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By Fax & Email  
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7<sup>th</sup> February 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 30<sup>th</sup> January 2007.

I set out below the Administration's response to follow-up issues arising from last Subcommittee meeting –

- (1) Concerning the consistency in the name of "exempt compound"

Amendment has been made to ensure the consistency among different schedules.

- (2) Concerning the improvement to the compliance of Air Quality Objective

With the achievement of the 2010 emission reduction targets for the four air pollutants in both Hong Kong and Guangdong, viz. sulphur dioxide, nitrogen dioxide, respirable suspended particulates and volatile organic compounds, we expect that the ambient air quality will by and large comply with the Air Quality Objective. The smog problem will also be significantly improved.

- (3) Concerning the existing range of VOC contents in regulated products

This is provided in the table attached.

- (4) Concerning the manpower and financial resources for enforcement

The Environmental Protection Department has earmarked HK\$2.7 million per year for a dedicated team to enforce the provisions of the Regulation. The enforcement will include taking random samples of regulated products for testing to ensure compliance with the Regulation. The Government Laboratory has been provided HK\$3.51 million for acquiring the necessary equipment.

- (5) Concerning flat coatings and the review of the Regulation

The proposed maximum limit of VOC content 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. It will only come into force by 1<sup>st</sup> July 2008 in California. The trade has to be given sufficient time to re-formulate their paints and change the existing use practice. Nevertheless, the Administration will review the adequacy of the Regulation after implementation as planned earlier.

As agreed at last meeting, the Administration has arranged to publish the revised Regulation in Gazette on 9<sup>th</sup> February. The relevant Legislative Council Brief has also been issued.

Yours faithfully,

(SHIU Lik-king)  
*for Director of Environmental Protection*

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

**For Regulated Paints**

*(VOC Limits expressed in grams per litre)*

Regulated Paints	HK proposed VOC Limits and Effective Dates			California Standard	VOC Content of Products on 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 <sup>(1)</sup>	610 - 650
Clear wood finishes (sanding sealers)	150	-	-	275 <sup>(1)</sup>	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 <sup>(1)</sup>	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 on 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 Products	HK proposed VOC Limits and Effective Dates			California Standard	VOC Content (weight %) of Product on HK Market
	1 Apr 2007 (Part 2)	1 Jan 2008 (Part 3)	1 Jan 2009 (Part 4)		
<b>Air Freshener</b>					
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
<b>Floor Wax Stripper</b>					
For heavy build-up of polish	-	12	-	12	4.5-5.4



For light or medium build-up of polish	-	3	-	3	negligible
<b>Hairspray</b>	80	-	55	55	50-97
<b>Insect Repellent</b>					
Aerosol insect repellent	-	-	65	65	64-85
<b>Insecticide</b>					
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
<b>Multi-purpose Lubricant (excluding product in the form of solid and semi-solid)</b>	-	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 <sup>(1)</sup>	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/m<sup>3</sup>. The same VOC emission limit is also adopted by the United Kingdom.