



Environmental Policy Monthly

Environmental Protection Administration, Taiwan, ROC

Feature Column

Green Mark Jumpstarts Eco-friendly Consumption

Since the launch of the Green Mark ecolabelling system in 1992, the EPA has not only piloted government green procurement, but has also used the Green Mark to join international ecolabelling organizations including the Global Ecolabelling Network (GEN) and the International Green Purchasing Network (IGPN), as well as promote mutual recognition among ecolabelling systems. The EPA is now going all out to promote the Green Mark in the civil sector, integrating the strengths of vendors and manufacturers to ingrain Green Mark concepts in the public mind and jumpstart a green consumption trend.

Years ago the EPA convened scholars, experts and related organizations to discuss plans to promote the Green Mark ecolabel system. The Green Mark encourages manufacturers to reduce their environmental pollution and conserve resources throughout production and sales, as well as raise people’s awareness of green consumption. Since the Green Mark system was implemented on 25 August 1992, through the promotion efforts of environmental groups and development foundations, already 99 specification standards have been set for Green Mark products, and 3,525 products have been approved to use the Green Mark logo.

Leading the World in Promoting Government Green Procurement

Taiwan’s main accomplishments in promoting

ecolabelling include innovative policy, increased numbers of products and specifications, and tangible environmental benefits:

1. Innovative policy

Article 96 of the Government Procurement Act (政府採購法) clearly stipulates that government agencies may specify on bidding invitations a priority on procurement of products approved to carry the Green Mark ecolabel, provided that they are within a 10% price difference compared to other products with the same or similar function. This legislation clearly ranks Taiwan as the first nation to promote government green procurement through legislation. Taiwan’s performance in government green procurement has attracted widespread attention at GEN meetings, and has inspired other nations to follow suit. For example,

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Korea and Japan have already drafted similar government green procurement regulations.

2. Increased numbers of products and specifications

Currently, each year about 700 to 800 products are approved to bear the Green Mark, at a rate three times greater than before 2001. However, this is limited by an annual decrease in funding. Every year specification standards are created for only six new categories of Green Mark products. In order to speed up this process, this year the EPA has already planned to open up the fields of industry, unions can take the initiative to propose recommended Green Mark specification standards. This will work to speed up the rate of Green Mark product specification standards which meet the actual demands of industry.

3. Tangible environmental benefits

Tangible benefits of Green Mark products can be seen in the numbers of products sold. For example, by 2007, a total of 274,344,175 Green Mark packaging products that use recycled paper have been sold. With each of these paper containers weighing an average of 0.75 kg, a total of 205,758 tonnes of these products have been consumed, preventing the felling of 4.11 million trees. Other Green Mark products have equally outstanding environmental benefits in terms of the amounts of water, electricity and resources they save as well as reductions in greenhouse gases.

Promoting Mutual Recognition through GEN and IGPN

The Global Ecolabelling Network: The Environment and Development Foundation represented the EPA as a founding member of GEN in late 1994. Current GEN managing director Dr. Yu Ning served three terms as director and one term as chairperson of the organization, during which she greatly contributed to the development of GEN in the following ways:

- Promoted mutual recognition: Starting with Canada, and followed by the US, Japan, Thailand, Korea, and later New Zealand, and Australia, with the Czech Republic and the Ukraine in recent years.
- Led the development of common core standards: Beginning with cooperation between Canada and Taiwan, followed by Japan, Thailand, Korea, and later the Philippines, Hong Kong and Indonesia.
- Served as an expert representing GEN to attend meetings related to setting the ISO14024 international standard, including the stages of discussion, application, and revision of the draft standards.
- Held GEN board of directors meetings in 2001 and 2002, as well as international conferences in 2000 and 2005.
- Represented GEN on trips to the Philippines, Indonesia, Sri Lanka and Vietnam to share experience about ecolabelling and government green procurement.
- Represented GEN at the UN's World Summit on Sustainable Development and other international events to advocate GEN concepts.
- Assisted GEN in securing UNEP funds to promote ecolabelling systems in developing countries.

The International Green Procurement Network: On behalf of GEN, Dr. Yu Ning was entrusted to serve as a technology advisor at IGPN since its establishment in 2004. The main activities of IGPN include promoting the idea of green procurement at various nations' green product expositions, forums and training seminars. The group aims to create business opportunities and educate the public by promoting green procurement in the public and private sectors. Additionally, the EPA will be holding the 2007 International Conference on Green Products on 13-14 November 2007 together with IGPN and GEN, inviting important persons from these two groups as speakers for the event as well as sponsoring representatives of related organizations from other nations in Southeast Asia to visit Taiwan for the event.

Addressing Industry and Public Needs to Promote Ecolabelling

Looking back on the promotion of the Green Mark over the years, the system has expanded from government green procurement to enterprise green procurement. This has impelled related industries to put forth more environmentally preferable products and likewise increase people's rate of spending. Continuation of this trend, however, requires more consideration at the following levels:

1. Increase incentives for businesses to apply for the Green Mark (financial incentives, subsidies, or policy benefits). Simplify certification procedures.

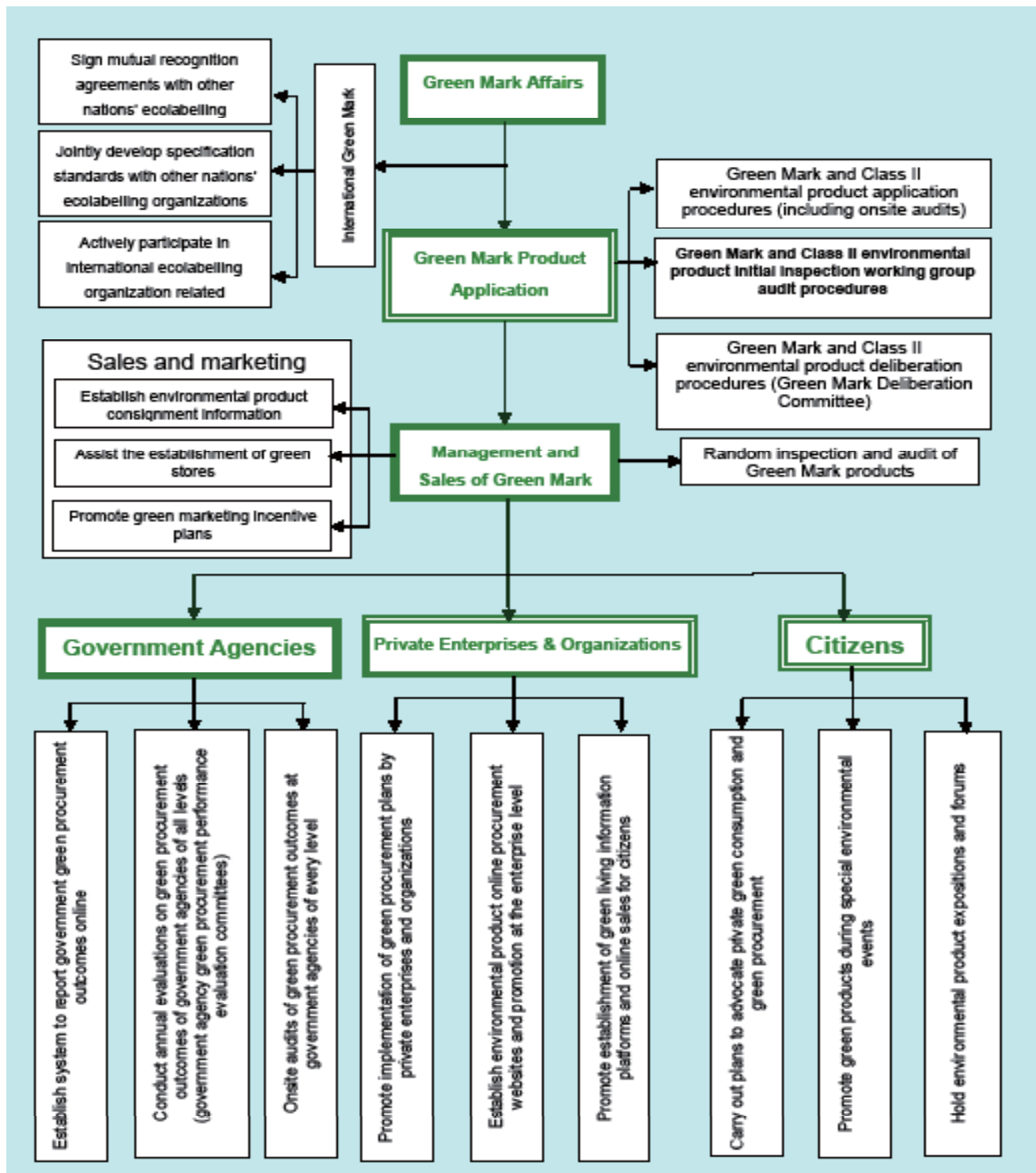
Emphasize comprehensiveness, credibility and scientific methodology of the Green Mark when promoting green procurement at the private level so as to maintain a consistent level of leadership.

2. The following measures should be adopted to increase the number of categories of Green Mark products and raise the visibility of products on the market: (i) create additional product categories by subdividing existing categories; (ii) evaluate and revise existing specification standards – if

enterprises cannot conform, make appropriate revisions according to manufacturers' demands; (iii) expand service categories including hotels, tourism, delivery, and car washing services. The EPA has referenced domestic and foreign promotion trends in its plans to set Green Mark standards for hotels in the near future.

3. Evaluate and revise government green procurement regulations and measures to expand scope of applications, including (i)

 Framework of Action for Promoting the Green Mark



- expand labor service categories and construction related procurement; (ii) expand the system to include government contracted businesses; (iii) increase the number of companies with products in the designated categories; (iv) implement a procurement prioritization system with Class I being Green Mark products, and Class II and III being environmentally preferable products.
4. Encourage vendors to set up green shops to increase visibility of the Green Mark product market. Make it more convenient for citizens to purchase Green Mark products so as to extend its sphere of influence. The EPA will encourage green sales by choosing model green shops or businesses to receive "Green Marketing Awards."
 5. Integrate green consumption information. Currently, green consumption information is scattered on different websites, making it hard for people to look up Green Mark product information. The EPA strives to integrate environmental product information and establish portal websites that provide convenient channels for citizens and enterprises to use and direct inquiries. These measures are designed to make green consumption information more accessible, and ensure that environmental products are suited to people's lives.

Climate Change

Relationship between China's Economic Development and Worsening Global Warming

The world has watched China's bounding economic growth in recent years, as well as the greenhouse gases and environmental pollution brought about by China's increasingly energy-intensive industry. Statistics show that China's CO₂ emissions had already surpassed the US in 2006 to become the world's largest CO₂ emitter.

China's rapidly growing economy has experienced a 9.5% growth in GDP over the last 20 years, resulting in a six-fold growth in overall GDP. Having the advantage of vast manpower and land resources, China is set to become an important player in the global economy. However, this new role will be accompanied by a greater increase in energy consumption and greenhouse gas emissions. The International Energy Agency (IEA) indicates that every two years China's increase in electricity generation equals that of the total electricity generation of France and Canada.

Since 2002, China's economy has received a considerable boost due to investments in energy-intensive industries such as steel, cement and aluminum electrolysis, resulting in a large increase in energy consumption as well as greenhouse gas emissions. IEA statistics show that worldwide combustion of fuel generated 24.98 billion tonnes of CO₂ emissions in 2003. The US alone accounted for 5.72 billion tonnes and China accounted for 3.72 billion tonnes. In December 2006, the IEA predicted that China would surpass the US to become the world's largest producer of CO₂ emissions by 2010 - ten years earlier than the IEA's former predictions.

While the growth of world energy consumption slowed down in 2006 -- dropping from a 3.2% increase in 2000 to a 2.4% increase in 2006 -- China's energy

demand in recent years has been on a continually rising trend. China's growth in energy consumption increased by over 8% in 2006 alone, accounting for over 15% of world energy consumption. Greenhouse gas emissions have increased as well.

The Netherlands Environmental Assessment Agency (NEAA) released a report in June 2007, indicating that China's CO₂ emissions in 2006 had already surpassed that of the US. The figures also indicate that US CO₂ emissions were 2% greater than that of China in 2005, while China's CO₂ emissions topped the US by 8% in 2006.

Efforts to reduce greenhouse gas emissions are not entirely disadvantageous to China. China's large greenhouse gas emissions have prompted several developed nations to invest in China's greenhouse gas reduction initiatives and purchase emission reduction credits. According to a World Bank report in October 2006, China is about to become the largest seller on the global greenhouse gas trade market, accounting for 60% of credit transactions on the market through the first nine months of 2006.

Even though its per capita emissions account for only 61% of the world's average, or 0.21 of that of OECD countries (year 2000 data), due to its rapid economic development, large energy consumption and greenhouse gas emissions, China's total greenhouse gas emissions have surpassed those of the United

States in becoming the highest in the world. The pressure for China to reduce its emissions is also increasing, both domestically and internationally.

To reduce energy consumption and greenhouse gas emissions, China has set the target during the Eleventh Five-Year Plan that by 2010, per capita GDP will double that of year 2000, while per unit GDP energy consumption will drop by 20%, or 4%

annually. However, as witnessed in China's Ninth and Tenth Five-Year Plans, energy reduction targets are not being reached. Its 2006 per unit GDP energy consumption only went down by 1.23%, far short of the 4% target. Unless it can take major systemic or institutional measures to reduce energy consumption, it will have difficulty reaching its set targets.

Waste Management

Taiwan Protests UN Basel Convention Lockout

The UN Department of Safety and Security refused to allow the Taiwan delegation into the sixth session of the Open-ended Working Group of the Basel Convention. Failing to gain any real progress after several attempts to request assistance from the Basel Convention Secretariat, the delegation held a press conference at 4:00pm on 5 September 2007, and followed up with a statement of protest to the Secretariat.

From 3~7 September 2007, the Basel Convention Secretariat held the sixth session of the Open-ended Working Group of the Basel Convention (OEWG6) in Geneva, Switzerland. Taiwan has sent delegations to attend these sessions for years. Not only has Taiwan participated in related meetings but has also strengthened exchanges with delegations from other nations, sharing successful experiences in controlling the transboundary movement of hazardous waste. This year was no exception.

On 2 September 2007, the Taiwan delegation arrived at the meeting venue to sign in. However, the UN Department of Safety and Security barred them from registering on the grounds that "internal regulations had changed" to no longer recognize Taiwan passports. When the Taiwan delegation requested assistance from the Basel Convention Secretariat and other nations' representatives, the Secretariat immediately agreed to help Taiwan request clarification from the UN Department of Safety and Security. The Secretariat furthermore asked the UN Headquarters in New York to make a ruling on this case. Meanwhile, the Taiwan delegation requested assistance from the Taiwan Economic and Cultural Office (TECO) in Geneva.

On 3 September 2007, after the meeting began, international ally representatives issued a statement in the meeting testifying that Taiwan's delegations have made great contributions in past years and should not be denied the opportunity to participate. The Convention Secretariat legal division chief stated that this matter mainly concerns the UN Department of Safety and Security's refusal to allow Taiwan's

registration on the grounds that it does not recognize the Taiwan passport. The Secretariat based its decisions on the UN agreement (One-China Principle) and past examples in handling this issue with the UN Headquarters in New York.

On 4 September 2007, the meeting failed to reach a decision on this matter. The Director General of the UN Office at Geneva stated that the New York Headquarters did not agree to allow the Taiwan delegation participate. However, it did not issue any documents saying so.

On 5 September 2007, upon returning to the meeting to call on the Secretariat, Taiwan's de-facto ambassador Shen Lyushun (沈呂巡) found that no progress had been made, and resigned to making a handwritten banner of protest, "UN Steps Up Its Injunction Against Not Only Taiwan Reporters, but Also Duly Invited Taiwan NGO Experts." On 4:00 pm of that day, a local press conference was held, after which the delegation was escorted by TECO in Geneva officials to the convention Secretariat to issue a statement of protest. The delegation returned to Taiwan on 9 September 2007, discouraged about not yet having received any positive response after all their struggles in Geneva.

Since Taiwan initiated its bid to enter the UN, there have been many occasions on which international organizations have refused to recognize the Taiwan passport. Now even the Basel Convention--a non-political international environmental convention under jurisdiction of the UN--refuses the participation of a Taiwan delegation. Some suspect this is the result of political pressure from China behind the scenes in the

UN. The EPA has gone through diplomatic means and international allies to protest the UN's inappropriate handling of this situation. The EPA has also issued

strong opposition against allowing "political pollution" to taint international environmental affairs.

Water Quality

Household Wastewater Effluent Standards Tightened

Effluent standards dealing with household wastewater are in urgent need of review in order to alleviate the burden of pollution on water bodies. The EPA promulgated revisions to the Effluent Standards on 3 September 2007 to introduce more appropriate design and management of household wastewater treatment facilities.

The EPA's current effluent standards for household wastewater were put into effect in 1998. Wastewater treatment facilities have greatly increased since then with a wide variation in designed treatment efficiencies. There is thus a need to evaluate the introduction of new designs and management methods. The EPA deliberated the treatment capacity of the Building Wastewater Treatment Facility Design Technical Standards (建築物污水處理設施設計技術規範) and revised the Effluent Standards pertaining to household wastewater.

The revisions cover two main aspects: Neighborhood and public sewer systems and building wastewater treatment facilities standards and applicable targets. Originally, areas were divided according to water volume into three categories: Large (>250 CMD), Medium (50~250 CMD), and Small (<50 CMD). These are now fused into two categories: High (>250 CMD) and Low (<250). Original water volume standards have been retained for High (originally Large) and

Low (originally Medium) water volume facilities. However, standard limits for facilities under 50 CMD (originally Small) have been raised and merged into the Low category.

After revisions, the BOD control standard for Small water volume facilities has been tightened from 80 mg/L to 50 mg/L. The COD standard has been tightened from 250 mg/L to 150 mg/L, and the suspended solids standard has been tightened from 80 mg/L to 50 mg/L. For community or public sewer systems, the revised control standards are applicable from the date of promulgation. The revised control standards are applicable for building wastewater treatment facilities with construction permit applications submitted after 1 January 2009.

The EPA calls on all circles to regularly clean building wastewater treatment facilities and maintain their normal operation to ensure that they function to reduce the impact of wastewater on river environments.

Air Quality

Plastic Tape Industry VOC Emissions to Be Regulated

High amounts of VOCs present in raw materials used in the production of plastic tape cause substantial environmental pollution over the long term. The EPA plans to set standards to control these substances, first targeting 29 companies that use over 50 tonnes of raw materials containing VOCs.

There are about 70 manufacturers of plastic tape products in Taiwan. These companies are responsible for the emission of 29,500 tonnes of volatile organic compounds (VOCs) each year, which makes up 9% of stationary pollution source VOC emissions. The main source of VOC emissions from this industry is from VOCs in raw materials used during production including solvents, adhesives, and release coatings. VOCs are released into the air during rolling, application and drying processes.

The EPA states that the main ingredients of these VOCs are ethyl acetate, toluene, heptane, methyl

ethyl ketone, and butanol. Prolonged exposure to these substances can damage the liver, suppress the central nervous system, damage nerve tissue and even cause permanent brain damage. The maximum increment reactivity (MIR) of toluene and butanol is 2.7, meaning that they have a high ozone generation potential. The environmental impact of pollutants from this industry cannot be ignored, and the EPA will set standards to provide effective controls.

Due to the wide variation in the scale of companies in this industry, the EPA prioritizes control of those businesses that use over 50 tonnes per year of raw

materials containing VOCs (a total of 29 companies). Controls will be based on the amount of raw materials used to determine whether emissions from production should be collected in enclosed or local vapor collection systems. This regulation should markedly increase the effectiveness of exhaust collection, improve fugitive emissions and enhance the treatment efficiency of follow-up emission control facilities.

This standard also refers to existing control technology development standards by requiring 90% treatment efficiency of pollution prevention facilities. For larger scale operations, VOC emission standards should comply with a 2 kg/sec rule. In addition, to effectively keep track of pollution source operation and pollution emission status, the standards also stipulate regulations on various kinds of important raw materials, including usage, emission calculations, monitoring, as well as the installation, recording, and

calibration of prevention equipment.

The EPA states that it first convened the Ministry of Economic Affairs' Industrial Development Bureau and local environmental protection agencies to discuss these standards. This was followed by a preannouncement of draft standards and public hearings to include the views of all circles before the final standards are promulgated. The standard currently covers plastic tape manufacturers, most of which have already installed prevention equipment to treat their production emissions. Thus the standards will not pose a great impact on these businesses. However, overall VOC reductions will be cut by up to 24,000 tonnes. Additionally, as VOC air pollution control fees are already being collected, if companies can reduce emissions, they can also reduce the amount of money they have to spend. Therefore this standard will create a win-win situation.



Table: Plastic tape manufacturers and VOC emissions

Annual usage of raw materials containing VOCs	Companies	Percentage of VOC emissions from plastic tape industry
≥400 tonnes	18	92%
<400 tonnes and ≥50 tonnes	11	7%
<50 tonnes	41	1%

Air Quality

Odorous Pollutant Standards Revised for Stationary Pollution Sources

As odor complaints have comprised over half of public air pollution complaints in recent years, the EPA has recently promulgated revisions to standards on the emission of foul or noxious odors, which have not been revised for over a decade.

Based on EPA statistics, the number of public complaints related to air pollution increased from around 33,000 in 2002 to 40,000 in 2006. Of these cases, odor was the primary complaint in 53% of air pollution complaints in 2002. This percentage soared up to 77% by 2006, attesting that odor pollution has become the focus of public complaints.

Upon analysis, the EPA has found that most cases of odor complaints are located in residential-commercial mixed zones, or near industrial or agricultural areas. Residential areas have come in closer contact with pollution sources over the years due to zoning changes or different land uses, resulting in an increase in odor complaints. Air pollution emission

standards on foul or noxious odors from stationary pollution sources have not changed for over a decade since the regulations were revised in 1992, and some of the standard values do not match today's expectations. For these reasons, the EPA promulgated revisions to air pollution emission standards on odorous pollutants from stationary pollution sources on 11 September 2007.

The content of this revision to odor emission standards focuses on stack emissions, with consideration given to control trends of other advanced nations. Statistical analysis of domestic emission stack odor testing over the years shows that the height and distribution of buildings in Taiwan have simplified stack height

standards from Class V to Class III, stipulating stricter standards on stack heights on a scale ranging from 1 to 12.5 times.

Considering stack heights over 100 meters are more effective at dispersing emissions, it has been added that those stationary pollution sources with such stacks can follow air quality models to estimate compliance with stack emission concentration standard values for perimeter standards within the zone of influence. After receiving EPA approval, these enterprises can use their concentration as the standard. As for perimeter emission standards, emission standards for newly installed pollution sources have been tightened by

a factor of 30 as these establishments can draw up appropriate plans for pollution prevention facilities at the time of construction planning to prevent the generation of odors.

Allowing an ample grace period for existing pollution sources to respond, the EPA has set existing pollution source stack standards to take effect one year after date of promulgation. Industries are asked to take efforts in advance to correct aspects that do not comply with the revised standards. It is estimated that industrial odor emission concentrations will be cut by over 30% after the revised standards take effect.

Recycling

Green Packaging Designs Awarded for Their "Eco-Creativity"

On 11 September 2007, the EPA awarded prizes to outstanding green packaging designs. From 10 award-winning products you can tell that many environmental concepts have already been integrated into product packaging. This is expected to start a trend in green packaging.

This year the EPA held the first "Green Packaging Design" contest, inviting packaging design and environmental related scholars and experts to serve on the selection committee. In the category of gift boxes, 5 winning designs were chosen from 18 product designs entered in the contest. As for other product categories, 5 winning designs were chosen from 29 contest entries. The purpose of the contest was to encourage the production and design of green packaging products for consumers to consider when shopping.

The EPA indicates that the selection criteria were green design (counting for 60%, including packaging reduction, toxic substances reduction, reuse and recycling) and creativity (counting for 40%, including style, structure, materials and visual appearance). The winning product designs mainly sought to reduce

packaging, and all designs effectively reduced the amount of unnecessary risers commonly used in conventional packaging methods to enlarge gift boxes. The designs also reduced the use of inks likely to create environmental pollution. Most products emphasized reuse of packaging materials such as attractive and durable bags or containers; others emphasized the use of single materials, making recycling much simpler. Each design had its own special attributes.

The EPA points out that packaging used on gift boxes and computer disc products has been markedly reduced since the Restriction on Excessive Product Packaging was implemented on 1 July 2006. It is estimated that this measure will reduce the use of packaging materials by 6,900 tonnes per year.



- ▶ This winning Hsinyi Fengching alcohol gift box design features only a minimal amount of paper and glass, both of which can be recycled.

EPA First Government Agency to Obtain ISO9001 for Construction Audits

Running at the head of the pack, the EPA's engineering assessment working group has received ISO9001 quality management system certification, making it the first government organization to receive ISO certification for engineering quality management assessment.

The EPA's construction evaluation working group has obtained ISO 9001 quality management system certification. Dr. Gao Yi Min (高毅民), managing director of the Taiwan branch of the British Standards Institution, called on the EPA on 20 September 2007 to issue certification. EPA Minister Winston Dang presided over the certification ceremony.

Minister Dang spoke on how Taiwan has successfully raised the quality of construction on environmental public infrastructure of "NIMBY facilities," including sanitary landfills and incineration plants, which are now regarded as good neighbors in the public eye. The EPA established the Construction Evaluation Working Group in 2002 with the deputy minister as the convener, in accordance with the "Engineering Construction Evaluation Working Group Organization Guidelines" promulgated by the Public Construction Commission, Executive Yuan. This working group has actively counseled and audited environmental facility construction works carried out or assisted by the EPA. The working group oversees construction competent authorities, project initiators and contractors to ensure the smooth functioning of a self-regulated three-tiered quality management system. Since the establishment of this system, already 255

audits have been conducted to evaluate the quality of construction at environmental facilities. Auditing performance has been outstanding, earning top ranking for two consecutive years in 2005 and 2006 during performance evaluations conducted by the Public Construction Commission, Executive Yuan.

Minister Dang stated that although this venture has added a significantly greater workload on colleagues compared to private enterprises that obtain ISO9001 certification, modern governments should learn from enterprises by bravely pursuing change and accepting challenges to guarantee the quality of construction of environmental facilities and establish standard operation procedures in order to achieve standard and objective evaluation goals. The EPA has thus firmly decided to create a leading example for the nation by obtaining this certification.

From 2005, the EPA has continually established related documents and standard operating procedures, investing vast human resources to design and create a total of 47 standards and documents. The EPA also holds educational training, internal evaluation training, management inspection meetings and weekly and monthly evaluations for making improvements. Minister Dang admits that it hasn't been easy to meet the strict accreditation requirements of ISO9001.

Air Quality

Gas Station Vapor Recovery Equipment Reaches 100% Installation Rate Nationwide

After ten years of guidance and enforced controls, Taiwan has become the first nation to install vapor recovery equipment at all domestic gas stations. To prevent forced filling of gas, a practice that not only decreases vapor recovery efficiency but also increases the chances for vapor recovery equipment to malfunction, the EPA calls on all citizens to ask gas station attendants to stop filling after the automatic stop device activates.

After ten years of guidance and control measures since the EPA began promoting the gas station vapor recovery policy in 1997, finally all 2,594 gas stations in Taiwan have installed vapor recovery equipment. This makes Taiwan the first nation in the world to reach 100% installation rate of vapor recovery equipment at all domestic gas stations. Close behind

are Hong Kong, Beijing, and Korea, all of which are drawing from Taiwan's example in promoting gas station vapor recovery policies.

With universal installation of vapor recovery equipment, many citizens have commented that heavy fumes no longer exist at gas stations. Statistics taken from test results confirm that since gas stations

have installed vapor recovery equipment, there have been marked decreases in attendants' exposure to gas vapor, vapor concentrations at vehicle tanks and vapor concentrations in the surrounding environment. Based on estimates of the installation and operation of vapor recovery equipment at domestic gas stations, every year this equipment reduces up to 21,500 tonnes of VOC emissions and about 87 tonnes of carcinogenic benzene, as well as benefits the health of over 20,000 gas station attendants, 1.2 million



▶ Taiwan's gas stations have reached a 100% vapor recovery equipment installation rate

people residing near gas stations and 19 million vehicle owners in Taiwan.

The rate of qualified gas station vapor recovery equipment has also increased by a large margin. From 1998 to 2004, only 59%~78% of vapor recovery equipment was functioning up to standard. After regulations were revised in 2005 to target all gas stations, the percent of vapor recovery equipment up to standard reached 84% in that year alone. The qualified rate increased to 91% in 2006 and to 92% by the end of July this year (2007). This shows that most businesses had already attained proficiency in operating vapor recovery equipment.

The EPA reminds gas station attendants and customers to stop filling up vehicles once the automatic stop device activates. By no means should they continue to force-fill gas as this decreases the efficiency of vapor recovery and increases chances for vapor recovery equipment to malfunction. So when asked by gas station attendants how much gas you want, remember to reply, "When the pump stops," instead of "Fill 'er up."

Recycling

NCCU Wins College Recycling Debate Contest

To stimulate the younger generation to care about environmental issues, and to become the next leaders in environmental protection, the EPA recently held the environmental cup college resource recycling debate contest. Thirty-two teams registered to participate.

A total of 32 teams participated in the EPA's first environmental cup nationwide college resource recycling debate contest. The three days of intense debate not only hammered out recycling issues but also brought everyone's debate skills into full play. National Chengchi University (NCCU) took first place. The EPA held a contest closing ceremony and award ceremony on 16 September 2007, with EPA Deputy Minister Chang Teng-feng present to personally award the top performing teams.

This year's debate issues were chosen by representatives from the competing schools. The topics were drawn from a list of issues solicited and voted on in public over the Internet. The three topics of debate were "The financial responsibility of resource recycling and treatment in Taiwan should be on the consumer/producer," "Taiwan's recycling system should be operated by the government/private sector," and "Deposits/awards incentives increase public willingness to recycle." The debate organizer held a briefing on the debate topics before the contest with related experts and scholars present to provide

explanations and related information. This gave contest participants a well-rounded understanding of the environmental issues under discussion.

The debate contest winners were NCCU in first place, Hsinchu Campus Friends (comprising National Tsing Hua University, National Chiao Tung University, NCCU, Feng Chia University, and Fu Jen Catholic University) in second place, and Sponge Bob Team (National Taiwan University and NCCU) in third place.



▶ College resource recycling debate contest winners

News Briefs

Discharge of Cooking Steam into Sewers Banned from October

The EPA has announced that discharge of cooking steam into sewers or otherwise emitting oily smoke or odors constitutes air pollution. From 1 October 2007, food and beverage enterprises regardless of size, ranging from street vendors and snack shops to large restaurants, fast food chains and hotels are all equally subject to penalties from local environmental agencies with fines ranging from NT\$100,000 to NT\$1,000,000. The fines for households found engaging in such violations range from NT\$5,000 to NT\$100,000.

Battery Recycling and Treatment Standards under Revision

On 29 September 2007, the EPA issued a preannouncement of revisions to the draft Dry Cell Battery Recycling, Storage, Clearance, and Treatment Methods and Facility Standards (廢乾電池回收貯存清除處理方法及設施標準) to increase the effectiveness of battery recycling. The draft revisions include smelting as a treatment method for waste dry cell batteries, clearly stipulating the types of metals applicable to high temperature smelting processes in the treatment of waste dry cell batteries. Such processes are restricted to manganese-zinc batteries and non-button alkaline manganese dry cell batteries with mercury content under 5 ppm and batteries may comprise no more than 1% of smelter contents. This measure will help prevent pollution and reduce the environmental loading of such operations.

Waste Import/Export Permit Application Fees Revised

To make the fee collection system more comprehensive, the EPA has reevaluated application fees for waste import and export permits. On 27 September 2007, the EPA promulgated revisions to the Waste Import and Export Permit Application Fee Standards (廢棄物輸入輸出許可申請收費標準), setting the fee standard to NT\$9,000 for each application. Additional fees will not be collected for applicants asked to provide additional documents or for changes made to their basic information. The EPA emphasizes that when enterprises apply for waste import/export permits, they should carefully review the content of all application documents to avoid having to make corrections and to prevent delays that may cause lost business opportunities. Detailed information on fee collection standards are available online at <http://www.epa.gov.tw/main/index.asp>

Chang Feng-teng Appointed EPA Deputy Minister

The President appointed former Kaohsiung Environmental Protection Bureau Director Chang Feng-teng (張豐藤) as deputy minister of the EPA. Chang had just finished his term as director of the Kaohsiung EPB at the end of July, after serving in that position for eight years and eight months. A native of Hsinchu born in 1961, Chang Feng-teng graduated from the National Taiwan University Department of Mechanical Engineering, later to receive his masters and doctorate in mechanical engineering at UCLA. Chang was formerly employed as an environmental engineer for Sinotech Engineering Consultants, Inc., and as associate professor at Chung Yuan Christian University, National Pingtung University of Science and Technology, National Kaohsiung First University of Science and Technology, and National Sun Yat-Sen University.

Vendors Required to Install Recycling Facilities for Lighting Waste

To reinforce the recycling of lighting waste, the EPA announced the Requirements of Lighting Vendors to Install Lighting Waste Recycling Facilities and Other Requirements (照明光源販賣業者應設置廢照明光源資源回收設施及其他應遵循事項) on 3 September 2007. From now on, vendors are required to adhere to the following measures:

- 1) Lighting vendors must install recycling facilities for the public to recycling lighting waste and should maintain such recycling services during all business hours. Lighting waste vendors may not refuse to collect and transport waste lighting from consumers regardless of whether they made a purchase or any other reason.
- 2) Regulations must be adhered to regarding the appropriate sorting, storage, recycling, and clearance of lighting waste, and the recycling, clearance and treatment of lighting waste should be handled by industries engaged in recycling and treating mandatory recyclables and organizations stipulated under Article 5 of the Waste Disposal Act.



- ▶ *Lighting vendors required to install light waste recycling facilities*

New EPA English Website Unveiled

A brand new version of the EPA's English website was launched on 28 September 2007. The new website has not only completely reorganized all environmental information, but has also provided a navigation function to ensure a trouble-free Internet experience and increase Taiwan's environmental image in the international arena. The content of the new English website is now more diverse and up to date including environmental news in Taiwan, important environmental issues, environmental regulations, environmental statistics, publications, air quality inquiry network, and information on environmental services.

The website provides a greater variety of environmental information by establishing categories and framework of related information especially for international environmentalists and overseas Taiwan citizens. It also provides consistent operating interface and browsing functions, and the webpage framework design reduces overlapping of information and greater convenience. Check out the EPA website at <http://english.epa.gov.tw/en/index.aspx>

 [New EPA English Website](http://english.epa.gov.tw/en/index.aspx)

Ten Model Green Shops to Be Granted Awards

A Green Shop logo is now available to make it more convenient for the public to find Green Mark products and other environmental products, as well as to assist vendors to make the switch to sell more environmentally friendly products. Those who would like to label or sell Green Mark or other environmentally preferable products can contact the EPA or their local EPB to receive a Green Shop logo. The EPA will also hold a green sales award, accepting registration from now till 19 October 2007. Ten stores will be selected, with criteria including policies, measures, and accomplishments in the respective percentages of 10%, 65% and 25%. Award moneys range from NT\$50,000 to NT\$200,000. The EPA calls on all department stores, hypermarkets, supermarkets, chain stores, and retailers to actively participate in creating an environment for green consumption. More information can be found online at <http://www.greenmark.org.tw/greenprize/index.asp>

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