

REVIEW OF SELECTED OVERSEAS REGULATION ON VOC EMISSION CONTROL

	Hong Kong – still in public consultation stage	USA	European Union
Regulatory / Authorizing body	Environment Protection Department (EPD)	US Environmental Protection Agency (USEPA) - federal <i>* In addition to federal law, companies must also comply with State laws</i>	EU Directive 1999/13/EC which aims to reduce emissions of VOCs from solvents used in paints, varnishes and vehicle refinishing products by 2007
Regulatory approach to controlling VOC emissions	<p>Involves a two-stage process:</p> <p><u>Stage 1:</u> Mandatory registration and labelling in paints, printing inks and selected consumer products (<i>currently in public consultation stage</i>)</p> <p><u>Stage 2:</u> Impose VOC content limits on specified types of products (<i>subject to effectiveness of Stage 1, will be considered in 2006/07</i>).</p>	<p>Prior to 1990, the initial focus of Clean Air Act was on VOC emissions standards from vehicles and industrial sources.</p> <p>1990 Clean Air Act Amendment - Section 183(e) – the 1990 law amendment mandates compliance of consumer and commercial products with federal VOC standards.</p> <p>There are 2 basic categories of solvent sector VOC control measures:</p> <ol style="list-style-type: none"> (1) Measures that limit the VOC content of consumer and commercial products (2) Measures that apply to solvent-use facilities and operations 	<p><u>VOC emission ceilings</u> In March 2004, the European Parliament has passed a directive which will limit as of 2007 the release of VOC content from paints, varnishes, and vehicle refinishing products. Emission ceilings are set for 2010 for each Member State.</p> <p>This will involve a two-phased approach – limits will be in place in January 2007, with tighter specifications by January 2010.</p> <p>EU members have 18 months to implement adopt implementing measures.</p> <p><u>Eco-labelling</u> Another key strategy applied is general eco-labelling regulation. This is a voluntary market-based instrument allowing product manufacturers who have been awarded the use of EU eco-label to inform customers that their products meet a high ecological and environment criteria.</p> <p>There are >80 indoor paints and varnishes allowed to display the EU eco-label, meaning that the respective manufacturers have to voluntarily meet stringent environmental criteria including maximum VOC content.</p>

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Products within the scope of regulation	<ul style="list-style-type: none"> Paints - All types of paints, including architectural, vehicle refinishing, industrial, and all other purposes Printing inks Selected consumer products, including insecticide, hairspray, air freshener, etc. <p>Applies to products for sale in Hong Kong.</p>	<p>Total of 24 product categories (some are divided into subcategories), in these 3 areas:</p> <ol style="list-style-type: none"> Architectural coatings Automobile refinish coatings Consumer products (includes cleaning products, floor polishes and waxes, personal care products) <p>Applies to all products for sale/use in USA.</p>	<p>Regulations on VOC emission ceilings and voluntary eco-labelling relate to the following product categories:</p> <ul style="list-style-type: none"> Paints Varnishes Vehicle refinishing products <p>To date, we are not aware of any mandatory EU requirements on consumer products.</p>
Regulated entities	Importers or local manufacturers of paints, printing inks and selected consumer products for sale in Hong Kong	Manufacturers and importers worldwide, of products for use in USA	Manufacturers
Regulatory requirements that affect the entities	<p><u>Registration</u></p> <ul style="list-style-type: none"> Registration with EPD of VOC contents of each type of product Registration will be supported by testing reports, product information and other data as required <p><u>Labelling</u></p> <ul style="list-style-type: none"> Bilingual label showing: VOC contents; educational message; and EPD registration number. <p><u>Record keeping and reporting</u></p> <ul style="list-style-type: none"> Submit to EPD an annual sales amount of registered products Maintain 3-years sales record of 	<p>There are separate regulations for each of the product groups. In general, they include:</p> <p><u>Registration</u></p> <p>All regulated entities are required to lodge a One-time Initial Notification Report with the EPA, with details of company information and product information. See below “Reporting” for further details</p> <p><u>VOC content limits</u></p> <p>Refer to Table 1 for list of consumer products under the agenda of reduction of emissions for volatile organic compounds¹</p> <p><u>Labelling</u></p>	<p>Implementation and reporting requirements from the EU Directive:</p> <p><u>VOC emission ceilings</u></p> <p>Each Member State has to draft local policies and laws with the aim of achieving their target emission ceilings.</p> <p><u>Reporting to EU</u></p> <p>Each Member State is required to report on progress on implementation of the national ceilings in 2004, 2008 and 2012.</p>

¹ Domestic manufacturers and importers that do not meet the standards may comply with the ruling by paying an exceedance fee. Alternatively, an tonnage exemption allows manufacturers to comply if they produce less than a specified amount per year.

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	registered products.	<p>Label on product container or package. For most products, the label should only specify the date of manufacture. However there are stricter requirements for architectural coatings. Labels should specify:</p> <ol style="list-style-type: none"> 1. Date of manufacture 2. Statement of manufacturer's recommendation for thinning 3. VOC content of the coating OR VOC limit that is specified in the rule (as long as not exceeded) 4. "For Industrial Use only", "Not For Residential Use", or similar. <p><u>Record keeping and reporting</u></p> <p><i>Company and VOC content records</i> Keep records of design formulations of each product to demonstrate compliance.</p> <p>One-time Initial Notification Report, which includes: company details, list of product categories and subcategories, location where VOC content records are kept, description of how the date of manufacture is marked on the product, location of manufacturing, importing or distributing the products.</p> <p><i>[For architectural coatings only]</i> Annual reports are required from manufacturers and importers that use the exceedance fee provisions and tonnage exemptions. Annual reports should</p>	

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		<p>include details of coating categories which exceed of VOC limits, and annual fees payable.</p> <p><i>Sales record</i> Reporting or record keeping of annual sales volume is not required for compliance of federal requirements, <u>except</u> for architectural coatings where manufacturers or importers wish to claim tonnage exemptions.</p> <p>However companies must also comply with State regulations, which may have additional reporting requirements. For example, California specifically requires companies to report annual sales of consumer products containing VOC.</p>	

OTHER COUNTRIES

Canada

In its Government Gazette (27 March 2004), the Canadian Government has announced a commitment to develop an action plan and measures to reduce VOCs from consumer and commercial products (for 2004 to 2010). This is in response to clear air initiatives, and studies showing these products constitute a significant source of VOCs emissions.

In considering measures, reference is made to current control actions in the USA, which the aim of aligning standards with the USEPA initiatives. This includes establishing national VOC emission standards by prescribing max VOC limits for consumer products; architectural & industrial maintenance coatings; and automobile refinish coatings.

Singapore

Based on informal enquiry with the Singapore National Environment Agency (NEA), it is advised that the Environmental Pollution Control Act and its Regulations, controls the emission of air impurities including VOCs. This legislation applies to all owner or occupier of industrial or trade premises.

There is no indication any specific registration, labelling requirement or VOC content limits are imposed on products.

Australia

Similarly, an informal enquiry with the Australian Department of Health indicates that monitoring measures are implemented to measure and control VOC emissions. National Environment Protection (Air Toxics) Measure, April 2004 – which is binding for all states and territories, sets out the national benchmarks and a consistent approach to assessment, data collection, monitoring, and reporting procedures for selected VOC air toxics.

TABLE 1: List of consumer products under the agenda of reduction of emissions for volatile organic compounds (USA)

(Source: Federal agenda for reduction of emissions of volatile organic compounds from consumer and commercial products.
http://www.ec.gc.ca/nopp/DOCS/notices/voc/en/supportDoc_p5.cfm)

<p>A. Personal Care Products</p> <p>1. <i>Hair Care</i></p> <ul style="list-style-type: none"> • Hairsprays • Hair Mousses • Hair Styling Gels <p>2. <i>Deodorants and Antiperspirants</i></p> <ul style="list-style-type: none"> • Antiperspirants - aerosol • Deodorants – aerosol <p>3. <i>Miscellaneous Personal Care Products</i></p> <ul style="list-style-type: none"> • Shaving Creams • Nail Polish Removers <p>B. Cleaning and Maintenance Products</p> <p>1. <i>Auto</i></p> <ul style="list-style-type: none"> • Carburetors and Choke Cleaners • Engine Degreasers (aerosol and non-aerosol) • Windshield Washer Fluid <p>2. <i>Air Fresheners</i></p> <ul style="list-style-type: none"> • Single-Phase • Double-Phase • Liquids/Pump Sprays • Solids/Gels <p>3. <i>Laundry Products</i></p> <ul style="list-style-type: none"> • Pre-wash Aerosols/Solids • Pre-wash - All Other Forms • Starch Products <p>4. <i>Floor Polishes/Waxes</i></p> <ul style="list-style-type: none"> • Products for Flexible Flooring • Products for Non-resilient Flooring • Wood Floor Wax <p>5. <i>Furniture Maintenance Products</i></p> <ul style="list-style-type: none"> • Aerosol <p>6. <i>Fabric and Carpet Care</i></p> <ul style="list-style-type: none"> • Fabric Protectants 	<p>B. Cleaning and Maintenance Products (continued)</p> <p>7. <i>General Purpose Cleaners</i></p> <ul style="list-style-type: none"> • Aerosol • Non-aerosol <p>8. <i>Bathroom and Tile Cleaners</i></p> <ul style="list-style-type: none"> • Aerosol • Non-aerosol <p>9. <i>Glass Cleaners</i></p> <ul style="list-style-type: none"> • Aerosol • All Other Forms <p>10. <i>Oven Cleaners</i></p> <ul style="list-style-type: none"> • Aerosol/Pump Sprays • Liquids <p>11. <i>Dusting Aids</i></p> <ul style="list-style-type: none"> • Aerosols • All Other Forms <p>12. <i>Household Adhesives</i></p> <ul style="list-style-type: none"> • Aerosols • Contact • Construction and Panel • General Purpose • Structural Waterproof <p>C. Pesticides/Herbicides/Fungicides</p> <p>1. <i>Insecticides</i></p> <ul style="list-style-type: none"> • Crawling Bug • Flea and Tick • Flying Bug • Foggers • Lawn and Garden <p>D. Other/Miscellaneous</p> <p>1. Cooking Sprays – Aerosol</p> <p>2. Charcoal Lighter Fluid</p>
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