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By Fax & Mail
(Fax: 2869 6794)

29 January 2007

Legislative Council Secretariat
8 Jackson Road
Central
(Attn.: Miss Becky Yu)

Dear Madam,

Re: Air Pollution Control (Volatile Organic Compounds) Regulation

I refer to your letter of 25 January 2007.

The Administration provides per attached -

- (a) Consolidated amendments on the Regulation; and
- (b) A table comparing the VOC control standards in Hong Kong and California.

Yours faithfully,

(SHIU Lik-king)

for Director of Environmental Protection

c.c.
DoJ (Attn.: Mr. Vidy Cheung) # 2845 2215
(Attn.: Ms. Sandra Chiu) # 2136 8277

Internal
AD(AP)
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“goods in transit” (過境貨品) means regulated products that are brought into Hong Kong solely for the purpose of taking them out of Hong Kong and that remain at all times on the vessel or aircraft that brought them into Hong Kong;

“importer” (進口商) means a person who, whether as owner, consignee, agent or broker, is in possession of or entitled to the custody or control of a regulated product that is imported;

“label” (標籤) means any written, printed or graphic matter affixed to, applied to, attached to, blown into, formed on, moulded into, embossed on or appearing upon an article;

“manufacture” (生產), in relation to a regulated product, means to prepare, produce, pack, repack or assemble the product; but does not include any act involved in the process of solely adding colourant to the tint base of a regulated product.

“manufacturer” (生產商) 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;~~

“NIOSH” means the National Institute for Occupational Safety and Health of the United States;

“packaging” (包裝) includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached;

“prescribed limit” (訂明限制), in relation to –

- (a) a regulated paint, means the maximum limit of the volatile organic compound content specified for that regulated paint in Part 2, 3 or 4 of Schedule 1 (as may be applicable);
- (b) a regulated printing ink, means the maximum limit of the volatile organic compound content specified for that

PART 2

PROHIBITIONS AND REQUIREMENTS RELATING TO THE VOLATILE ORGANIC COMPOUND CONTENT OF REGULATED PAINTS

3. Prohibition on manufacture and import: regulated paints

(1) On or after 1 January 2008, a person shall not manufacture in Hong Kong or import into Hong Kong a regulated paint that is listed in Part 2 of Schedule 1 and has a volatile organic compound content in excess of the prescribed limit.

(2) On or after 1 January 2009, a person shall not manufacture in Hong Kong or import into Hong Kong a regulated paint that is listed in Part 3 of Schedule 1 and has a volatile organic compound content in excess of the prescribed limit.

(3) On or after 1 January 2010, a person shall not manufacture in Hong Kong or import into Hong Kong a regulated paint that is listed in Part 4 of Schedule 1 and has a volatile organic compound content in excess of the prescribed limit.

4. Requirement to carry a label during the transitional period: regulated paints

(1) During the transitional period, a manufacturer or an importer of a regulated paint that has a volatile organic compound content in excess of the prescribed limit shall ensure that a label that complies with section 5 is fixed durably and conspicuously –

- (a) on the surface of the packaging of the regulated paint;
or
- (b) ~~if the manufacturer or importer supplies the paint without any packaging,~~ on the surface of the container of the regulated paint.

(3) A report under this section must be in writing and contain the following information in relation to the regulated paints manufactured or imported by the manufacturer or importer during the period to which the report relates –

- (a) the name of the manufacturer or importer of the regulated paint;
- (b) the type of regulated paint to which the manufactured or imported regulated paint belongs;
- (c) the brand and full name of the regulated paint;
- (d) the volume or weight in which the regulated paint is sold; and
- (e) the total volume or weight, excluding packaging and container, of the regulated paint as sold by the manufacturer or importer in Hong Kong, or used by the manufacturer or importer himself.

9. Determination of volatile organic compound content: regulated paints

(1) For the purposes of this Regulation, the volatile organic compound content of a regulated paint must be determined in accordance with the test method specified in Part 5 of Schedule 1.

~~(2) The Authority may permit to be adopted in place of the test method referred to in subsection (1) any other method, equivalent to that test method.~~

(2) The Authority may permit any test method to be adopted as an alternative to the test method referred to in subsection (1).

(3) The Authority shall, after giving the permission under subsection (2), publish a notice which is accessible through the internet.

(4) A report under this section must be in writing and contain the following information in relation to the regulated printing inks manufactured or imported by the manufacturer or importer during the period to which the report relates –

- (a) the name of the manufacturer or importer of the regulated printing ink;
- (b) the type of regulated printing ink to which the manufactured or imported regulated printing ink belongs;
- (c) the brand and full name of the regulated printing ink;
- (d) the volume or weight in which the regulated printing ink is sold; and
- (e) the total volume or weight, excluding packaging and container, of the regulated printing ink as sold by the manufacturer or importer in Hong Kong, or used by the manufacturer or importer himself.

12. Determination of volatile organic compound content: regulated printing inks

(1) For the purposes of this Regulation, the volatile organic compound content of a regulated printing ink, except a gravure ink, must be determined in accordance with the test method specified in section 1 of Part 4 of Schedule 2.

(2) The volatile organic compound content of a gravure ink must be determined in accordance with the test method specified in section 2 of Part 4 of Schedule 2.

~~(3) The Authority may permit to be adopted in place of the test method referred to in subsection (1) or (2) any other method, equivalent to the relevant test method.~~

(3) The Authority may permit any test method to be adopted as an alternative to the test method referred to in subsection (1) or (2).

(4) The Authority shall, after giving the permission under subsection (3), publish a notice which is accessible through the internet.

(b) listed in Part 3 of Schedule 3, on or before 31 March 2009;
and

(c) listed in Part 4 of Schedule 3, on or before 31 March 2010.

(3) The period for which a report is required to be submitted under subsection (2)(a) is 1 April 2007 to 31 December 2007.

(4) A report under this section must be in writing and contain the following information in relation to the regulated consumer products manufactured or imported by the manufacturer or importer during the period to which the report relates –

- (a) the name of the manufacturer or importer of the regulated consumer product;
- (b) the type of regulated consumer product to which the manufactured or imported regulated consumer product belongs;
- (c) the brand and full name of the regulated consumer product;
- (d) the volume or weight in which the regulated consumer product is sold; and
- (e) the total volume or weight, excluding packaging and container, of the regulated consumer product as sold by the manufacturer or importer in Hong Kong, or used by the manufacturer or importer himself.

15. Determination of volatile organic compound content: regulated consumer products

(1) For the purposes of this Regulation, the volatile organic compound content of a regulated consumer product must be determined in accordance with the test methods specified in Part 7 of Schedule 3.

~~(2) The Authority may permit to be adopted in place of the test method referred to in subsection (1) any other method, equivalent to that test method.~~

(2) The Authority may permit any test method to be adopted as an alternative to the test method referred to in subsection (1).

(3) The Authority shall, after giving the permission under subsection (2), publish a notice which is accessible through the internet.

PART 5

REQUIREMENT TO CONTROL VOLATILE ORGANIC COMPOUND EMISSIONS FROM LITHOGRAPHIC HEATSET WEB PRINTING MACHINES

16. Limits on volatile organic compound emissions from lithographic heatset web printing machines

(1) On and after 1 January 2009, an owner of a lithographic heatset web printing machine shall install on the machine an emission control device with an emission limit on volatile organic compounds of no more than 100 mg Carbon/m³ on the waste gases, without dilution, at reference conditions of 0°C and 101.325 kilopascals.

(2) The owner shall ensure that the emission control device referred to in subsection (1) has been –

- (a) certified by a competent person using Method 18, “Measurement of Gaseous Organic Compound Emissions by Gas Chromatography”, as adopted by US EPA that he has complied with the requirement specified in subsection (1);
- (b) re-certified by a competent person within 24 months from the previous certification; and
- (c) designed and operated to capture and control the emission of volatile organic compounds from all printing work of the machine.

(3) The owner shall display the latest certificate certified by a competent person referred to in subsection (2) at a conspicuous place on the machine.

(4) If the owner receives a notice in writing from the Authority that the Authority is not satisfied with the result of any certification, the owner shall ~~carry out a re-test~~ ensure that a re-certification is carried out within the period specified by the Authority in the notice.

(5) In this section, “competent person” (合資格人士) means a registered professional engineer in the building services, gas, chemical, environmental, marine and naval architecture or mechanical discipline under the Engineers Registration Ordinance (Cap. 409).

PART 6

OFFENCES, DEFENCES AND RELATED MATTERS: ALL REGULATED PRODUCTS

17. Offences and penalties

(1) A person who contravenes section 3(1), (2) or (3) commits an offence and is liable to a fine of \$200,000 and to imprisonment for 6 months.

(2) A person who fails to comply with section 4 commits an offence and is liable to a fine at level 6 and to imprisonment for 3 months.

(3) A person who fails to comply with section 6 commits an offence and is liable to a fine at level 5 and to imprisonment for 3 months.

(4) A person who fails to comply with section 7 commits an offence and is liable to a fine at level 5 and to imprisonment for 3 months.

(5) A person who fails to comply with section 8 commits an offence and is liable to a fine at level 5 and to imprisonment for 3 months.

(6) A person who contravenes section 10(1) or (2) commits an offence and is liable to a fine of \$200,000 and to imprisonment for 6 months.

(2) In a prosecution for an offence under this Regulation, a regulated product that is found in Hong Kong is presumed, in the absence of evidence to the contrary, to be a regulated product that is not –

- (a) goods in transit;
- (b) goods in the course of transshipment; or
- (c) goods that are solely for export or re-export.

(3) In subsection (1), “relevant date” (有關日期), in relation to a regulated product, means –

- (a) in the case of a prohibition, the date with effect from which the manufacture or importation of the regulated product having a volatile organic compound content in excess of the prescribed limit for that product is prohibited; and
- (b) in the case of a requirement, the date with effect from which the relevant requirement has to be complied with.

PART 7

GENERAL PROVISIONS: ALL REGULATED PRODUCTS

20. Regulation does not apply to goods in transit etc.

~~This Regulation does not apply to a regulated product that is in transit, or in the course of transshipment or a regulated product that is solely for export or re-export.~~

This Regulation does not apply to a regulated product that -

- (a) is goods in transit;
- (b) is in the course of transshipment; or
- (c) is solely for export or re-export.

TABLES COMPARING THE PROPOSED VOC LIMITS OF HONG KONG WITH THE CALIFORNIA'S STANDARDS

For Regulated Paints

(VOC Limits expressed in grams per litre)

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

Fire-retardant coatings (clear)	-	650	-	650
Flat coatings	-	50	-	50
Granite look-a-like coatings or textured undercoaters	-	100	-	100
Japans or faux finishing coatings	-	350	-	350
Multi-colour coatings	-	250	-	250
Non-flat coatings	-	150	-	150
Roof primers (bituminous)	-	350	-	350
Clear wood finishes (lacquers)	-	-	550	550
Clear wood finishes (varnishes)	-	-	150	275 ⁽¹⁾
Extreme high-gloss coatings for metal	-	-	420	420
Fire-retardant coatings (pigmented)	-	-	350	350
Floor coatings	-	-	250	250
High-temperature industrial maintenance coatings	-	-	420	420
Industrial maintenance coatings	-	-	250	250
Metallic pigmented coatings	-	-	500	500
Pre-treatment coatings for metal	-	-	420	420
Pre-treatment wash primers	-	-	420	420
Primers, sealers and undercoaters	-	-	200	200
Quick-dry enamels	-	-	250	250
Quick-dry primers, sealers and undercoaters	-	-	200	200
Rust preventative coatings	-	-	400	400
Superior durability solvent-borne coatings for metal	-	-	420	420
Traffic coatings	-	-	150	150
Waterproofing sealers	-	-	250	250
Zinc-rich industrial maintenance primers	-	-	250	250
Low-solids coatings	-	-	120	120

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

For Regulated Printing Inks

(VOC Limits expressed in grams per litre)

Regulated Printing Ink	HK Proposed VOC Limits and Effective Dates		California Standard
	1 Apr 2007 (Part 2)	1 Jan 2009 (Part 3)	
Flexographic fluorescent ink	300	-	300
Flexographic ink non-porous substrate	300	-	300
Flexographic ink porous substrate	225	-	225
Letterpress ink	300	-	300
Lithographic ink (except heatset ink)	300	-	300
Gravure ink	-	300	300
Screen printing ink	-	400	400

For Regulated Consumer Products

(VOC Limits expressed in weight %)

Regulated Consumer Products	HK proposed VOC Limits and Effective Dates			California Standard
	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
Air freshener in the form of solid or gel	-	-	3	3
Double phase aerosol air freshener	-	25	-	25
Dual purpose aerosol air freshener and disinfectant	-	60	-	60
Single phase aerosol air freshener	-	30	-	30
Floor Wax Stripper				
For heavy build-up of polish	-	12	-	12
For light or medium build-up of polish	-	3	-	3
Hairspray	80	-	55	55
Insect Repellent				
Aerosol insect repellent	-	-	65	65
Insecticide				
Aerosol crawling bug insecticide	-	-	15	15
Aerosol flying bug insecticide	-	-	25	25
Aerosol lawn and garden insecticide	-	20	-	20
Flea and tick insecticide	-	25	-	25
Insecticide fogger	-	45	-	45
Multi-purpose Lubricant (excluding product in the form of solid and semi-solid)	-	50	-	50

For Lithographic Heatset Web Printing Machine

Lithographic Heatset Web Printing Machine	HK Proposed VOC Limits and Effective Date	California Standard
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⁾

(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.