

December 14th, 2007

Mrs Mary Tang
Clerk to the Panel on Environmental Affairs
Legislative Council
Legislative Council Building
8 Jackson Road
Central
Hong Kong

Dear Mrs Tang,

**Government's Proposal to Promote
Cleaner Production Practices among Hong Kong's Industry**

For and on behalf of the members of the Hong Kong Environmental Industry Association (HKEnvIA. <http://www.hkenvia.org/>), I am writing to express our appreciation of and our full support to the Five-Year Cleaner Production Programme (*hereafter*, the Programme) as proposed in the Chief Executive's Policy Address this October, as the first-of-its-kind policy programmes by the HKSAR Government in providing financial as well as technical assistance to enhancing Hong Kong-owned manufacturing industries with their operating bases in the Pearl River Delta (PRD) region of Guangdong Province, in terms of green productivity and environmental performance. In response to EPD's consultation exercise on this proposed Programme, I will now provide some specific comments after having collated responses from our group members as below.

(a) The proposed guiding principles;

We agree with most of the guiding principles in general. More specifically, regarding the first guiding principle (air pollution reduction and enhanced energy efficiency), we would like to see if the Government has any plan to broaden the scope of environmental objectives for this



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Programme by including the following areas:

- Freshwater conservation in industrial operations;
 1. Greywater recycling (中水回用);
 2. Water Consumption Management.
- Reduction in wastewater discharge;
- Reduction in raw material utilization;
- Solid waste reduction.

Our recommendation is based on the reason that, while we understand this Programme focuses on air pollution and energy issues in the context of providing support to the Government's drive for 'Blue Sky' and hence a better and cleaner regional air quality in Guangdong and Hong Kong, industrial pollution is basically cross-media.¹ A more comprehensive scope of environmental objectives can help minimize the risk of displacement of industrial pollution from one medium (e.g. air) to another (e.g. wastewater), and better suit the spirit of Cleaner Production as a "total process improvement".

(b) The proposed industry sectors to be targeted initially

It is understood that 8 industry sectors are to be targeted in the initial phase of the programme. From the series of briefing sessions and meetings held by EPD/HKPC in the past month and from our members' views, there are a number of concerns or issues that have been raised on the Programme that are summarized below together with our views and responses:

- (i) *How should the success of the 5-Year Cleaner Production Programme be benchmarked? Do we need to set some initial programme targets (e.g. physical volume in VOC reduction) before the on-site assessments and other programme sub-components are actually implemented?*

¹ For example, the employment of more efficient and advanced wastewater treatment technology at a factory can improve not only the reduction in wastewater discharge, but can also achieve energy efficiency as well as the reduction in sludge as a side-product from industrial wastewater treatment.



Our views:

- We understand there may be opinion that the Programme, being publicly funded with taxpayers' money, should be adequately justifiable with the existence of objective benchmarks for easy evaluation of the programme effectiveness. This is also the case of other similar policy programmes such as China's Cleaner Production Policy Programmes (implemented since 1990s), which has just recently published for the first time in its ten-years' history the comprehensive benchmarking of the national programme effectiveness (see the attached powerpoint file);
 - There are of course some simple, more common sense 'Thumb Rules' for evaluating the effectiveness of this new policy programme even in its first year of implementation. For example, it can be anticipated that before the implementation of this Programme, it would be hardly the case Hong Kong-owned factories in the PRD region would engage in even cleaner production-related assessment and audit at all, not to mention the subsequent implementation of factory-level environmental improvement projects and/or investments. This is already in itself a major achievement this Programme could bring to the benefit of industry as well as the general community.
- (ii) *What would happen to the Environmental Technology Service Providers (ETSPs) and the participating factories in this Programme, if the on-site assessment and subsequent environmental improvement projects at individual factories under the programme subsidy eventually fail to meet the goals/objectives of cleaner production (e.g. air pollution reduction, energy efficiency)? For example, will or should this scenario affect the final subsidy approval by the PMC of the Programme? Are the factories in such case eligible for demanding a refund of any service/consulting fee already paid from the ETSP concerned, given a less-than-satisfactory project performance?*

Our views:

- However, it is understood that, while quite a number of industrial environmental management projects can offer financial and environmental benefits to the

factories in short terms (e.g. the use of energy-efficient lighting system), there are many other projects that require a longer-term project cycle before the real benefits can be evaluated, and the success factors and the contexts for project management vary from one factory to another even in the same industry sector. It would be thus unrealistic at this early stage in setting a generic (or, 'One-Size-Fits-All') set of programme benchmarking indicators that cannot capture the unique settings of each of the 8 targeted industry sectors in terms of on-site assessment and technology demonstration project management. As more experiences will be gained as the Programme is implemented, a knowledge base could be built and further standardization and benchmarking can be considered by the PMC and the HKPC's Quality Assurance team.

- Given the programme objectives are further clarified and the Government's role clearly defined, it would become clearer that the HKSAR Government will act as a facilitator to promoting a renewed culture for cleaner production and continued improvement in industry's environmental performance, while the specific performance guarantee in on-site assessment as well as any subsequent environmental projects should be strictly a commercial issue between the ETSPs and its client factories, and must not be confused with overall policy objectives of this Programme or the facilitator-role of either the EPD and HKPC. HKPC and other Supporting Organizations to this Programme (e.g. FHKI, the Hong Kong Environmental Industry Association, HKEnvIA etc.) with in-depth experience in environmental project management could be considered and invited to provide some general advices and/or training to enhance the participating factories' awareness and preparedness in areas such as Performance Contracting.

(c) Scope of the 4 main areas of services provided under the programme, i.e. awareness promotion, on-site improvement assessment, demonstration projects and verification of the effectiveness of the improvement projects

Awareness promotion: It is highly recommended that, in addition to the promotional programme HKPC may have already designed for this CP policy programme, a better

coordination and/or joint marketing efforts with other existing industry-initiatives on environmental management awareness programs, such as the FHKI's Green Program portfolio like the One Factory-One Environmental Project-One Year program, as well as with similar programmes/initiatives in the PRD/Guangdong region.

On-Site Improvement Assessments: Generally agree with the basic design and vision of this programme component. Two specific suggestions are put forward here below:

- (i) Will the EPD/HKPC consider it appropriate to organize basic simplified training, or provide subsidy on cleaner production auditing training for the qualified Environmental Technology Service Providers (ETSPs), which are supposed to be mainly the assessors and implementers of factory-level cleaner production related environmental auditing, consulting, as well as improvement project management services for the participating factories from the 8 targeted industry sectors, such that the ETSPs will more or less follow a standardized generic methodology in terms of auditing and reporting even though each and every of these service providers will also bring in their respective expertise and skills to the benefit of the participating factories as well as this Programme overall.

- (ii) While it is understood that this Cleaner Production Policy Programme would stand as a HKSAR Government initiative in promoting the cleaner production practices among Hong Kong-owned manufacturers with major industrial operations in the PRD region in Guangdong Province, it has also been the case that Cleaner Production (CP) has been formalized as a major component of Chinese Government's environmental policy programme since the enactment of the *National Cleaner Production Promotion Law* (國家清潔生產促進法) in January 2003 and the proliferation of CP policy programs at the province and local levels throughout the country. This has become now a **reality/hard fact** for both the regulators (i.e. Environmental Protection Bureaus, EPBs and the Economic and Trade Commissions, ETCs) as well as the regulated (i.e. the polluting factories) that if the factory operators fail to satisfy with the environmental improvement requirements as laid down in the various CP-related environmental standards, this means the factories cannot secure their "**License to Operate**" in the region as socially responsible enterprises and they will risk being closed down or forced to relocate away from their

existing sites of operation in Guangdong, which in turn implies potentially major reputational as well as genuine financial risks.

As such, it is from our viewpoint as industry representatives that, beside the cost-sharing arrangement or other benefits from joining this Cleaner Production Programme, the major driver behind the HK-owned factory owners with major manufacturing base in Mainland China (esp. Guangdong) would be the consideration of whether, by joining this Programme, the factories will be given official recognition by both the mainland authorities as well as the EPD that they are fit to survive and be allowed their continued operations and investment in Guangdong after having seriously committed and actually implemented cleaner production and other environmental improvement enhancements.

- (iii) Since 2003, the State Environmental Protection Administration (SEPA) together with major industry associations and research institutes have been drafting and publishing Cleaner Production Standards (清潔生產標準) 25 industry sectors/manufacturing process (e.g. Textiles, Pulp and Paper) (for full-texts of these Cleaner Production Standards as published by SEPA, see <http://www.sepa.gov.cn/tech/hjbz/bzwb/other/qjscbz/>).
- (iv) Training and certification of qualified cleaner production auditors is an essential element for the successful implementation of quality CP projects for this Programme. Again, there is ample room for exploration and collaboration with relevant mainland authorities and industry associations (e.g. the Guangdong Association of Environmental Protection Industry, 廣東省環境保護產業協會) in designing and delivering training courses for interested ETSPs and industry practitioners.

(d) Criteria to be used for selection of the participating factories;

- (i) Will the “on-site assessment” component and the “technology demonstration project” component of the Programme employ both a common set of generic selection criteria (e.g. energy efficiency, industry sectoral composition, and geographical balance) and specific evaluation criteria that suit the specific programmatic nature of these two components respectively? For example, factories



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that are to be selected for on-site assessment are probably based on the potential air pollution improvement potential during and after the CP auditing and improvement measures, and many of these factories may have little or no prior successful experience in project management in terms of environmental performance enhancement.

Similarly, participating factories as potential candidates for environmental technology demonstrations will certainly include those factories that will offer good potential for major improvements in air emission, energy conservation, as well as other stated goals of the Programme. However, from our members' experience as environmental technology and service solution providers, it is understood that these candidates must have at least some prior experiences in environmental projects if we expect to see a relatively smoother demonstration project implementation. In other words, the bar may have to be risen higher for candidate factories for demonstration projects in terms of their senior management support and project implementation capacity.

- (ii) Who will decide on the selection criteria? How the criteria will be subject to review? What is the role of PMC?

(e) The proposed cost-sharing arrangements

We have no particular comment on the presently proposed cost-sharing arrangements for both the on-site assessment component as well as the technology demonstration project component of this Programme, as we understand that such arrangements will be subject to review by the Project Management Committee (PMC) from time to time during the implementation of the Programme.

(f) The proposed industry participation in the Project Management Committee

We have no particular comment on the proposed membership of the PMC except the fact that major environment industry associations and other experts in environmental protection and industrial manufacturing could have been included as co-opt members and/or observers to the PMC so as to provide professional advices and inputs and support to the PMC.



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Last and not least, we would like to emphasize that the successful implementation of this Five-Year Cleaner Production Programme, especially at this early stage, will require open discussion and input from various stakeholders such as environmental industry so as to facilitate a constructive dialogue among the relevant parties of this Programme. At the same time, we as environmental industry representatives with our root in Hong Kong are well aware of how lengthy and complicated the process of discussion and programme development has been for this Programme, the first-of-its-kind in recent history of environmental policy development in Hong Kong, to have finally emerged as a concrete policy programme at this stage, amid the continued suggestions and persistent involvement by many organizations such as FHKI and many friends in the ‘birth’ of this Programme in the past decade. Our association welcome the programme and anticipate to further support whenever possible.

Please convey our views and suggestions above to members of the Panel on Environmental Affairs for their consideration. You are welcome to contact Mr. Alex Chan, our Liaison Officer (telephone no. 2443 8186 / E-mail: alex.chan@dunwellgroup.com) should you need further enquiry and assistance.

Yours sincerely,

Ir. Daniel M. Cheng
President

Encl.

A powerpoint briefing on the latest policy development of Cleaner Production in Mainland China

中國開展清潔生產最新進展 (1)

法制法規建設 Institution Building

國家/中央層面:

- 2004年: <清潔生產審核暫行辦法>
- 2005年: <重點企業清潔生產審核程序的規定>
- 2007年6月3日: 國務院下達<節能減排綜合性工作方案>(國發[2007]15號), 明確提出:
 - ...要加大實施清潔生產審核力度, 並將強制性清潔生產審核的範圍擴大到“沒有完成節能減排任務的企業”

地方層面:

- 2007年止: 全國地方性清潔生產審核配套文件, 共計203份

中國開展清潔生產最新進展 (2)

能力建設 Capacity Building

中介機構

清潔生產諮詢機構 (CP Auditing Units):

- 全國: 共205家

培訓:

- 國家清潔生產師: 6,439人 (自2001年)
- 地方培訓: 48,372人

中國開展清潔生產最新進展 (3)

工業界實施情況

Implementation Status

全國已開展清潔生產審核的工商企業: 6,626家

- 2006年為高峰期:
 - 2006一年審核企業佔歷年總數40.3%
- 針對重點企業的強制清潔生產審核工作得到大力推進:
 - 2004年: 100多家
 - 2005年: 500多家
 - 2006年: 1,483家

中國開展清潔生產最新進展 (4)

工業界實施情況

Implementation Status

清潔生產方案累計：**75,498**個，其中：

- 已經實施：**72.5%** (其中：**2006**年佔歷年**40.5%**)
- **2006**年提出方案：**27,565**個(佔整體**36.5%**)
- 全國實施方案而投入資金：**119**億元人民幣
 - 其中：**2006**年總投資為**55.44**億元(佔歷年**46.8%**)

中國開展清潔生產最新進展 (5)

歷年實施清潔生產而帶來的環保效益

Environmental Benefits of CP Programs in Yr. 2006

(22個省, 自治區, 直轄市, 計劃單列市不完全統計)

節能減排

(Energy Conservation & Pollution Reduction)

- 排水量削減: 4億噸
 - COD: 77萬噸
 - BOD: 90.01萬噸
 - 氨氮: 3,344.44噸
- 鍋爐大氣排放物煙塵, 二氧化碳, 粉塵均有大幅削減

經濟效益

(Economic Efficiency)

- 節能: RMB 52億元
- 減排: RMB 44.2億元

合計: **RMB 96.2億元**

中國開展清潔生產最新進展 (6)

2006年實施清潔生產而帶來的環保效益

Environmental Benefits of CP Programs in Yr. 2006

(22個省, 自治區, 直轄市, 計劃單列市不完全統計)

節能 (Energy Conservation)

- 電力: 8.48kWh (46.8%)
- 煤: 122.81萬噸 (4.01%)
- 油: 6.98萬噸 (63.5%)
- 蒸氣: 53.58萬噸 (47.29%)
- 天然氣: 1323.7立方米 (18.9%)
- 水: 1.77億噸 (35.34%)

減排 (Pollution Reduction)

- COD: 20萬噸
- SO₂: 10萬噸

經濟效益 (Economic Efficiency)

- 佔歷年效益一半
- 約: **RMB 48億元 (2006年)**



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