if retailers are not held liable for selling regulated products exceeding the prescribed VOC limits, there may be circumstances where some unscrupulous retailers may smuggle non-compliant regulated products into Hong Kong and sell them at low prices, thereby creating unfair competition to their law-abiding counterparts. They opine that consideration should be given to holding retailers liable if they knowingly sell regulated products exceeding the prescribed VOC limits.

9. The Administration's explanation is that there are practical difficulties in controlling regulated products at the retail level given the substantial number of retailers in Hong Kong and the different modes of retailing. It is therefore more cost-effective to control the origin of regulated products by imposing liability on manufacturers and importers. Besides, due to practical difficulties, there was strong opposition to the control of sale of regulated products from the trades when the public was consulted on the Regulation. In view of the Subcommittee's concern, the Administration has undertaken to consult the trades again, after the proposed Regulation has come into operation, on the need for and feasibility of imposing liability on those retailers who knowingly sell regulated products exceeding the prescribed VOC limits.

Review of the proposed Regulation after implementation

10. Regarding the types of products to which the proposed Regulation would apply, some members consider that there is room for further tightening of the prescribed VOC limits under the proposed Regulation. By way of illustration, for flat coatings, water-based flat coatings emit much less VOCs as compared to their oil-based counterparts. Hence, these members request the Administration to consider reviewing the VOC limits, particularly for flat coatings, taking into account the availability of alternative products in the market. Other members however take a different view. They consider that the proposed control regime has been worked out after extensive consultation with the trades. Thus, it will be imprudent to introduce any changes at this stage without further consulting the trades.

11. In this respect, the Administration explains that the proposed maximum VOC limit for flat coatings (50 grams per litre) will effectively only allow for the sales of water-based paints with the most advanced formulation. It is already the most stringent standard among advanced countries. Therefore, the trade has to be given sufficient time to re-formulate their paints and alter the current use practice. Nevertheless, the Administration undertakes to review the VOC limit for flat coatings

within one year after the proposed Regulation has come into operation. To facilitate members' understanding of the existing range and the new limits of VOC contents of products, which are modeled after those adopted in California, to be covered under the proposed Regulation, the Administration has provided a comparison table in **Appendix II**.

Some drafting aspects

Definitions of "manufacture" and "manufacturer"

12. Under section 2, "manufacturer" means a person who manufactures in Hong Kong a regulated product but does not include a person whose business only involves adding colourant to the tint base of a regulated product. However, "manufacture" in relation to a regulated product means to prepare, produce, pack, repack or assemble the product without clear indication as to whether the activity of adding colourant to the tint base of a regulated product falls into one of the activities under the definition of "manufacture". Members consider that the discrepancy between the two definitions may render a person, whose business only involves adding colourant to the tint base of a regulated product, unnecessarily caught under sections 3, 10 and 13 which prohibit the manufacture and import of regulated products, failure of which may be subject to, among other things, imprisonment of six months.

13. In light of members' concern, the Administration agrees to revise the definition such that "manufacture", in relation to a regulated product, means to prepare, produce, pack, repack or assemble the product, but does not include the process of solely adding colourant to the tint base of a regulated product.

Requirement to submit a report

14. Sections 8, 11 and 14 require a manufacturer or an importer of a regulated product to submit to the Authority on or before 31 March of each year a report for the period from 1 January to 31 December of the previous year. The report shall contain information, including the name of the manufacturer or importer of the regulated product, the type of regulated product to which the manufactured or imported regulated product belongs, the brand and full name of the regulated product, the volume or weight in which the regulated product is sold and the total volume or weight, excluding packaging and container, of the regulated product as sold by the manufacturer or importer in Hong Kong, or used by the manufacturer or importer himself.

15. Questions have been raised on the need for reports if these are not required upon importation of regulated products. Some members are concerned that the provisions may have accorded the Administration with excessive power, particularly when these reports are mainly used for statistical purpose while non-compliance or provision of misleading/false information may result in imprisonment of three months. According to the Administration, information contained in these reports is essential in

assessing the effectiveness of the control regime in reducing VOC emissions. If information collected indicates that VOC levels cannot meet the 2010 emission reduction target, consideration will be given to further tightening the control on VOCs. Besides, many products or processes with environmental impacts are often subject to more stringent requirement, such as mandatory licensing or registration, to control and monitor the products. However, such stringent requirement has been removed from the proposed control regime in light of the concerns of the trades during the initial public consultation in 2005.

Determination of VOC content

16 Sections 9, 12 and 15 provides that the Authority may permit to be adopted any other test method that is equivalent to the prescribed method under the proposed Regulation.

17. Members consider that the term “equivalent” may restrict the Authority’s flexibility in adopting other alternative test methods. They also opine that consideration should be given to specifying in the proposed Regulation the requirement for publishing such alternative methods on the official website in line with other legislation. The Administration takes on board members’ view and agrees to amend the relevant sections such that the Authority may permit any test method to be adopted as an alternative to the prescribed method and shall, after giving the permission, publish a notice which is accessible through the internet.

Procedural arrangements for debate on the proposed Regulation

18. The Subcommittee notes that the Administration intends to have the proposed Regulation, incorporating the suggested amendments put forward by members, to come into operation on 1 April 2007. As the proposed Regulation is subsidiary legislation subject to negative vetting, members are concerned that there may not be any opportunity for Members to debate the proposed Regulation if no motion to amend the proposed Regulation is moved. Given the far-reaching implications of the proposed control regime on VOCs which is completely new to Hong Kong, the Subcommittee agrees that it is necessary that Members should be able to speak on the proposed Regulation in the Council after it has been tabled in the Council, and that the responsible officers should respond to views of Members at the same Council meeting. In this connection, the Legislative Council Secretariat has prepared a paper detailing the options available to Members for speaking on the proposed Regulation (LC Paper No. CB(1) 913/06-07(03)).

19. At the Subcommittee meeting on 8 February 2007, members decided that the Chairman should, on behalf of the Subcommittee, recommend to HC the holding of a motion debate on the proposed Regulation at the Council meeting on 14 March 2007. Given that the speaking time for each Member would be 15 minutes, as recommended by the Subcommittee, it was also agreed that a suggestion be made to HC that there would only be two motion debates, including the one on the proposed Regulation, at

that Council meeting. The wording of the motion debate is as follows –

“That this Council notes the Air Pollution Control (Volatile Organic Compounds) Regulation which was published in the Gazette as Legal Notice No. 20 of 2007 and laid on the table of the Legislative Council on 28 February 2007.”

20. The Subcommittee has also requested the Administration to include in the speech of the Secretary for the Environment, Transport and Works to be delivered at the motion debate on the proposed Regulation an undertaking that it will conduct a review of the adequacy of the resources earmarked for enforcement of the proposed Regulation, the need to impose liability on retailers and the VOC limit for flat coatings within one year after the proposed Regulation has come into operation.

Advice sought

21. Members are invited to note the deliberations of the Subcommittee and support the recommendation of holding a debate on the proposed Regulation as set out in paragraph 19 above.

Prepared by
Council Business Division 1
Legislative Council Secretariat
22 February 2007

**Subcommittee to Study Issues Relating to the
Air Pollution Control (Volatile Organic Compounds) Regulation**

Membership list

Chairman Hon Audrey EU Yuet-mee, SC, JP

Members Hon Martin LEE Chu-ming, SC, JP
Hon CHAN Yuen-han, JP
Hon SIN Chung-kai, JP
Hon Howard YOUNG, SBS, JP
Hon Emily LAU Wai-hing, JP
Hon CHOY So-yuk, JP
Hon Vincent FANG Kang, JP

(Total : 8 Members)

Clerk Miss Becky YU

Legal Adviser Mr Stephen LAM

Date 18 January 2007

**TABLES TO SHOW VOC CONTENTS OF REGULATED PRODUCTS
THE HONG KONG MARKET**

For Regulated Paints

(VOC Limits expressed in grams per litre)

Regulated Paint	HK proposed VOC Limits and Effective Dates			California Standard	VOC Content of Product in HK Market
	1 Jan 2008 (Part 2)	1 Jan 2009 (Part 3)	1 Jan 2010 (Part 4)		
Aluminium roof coatings	250	-	-	250	~ 500
Below-ground wood preservatives	350	-	-	350	~ 350
Bond breakers	350	-	-	350	~ 350
Clear brushing lacquers	650	-	-	680 ⁽¹⁾	610 - 650
Clear wood finishes (sanding sealers)	150	-	-	275 ⁽¹⁾	250 - 770
Concrete-curing compounds	350	-	-	350	~ 550
Dry-fog coatings	400	-	-	400	~ 400
Fire-proofing exterior coatings	350	-	-	350	~ 450
Graphic arts (sign) coatings	500	-	-	500	~ 500
Interior stains	250	-	-	250	~ 250
Magnesite cement coatings	450	-	-	450	~ 600
Mastic coatings	300	-	-	300	~ 300
Other architectural coatings	250	-	-	250	n.a.
Pigmented lacquers	275	-	-	275	~ 690
Recycled coatings	250	-	-	250	~ 250
Roof coatings (exposed)	50	-	-	50	~ 300
Roof coatings (non-exposed)	250	-	-	250	~ 300
Shellacs (clear)	730	-	-	730	~ 730
Shellacs (pigmented)	550	-	-	550	~ 550
Specialty primers	350	-	-	350	~ 400
Stains	100	-	-	100	~ 350
Swimming pool coatings (other)	340	-	-	340	~ 340
Swimming pool repair coatings	340	-	-	340	~ 650
Waterproofing concrete or masonry sealers	400	-	-	400	~ 400
Wood preservatives (other)	350	-	-	350	~ 350
Fire-retardant coatings (clear)	-	650	-	650	~ 750

Flat coatings	-	50	-	50	~ 100
Granite look-a-like coatings or textured undercoaters	-	100	-	100	~ 120
Japans or faux finishing coatings	-	350	-	350	~ 380
Multi-colour coatings	-	250	-	250	~ 350
Non-flat coatings	-	150	-	150	~ 200
Roof primers (bituminous)	-	350	-	350	350 -500
Clear wood finishes (lacquers)	-	-	550	550	~ 690
Clear wood finishes (varnishes)	-	-	150	275 ⁽¹⁾	250 - 550
Extreme high-gloss coatings for metal	-	-	420	420	~ 470
Fire-retardant coatings (pigmented)	-	-	350	350	~ 750
Floor coatings	-	-	250	250	~ 490
High-temperature industrial maintenance coatings	-	-	420	420	~ 590
Industrial maintenance coatings	-	-	250	250	~ 570
Metallic pigmented coatings	-	-	500	500	~ 560
Pre-treatment coatings for metal	-	-	420	420	~ 750
Pre-treatment wash primers	-	-	420	420	~ 750
Primers, sealers and undercoaters	-	-	200	200	~ 380
Quick-dry enamels	-	-	250	250	~ 550
Quick-dry primers, sealers and undercoaters	-	-	200	200	~ 500
Rust preventative coatings	-	-	400	400	~ 450
Superior durability solvent-borne coatings for metal	-	-	420	420	~ 450
Traffic coatings	-	-	150	150	~ 660
Waterproofing sealers	-	-	250	250	~ 400
Zinc-rich industrial maintenance primers	-	-	250	250	~ 520
Low-solids coatings	-	-	120	120	n.a

(1) The trade has proposed these limits as they have already been achieved in the local market.

n.a = not available

For Regulated Printing Inks

(VOC Limits expressed in grams per litre)

Regulated Printing Ink	HK Proposed VOC Limits and Effective Dates		California Standard	VOC Content of Product in HK Market
	1 Apr 2007 (Part 2)	1 Jan 2009 (Part 3)		
Flexographic fluorescent ink	300	-	300	n.a.
Flexographic ink non-porous substrate	300	-	300	30 - 300
Flexographic ink porous substrate	225	-	225	n.a.
Letterpress ink	300	-	300	200 - 300
Lithographic ink (except heatset ink)	300	-	300	170 – 320
Gravure ink	-	300	300	n.a
Screen printing ink	-	400	400	~ 650

For Regulated Consumer Products

(VOC Limits expressed in weight %)

Regulated Consumer Product	HK proposed VOC Limits and Effective Dates			California Standard	VOC Content (weight %) of Product in HK Market
	1 Apr 2007 (Part 2)	1 Jan 2008 (Part 3)	1 Jan 2009 (Part 4)		
Air Freshener					
Air freshener in the form of liquid or pump spray	-	-	18	18	0.1-51
Air freshener in the form of solid or gel	-	-	3	3	0.002-100
Double phase aerosol air freshener	-	25	-	25	~ 30
Dual purpose aerosol air freshener and disinfectant	-	60	-	60	84-100
Single phase aerosol air freshener	-	30	-	30	10-100
Floor Wax Stripper					
For heavy build-up of polish	-	12	-	12	4.5-5.4
For light or medium build-up of polish	-	3	-	3	negligible
Hairspray	80	-	55	55	50-97
Insect Repellent					
Aerosol insect repellent	-	-	65	65	64-85
Insecticide					
Aerosol crawling bug insecticide	-	-	15	15	94-99
Aerosol flying bug insecticide	-	-	25	25	47-99
Aerosol lawn and garden insecticide	-	20	-	20	NA
Flea and tick insecticide	-	25	-	25	~25
Insecticide fogger	-	45	-	45	0.5-32
Multi-purpose Lubricant (excluding product in the form of solid and semi-solid)	-	50	-	50	45-70

For Lithographic Heatset Web Printing Machine

Lithographic Heatset Web Printing Machine	HK Proposed VOC Limits and Effective Date	California Standard	Performance of Machines in HK
Exhaust Emission Standard	1 Jan 2009; 100 mg Carbon per cubic metre of waste gas, without dilution, at standard temperature and pressure	95 % overall VOC destruction efficiency ⁽¹⁾	VOC destruction efficiency for machines with control: 41 – 98%

(1): California accepts a combination of control of VOC in printing inks and use of control equipment for reducing the VOC emissions from lithographic heatset web printing machine to give an overall net effect of emission concentration of about 100 mg Carbon/m³. The same VOC emission limit is also adopted by the United Kingdom.