



Feature Column

Environmental Technology Parks to Be Located in Hualien and Kaohsiung Counties

The Environmental Technology Park Plan has taken the spotlight. After recent on-site surveys by a cross-ministerial steering committee of specialists and academia, the assessment process is done and optimal park locations have been chosen. The southern park location is in the Benjhou Industrial Park in Kaohsiung County, while the northern park is in the Fenglin Development Zone in Hualien County. If everything goes as planned, construction on Taiwan's prototype renewable resource recycling Environmental Technology Parks will begin in July 2003.

Attractive Subsidies Spur Competition Between 7 Cities and Counties

The EPA has promulgated the Environmental Technology Park Plan as a means of promoting recycling and reuse of renewable resources. The plan is expected to attract

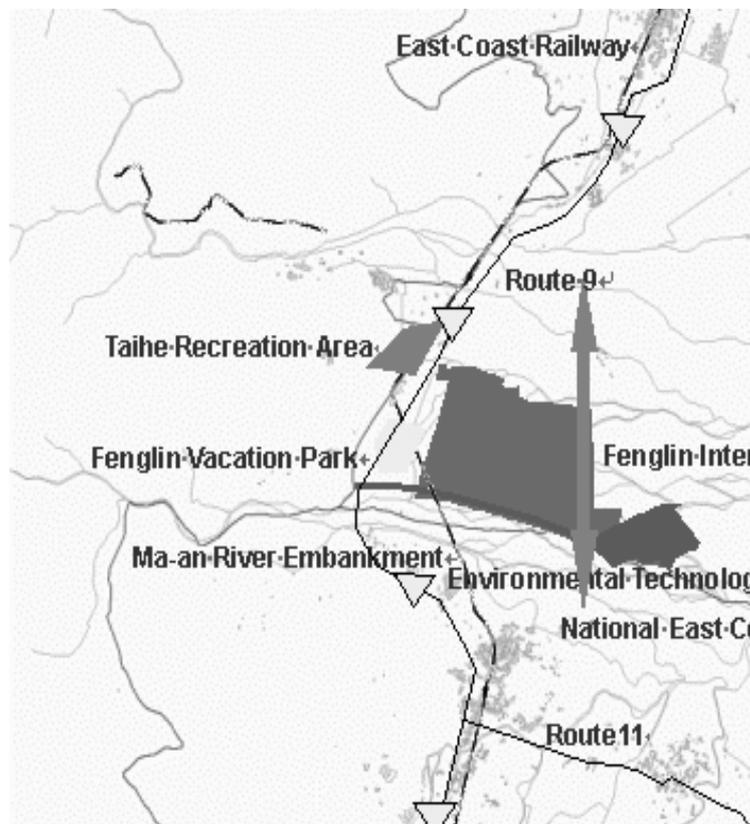
environmental technology firms and stimulate research and innovation in domestic environmental production technology that adopts ecological cycles and material recycling throughout production. Each park will essentially create a zone based on sustainable ecological cycles, and create market demand for green technology and products, as well as develop core green technology and industry.

The goal is to usher in environmental technology, industry and products that are compatible with demands for industrial-ecological cycles and local production, so as to promote a balance between regional production, lifestyles and the environment.

Based on selection criteria set by the EPA, the selection process proceeded in three stages. The first

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Hualien County Environmental Technology Park Location

stage was a paper audit. After passing this initial audit, applicants qualified for the second stage, which entailed an on-site inspection. For this, committee members made a grounds survey of the proposed park locations. The final stage was a multipart evaluation, after which the optimal locations were chosen.

As the Environmental Technology Park Plan provides many bonus incentive measures to firms that set up within the park, many local governments expressed a high degree of interest in this plan when the EPA began the screening process on October 25, 2002. Up until the application deadline on December 25, 2002, a total of seven cities and counties had submitted applications to establish parks in their area. These seven areas were Tainan City, Tainan County, Kaohsiung City and Kaohsiung County in the south; and Hualien County, Keelung City and Hsinchu County in the north. No applications were received from city or county governments in central Taiwan.

Hualien and Kaohsiung Counties Prevail With Superior Design Concepts

The seven county and city governments that participated in the screening process were first required to pass a written audition and on-site inspection by a cross-ministerial steering committee. The next stage entailed a multipart examination and screening, after which the optimal park sites were finally chosen. After two intensive days going over written auditions, steering committee members completed on-site inspections within four days, traveling around to six of the original seven counties and cities after Hsinchu County dropped out of the bid. The multipart examina-

tion was held on January 21, and the steering committee selected the best site for each region according to the total accumulated scores of each participating city and county.

...if everything goes smoothly, construction on Taiwan's first Environmental Technology Park will commence in July.

It is anticipated that the many benefits included in this plan will stimulate prosperous local economies. In principle, one park location will be chosen for each region in northern, central and southern Taiwan, and thus competition has been very intense. Many county chiefs and city mayors have all personally come forth to lead county and city governments to participate in the paper audit briefings, including Kaohsiung County Chief Yang Ciou-sing, Tainan County Chief Su Huan-jhih, Tainan Mayor Syu Tian-cai, Keelung Mayor Syu Cai-li and Hualien County Deputy Chief Jhang Jiou-chu. As the Kaohsiung Mayor was overseas at the time, his place was filled by the Kaohsiung Municipal Government Department of Environmental Protection Director Chang Feng-teng. Hsinchu's Bureau of Environmental Protection Director Wu Jian-ci represented Hsinchu County at the audit briefing.

As for a southern park, Kaohsiung County Government took first place, with Tainan City as a backup choice. In the north, Hualien County was awarded first place and no backups were selected. In the south, Kaohsiung County's Benjhou Industrial Park was chosen for its uniqueness in being owned by the county government and in already having

complete public infrastructure. Another plus is that the county government had already formulated a long-term comprehensive development plan for the whole zone. Also, compared with other counties and cities, there is a greater environmental burden on the land around Kaohsiung County. Benjhou Industrial Park has already installed a hazardous industrial waste incinerator and final disposal facilities, which can be easily integrated with enterprises within the park, and can improve efficient grouping of environmental industries in the park. Moreover, the county government team is highly determined and willing to cooperate with plans – another reason that it gained so much support from the committee.

As for the northern park site, Keelung City, Hsinchu County and Hualien County all proposed plans, but Hsinchu County dropped out of the competition just before the on-site survey. Hualien County's proposed site in the Fenglin Development Zone made a lasting impact on the steering committee because the county government had already devised long-term comprehensive development plans for the entire region, and because the project team is highly motivated to carry through with this plan and has strong support from local representatives. This site won the most support from the committee and was chosen as the location for the northern region park.

Construction to Commence in July

Based on new plans set forth by Kaohsiung and Hualien County governments, firms established in the southern and northern Environmental Technology Parks will have the following development objectives to: integrate with academic groups to assist in upgrading industrial technology, attract internationally renowned environmental indus-

tries to set up in the park, attract domestic industries dedicated to develop e environmental technology, stimulate research in industrial-ecological cycles, and promote domestic environmental reconstruction industry.

According to the timelines submitted by Kaohsiung and Hualien County governments, core briefings will be given in Taiwan and abroad in March and April, to invite firms to establish operations within the parks. The EPA will cooperate in the search for firms based on the requirements of each park by initiating liaisons with AmCham, the European Chamber of Commerce in Taiwan and other foreign chambers of commerce in Taiwan. The EPA is determined to ensure the successful promotion of the search for firms, attract outstanding green industries to set up within the parks, foster the development of national resource recycling industries, and stimulate local economies.

The Kaohsiung County government's proposed park site, the Gangshan Benjhou Industrial Park, is currently owned by the county government, and therefore it has relatively more time to prepare for the bidding and construction stages. In contrast, the Hualien County government must first carry out land zoning and environmental assessments and therefore it will have a more difficult time keeping up with the projected work schedule.

The EPA indicated that since site locations have already been determined, the respective county governments will now begin carrying out related work such as designing and installing hardware, searching for firms, and developing areas adjacent to the park. The two county governments are required to finish revisions to their plans by February 15. Once the final plans have been approved by

the steering committee and ratified by the Executive Yuan, if everything goes smoothly, construction on Taiwan's first Environmental Technology Park will commence in July.

General Policy

President Chen Signs the Taiwan Declaration on Sustainable Development

President Chen recently attended the Declaration Assembly for the First Year of Sustainable Development in Taiwan, at which he encouraged the people of Taiwan to endeavor for environmental protection and cooperate in transforming Taiwan into a sustainable Green Silicon Island. Chen promised to do his utmost to urge the administration to implement sustainable development projects. The President received artwork from primary school students as tokens of their hope and commitment, symbolizing their expectations for the future. In return, Chen gave seedlings of endemic tree species to the children to highlight the importance of leaving a livable environment for future generations, and the President also signed the *Taiwan Declaration on Sustainable Development*.

In September 2002, the *UN Sustainable Development Action Plan* and the *Johannesburg Declaration on Sustainable Development* were made public during the United Nations World Summit for Sustainable Development, in Johannesburg, South Africa. Taiwan's National Council for Sustainable Development (NCSDD) also completed the Executive Yuan's *Sustainable Development Action Plan* in December of last year, and drafted the *Taiwan Declaration on Sustainable Development*.

In order to raise awareness of sustainable development in Taiwan, implement sustainable development actions and comply with President Chen's motion that 2003 be the First Year of Sustainable Development, the NCSDD held the Declaration Assembly for the First Year of Sustainable Develop-

ment on January 25. In addition to President Chen, Premier Yu Shyi-kun also attended this meeting along with several central and local government leaders.

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During this meeting, five children representing different ethnic groups presented, in their own languages, a declaration of their hopes and prospects for the future of the environment. President Chen and several attendees also collectively signed the *Taiwan Declaration on Sustainable Development*. The President personally received artwork by the children made from recycled materials, and at the same time presented saplings of native trees symbolic of Taiwan's hope and promise for sustainable development, pledging to put into action the UN Declaration on Man and the Environment, with the obligation of protecting the environment for future

generations.

President Chen pointed out, looking back on the process of the development of human civilization, that only as long as humans are in harmony with the environment can we assure future sustainable development. He emphasized that the pursuit of sustainable development has already become the primary direction in the 21st century for national preservation and development. As a member of the global village, Taiwan must sincerely and determinedly maintain sustainable development of the human environment. The inauguration of the *Taiwan Declaration on Sustainable Development* is a promise that, under the guidance of the Executive Yuan's NCSD, Taiwan will find a balance between the environment and economic development, to allow Taiwan to develop sustainably as a Green Silicon Island.

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President Chen pointed out that Taiwan is a small island with a dense population and limited natural resources, and therefore achieving sustainable development is of greater urgency for Taiwan than for other countries. Chen perceived the hope for national progress embodied in these young future leaders' visions for the future, and also felt great responsibility to do his utmost to urge the administration to carry out sustainable projects.

NCSD Chairperson, Premier Yu Shyi-kun, expressed that the government has many sustainable development projects that need to be implemented in order to fulfill the vision of a Green Silicon Island. Yu said that the government will promote sustainable development work in conjunction with the private sector, and call on all the citizens and communities of Taiwan to work together to protect the environment and realize a sustainable Taiwan.

It was also announced during this event that the public can now sign the *Taiwan Declaration on Sustainable Development* online at the National Sustainable Development Website, at <http://ww2.epa.gov.tw/nsdn>.

Waste Management

Premier Yu: No Turning Back on Plastic Bag Restriction Policy

The second stage of the restricted use policy on plastic shopping bags began implementation on January 1, 2003, broadening the target to include six types of businesses, including department stores. To show his support of the policy, Executive Yuan Premier Yu said that, "it is definitely appropriate and essential that Taiwan head toward reduced usage of plastic bags and disposable dishes. While deliberation on the issue is welcome, we will not turn back."

The second stage of the policy to restrict use of plastic shopping bags and plastic (and polystyrene)

disposable dishes has been in effect since January 1, 2003. During an Executive Yuan gathering to usher in the New Year on January 2, Premier Yu took the opportunity to express his support for the implementation of this second stage. Yu said: "The goal of this measure is to build a cleaner and more sustainable Formosa." Addressing those enterprises who have voiced opposition to this policy, Yu pointed out that, "at the onset of implementation, the public may not be used to the minor inconvenience. As a result, the Executive Yuan may receive pressure on this issue. However, it is definitely appropriate and essential that Taiwan head toward reduced usage of plastic bags and disposable dishes. While deliberation on the issue is welcome, we will not turn back."

On this note, EPA Administrator Dr. Hau Lung-bin expressed that since the policy has been enacted, there have been concerns about workers transferring employment from plastic bag and disposable dishes industries, and certain paper industries have teamed up to raise prices. Hau indicated that the EPA will coordinate with related departments and discuss ways to solve these issues.

As for helping plastic bag and disposable dishes industry workers transfer jobs, the EPA has already compiled a budget to assist unemployed workers take up employment in resources recycling, dishwashing or other traditional industries. The EPA will also provide an NT\$500 million *Public Service Employment Fund* to help jobless workers find employment through local government services (see EPM Vol. VI, Issue I).

With regards to the increased price of paper products, EPA statistics show that businesses subject to the second stage of this policy use 7.3

million disposable dishes per day on average, while Taiwan's 15 main paper product manufacturers have an average daily production scale of 11.65 million units. This shows that the production volume of disposable paper dishes is sufficient to meet the market demand. Therefore, the EPA has already submitted relevant data to the Fair Trade Commission for investigation.

According to the public opinion survey carried out by the EPA from January 10 to 14, 45% of respondents felt that restricted use of shopping bags and plastic disposable dishes causes inconvenience to their daily lives. Nonetheless, over 80% of respondents are still in favor of the policy. 50.41% said that they bring their own shopping sacks when shopping, 70.19% said that they reuse previously bought plastic bags, and 75.77% said that they have cut down on using disposable dishes. This goes to show that this policy is gradually becoming a part of citizens' lifestyles.

For more information, please call 02-2370-5888 ext.3610

Waste Management Overhaul of Waste Import/ Export Regulations

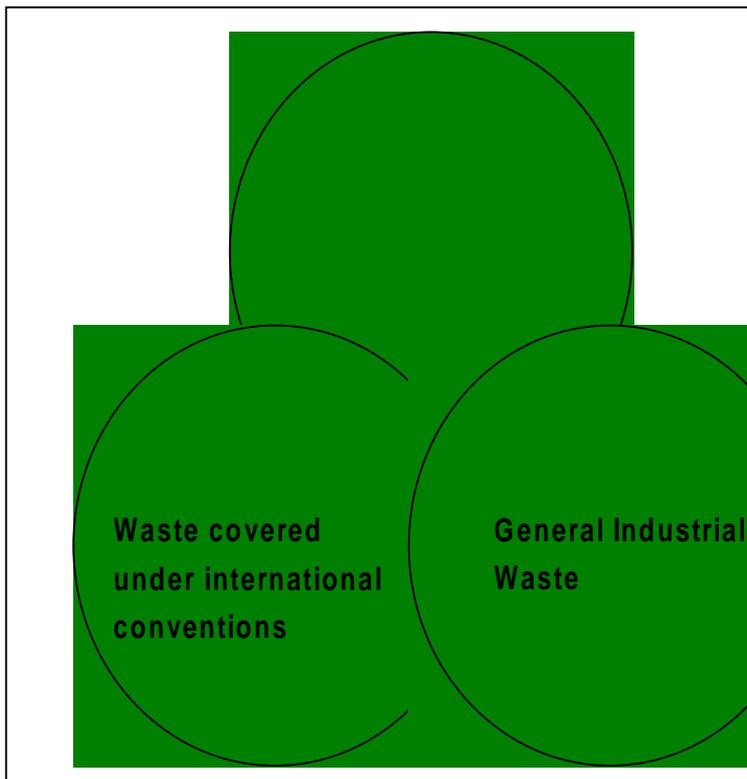
The EPA largely revamped the waste import-export management system by establishing a wider scope to include hazardous industrial waste, general industrial waste, and general waste governed by international agreements. This overhaul also now gives more detailed regulations on management processes and requirements of waste import and export.

To prevent illegal international transboundary movement of hazardous industrial waste, from 1993 on, Taiwan began implementing controls on the import and export

of hazardous industrial waste. In August 1997, hazardous industrial waste in transit and transshipment also came under control. However, because national identification methods and the scope of hazardous industrial waste, were not completely the same as the Basel Convention, Taiwan amended its *Waste Disposal Act* in October 2001 to accord with the Convention and further reinforce control of waste import and export. The revisions stipulated that operators must obtain approval for the import, export, transit and transshipment of all industrial wastes, except for those that the EPA has announced are not subject to controls. Industrial waste regulations can also be used to manage general waste that is covered in the Basel Convention.

In accordance with this regulation, on January 2, the EPA announced the *Regulations Governing the Import, Export, Transit and Transshipment of Waste* to replace the original *Regulations Governing the Import, Export, Transit and Transshipment of Hazardous Industrial Waste*. The EPA indicated that the main difference between the new and old measures is that a broader scope of categories are now under control, including hazardous industrial waste, general industrial waste and general waste already covered under international conventions. Furthermore, rather than announcing controlled wastes item-by-item, now all types of hazardous industrial waste, as well as hazardous wastes recognized by international conventions and by individual countries, all fall under the category of hazardous waste.

Moreover, future permit applications for waste import and export will be processed at two separate administrative levels. Import and export of general industrial waste



Waste import/export regulations now control over 3 different categories.

will require a permit from local environmental agencies. Import and export of hazardous waste will additionally require EPA approval before local environmental authorities will be allowed to release permits.

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As frequently occurs in the international arena, some exporters illegally transport waste to other countries by falsely listing it as some other product. Targeting such instances, the new regulations follow *Basel Convention*, clearly stipulates that industrial waste, non-industrial waste, general household waste and incinerator ash produced from such wastes are all prohibited from import and export.

With regards to management procedures for waste import and export, the new and old regulations are similar on the whole. However, with regards to waste that is refused for export by imported country, the original exporters may withdraw the waste for treatment, or once having passed review, may send it for treatment to a third country capable of handling the waste.

To appropriately control exportation of hazardous wastes, Taiwan has acted similarly to other developed countries, using a delivery manifest system to track exportation of hazardous waste. This system is still in place under the new regulations, however now operators can submit export data via Internet instead of the original manifest system.

As a way of promoting interna-

tional cooperation on the transboundary shipment of hazardous waste, the Basel Convention encourages each country to sign bilateral or multilateral accords regarding this issue. While making the above revisions, the EPA also included mechanisms to sign bilateral treaties with other countries in the future. New regulations stipulate that if a country signs a bilateral treaty with Taiwan regarding bilateral waste import/export according to the conditions of the Basel

convention, the contents of the bilateral treaty will be preferentially applied. If no regulations are given in bilateral treaties, then stipulations in this new regulation shall be followed.

With regards to the special political relationship between Taiwan and Mainland China, these regulations may be applied to ' permit procedures for import, export, transit and transshipment of waste between the Taiwan region and the Mainland region. Moreover, these regulations can also be used for air transport of waste.

Water Quality

Amorgos Spill: EPA Seeks Compensation Abroad

In 2001, the MV Amorgos ran aground and spilled oil off the coast of the Kenting National Park, resulting in serious marine pollution. Despite numerous negotiations between the EPA and the ship owner's insurance company, the two parties have not reached a conclusion regarding liability compensation, and the EPA decided to file a suit for compensation of more than NT\$350 million in both the local court in Pingtung County where the spill occurred, and in the Norwegian court where the ship owner's insurance company is located.

On January 14, 2001, the Greek tanker MV Amorgos ran aground off the coast of Lungkeng in Kenting National Park, spilling tons



In 2001, the oil spill of MV Amorgos seriously impacted the environment..

of oil and seriously polluting the local marine area. After the spill, the EPA immediately mobilized forces to clean up the pollution and requested compensation from the ship owner based on damage caused by the incident (see report in EPM Vol. IV, Issue VI).

As the Amorgos was the only ship owned by this company, after it ran aground the ship owner had no more financial property to provide toward compensation. Therefore the EPA turned to the ship owner's insurance company for compensation. After over a year of negotiations between both sides, finally an initial agreement was reached in April 2002, in which the insurer agreed to first pay pollution cleanup costs.

However, as for the second phase of costs for ecological restoration and financial losses, the insurer has nearly flat out denied liability, despite several trips to Taiwan by the insurer's representatives to do on-site survey of the spill location and despite negotiations with various related agencies. Due to a large gap between both sides' perceptions of ecological damage and restoration costs, further negotiations were recently called off. As a result, the EPA filed lawsuits on January 10 and 14 this year in both the local court in Pingtung County, and in the Norwegian court where the ship owner's insurance company is located, respectively. Compensation of over NT\$350 million is requested from the ship owner.

In order to determine the compensation amount, the EPA hired an internationally reputed marine pollution liquidation firm and compiled damage inspection data provided by relevant government agencies. Damages incurred from marine pollution in the Amorgos spill cost around NT\$90 million including tax and other financial losses. Marine ecology damage and restoration expenses were calculated at more

than NT\$240 million, and expenses for monitoring and control of the shore's ecosystem comes to around NT\$18 million. Total expenses amount to over NT\$350 million.

The first stage of handling cleanup of the Amorgos wreck has already been completed. However, based on the principle that liabilities

should be compensated for, the EPA has entrusted legal services to help proceed with an international compensation lawsuit so as to protect national dignity and ensure that the polluter pays for damages.

For more information, please call 02-2311-7722 ext. 2840

General Policy

Five Acts Revised to Conform with Administrative Procedure Act

In accordance with the recently implemented *Administrative Procedure Act*, the Legislative Yuan has passed revisions of the *Noise Pollution Control Act*, the *Environmental Impact Assessment Act*, the *Environmental Agents Control Act*, the *Drinking Water Management Act*, and the *Soil & Groundwater Pollution Remediation Act*. In these revisions, the legal basis of management over environmental analysis and testing organizations has been put into writing. Also, a portion of what were originally listed as implementation rules in articles have been modified and incorporated into the parent laws. As far as the whole management structure is concerned, this set of revisions does not pose any substantial changes.

To complement the newly implemented *Administrative Procedure Act*, the Legislative Yuan made revisions to the *Noise Pollution Control Act*, the *Environmental Impact Assessment Act*, the *Environmental Agents Control Act*, the *Drinking Water Management Act*, and the *Soil & Groundwater Pollution Remediation Act*. These revisions were then ratified and promulgated by the President on January 8, 2003.

Article 32-1 was added to the *Environmental Agents Control Act*, and modifications were made to Articles 13, 16, and 45. The original Article 13 stipulated that technical grade environmental agents must pass approval by the EPA before they can be transferred. The new revision also further em-

powers the EPA to set up permit principles for technical grade environmental agent transfers and criteria for transferring parties.

The second change pertains to the modification and individual packaging of environmental agents. Article 16 states that only after obtaining EPA approval can such procedures be carried out. The revision, however, stipulates further restrictions on the qualifications of packaging businesses, requiring that they must employ environmental agent production plants that possess the same dosage equipment, before they can begin modification and individual packaging work.

As for environmental agent analysis and testing organizations, the new law has added a new basis for the EPA to authorize

management of these above organizations. Article 32-1 requires that analysis and testing organizations must first obtain a permit from the EPA before they can begin testing work on environmental agents.

As for the *Noise Pollution Control Act*, an addition has been made to Article 9, which stipulates that new car owners must obtain a new car noise test permit from central competent agents before they can apply for a license plate. Article 11-2 specifies that all government levels should reconsider zoning plans for existing land use and development planning according to control principles for the first, second and third levels of aircraft noise control zones. In addition, Article 19-1 and Article 20-1 spell out clearer regulations regarding penalties.

As for the *Environmental Impact Assessment Act*, Articles 12 through 14 have been revised, changing the word "hearing" to "public hearing". Regulations under Article 23 regarding violations have been modified as such that those who do not carry out improvement measures within the specified time will incur penalties based on how many days they have exceeded the deadline.

Regarding the *Drinking Water Management Act*, the following articles have been added: Article 12-1, Article 14-1, Articles 24-1~3, and Article 25-1. Of these, Article 14-1 has inserted regulations regarding the degradation of water quality at drinking water sources in the event of a natural disaster or other unavoidable incident. In such a case, tap water operations, simple water treatment facilities or community-based public water agencies must adopt response measures and reinforce testing of drinking water quality immediately following the incident. Water quality and re-

sponse measures must then be publicly announced via newspaper, television, radio, loud-speaker broadcasts or flyers.

Similar to the *Environmental Agents Control Act*, the *Drinking Water Management Act* has also added new guidelines for managing drinking water analysis and testing organizations in Article 12-1. As for the *Soil and Groundwater Pollution Remediation Act*, the regulation to abolish the analysis and testing organization permit is now clearly stated within the parent law.

The EPA has stated that the revisions to these five acts have been

implemented to accord with the *Administrative Procedure Act*, and for regulations regarding public obligations should be clearly stated and approved by the Legislative Yuan. Apart from legal jurisdiction over relevant analysis and testing organizations, all other newly added articles follow implementation rules that already in place. Put briefly, this set of revisions will work to elevate the legal standing of implementation rules. Therefore, as far as structure of organizational controls is concerned, the revisions do not substantially alter the content of these five acts.

Waste Management

Number of Recycled Waste Printers More Than Doubled in 2001

Taiwan's recycling efforts are achieving outstanding results as the amount of garbage recycled continues to rise each year. As for growth of regulated recyclable waste materials, discarded printers recorded the highest increase at 144%, while discarded dry cell batteries came in second with a 77.7% increase. Despite the cancellation of reward incentives for recycling PET bottles, the volume recycled has gone up rather than down, reaching 64 thousand metric tons last year -- a 22% increase over 2001.

According to EPA statistics, last year Taiwan recycled 1.27 million metric tons of resources. The verified recycling volume of regulated recyclable waste was 716 thousand metric tons, and the volume of non-regulated recyclable resources (e.g., waste paper and used clothing) reached 555 thousand metric tons, showing respective increases of 1.3% and 59% from 2001. Due to a yearly increase of recycling and disposal volumes, the average amount of per capita per day waste production has fallen from 1.143 kg in 1997 to 0.895 kg in 2001, a daily reduction of 238g per capita. Volume of waste collected has also

fallen from 8.88 million metric tons in 1997 to 7.25 million metric tons in 2001, a decrease of 163 metric tons.

As for growth in the verified recycling volumes of regulated recyclable waste, discarded printers saw the greatest increase at 144%. This dramatic rise is due to the fact that it was just declared as a regulated recyclable in early 2001, and growth flourished during its first year of publicity. The main reason that the recycling of dry cell batteries posted such a sharp rise of 77.7% was due to increased subsidies in March 2002, as well as aggressive promotional

efforts by the EPA in 2002 to strengthen dry cell battery recycling projects in public elementary and middle schools.

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The quantity of discarded notebook computers fell by 42.63% as the public showed less willingness to get rid of their old notebooks due to the economic downturn in 2002 and the high purchase price of this product. The number of discarded refrigerators also decreased by 38.38%. This decline is due to the fact that when the EPA declared refrigerators as a regulated recyclable waste in 1998, a disposal enterprise had not yet been appointed, leaving approximately 500 thousand units of electric home appliances piling up waiting to be disposed of. However, all these units had been successfully disposed of by 2001.

PET bottles continue to post a normal growth rate of 22%. The EPA explains that in spite of canceling the PET bottle recycling reward incentives on June 1 of last year the volume recycled has not decreased. 64 thousand metric tons of PET bottles were recycled in 2002, a 22% increase over 2001. The main reasons for this is due to increased demand for PET as a raw material, the number of recycling processing plants has expanded from 7 to 15, and the purchasing price has increased from NT\$4/kg in the beginning of 2002 to its current rate of NT\$8/kg.

With the EPA's increased subsidy

rates for PET recycling, the allowance/kg has risen from NT\$7.61 to NT\$10.3, helping to compensate for the impact of canceling the recycling reward incentive. The EPA stated that the PET fund had been losing around NT\$500~600 million a year, but in 2001 the losses were reduced to NT\$150 million.

After canceling the recycling reward incentives in 2002, fund losses were controlled at approximately NT\$120 million. It is anticipated that the downward trend of fund losses will begin to show a marked improvement this year.

In regards to the verified recycling volume in 2002, scrap automobiles weighed in on top with 160 thousand metric tons (approx. 200

thousand automobiles), waste tires came in second at 130 thousand metric tons, and waste glass containers was next with 83 thousand metric tons.

As for economic benefits, the amount of recycled resources in 2002 was 1.27 million metric tons, equivalent to the amount of waste processed per year at four incinerators the size of Taipei City's Neihu Waste Incineration Plant, which processes 900 metric tons/day. Calculating the incineration plant's construction, its operating costs, and the resale of recycled resources, the total economic benefit from resource recycling was close to NT\$5.876 billion.

For more information, please call 02-2370-5888.

Air Quality

2002 Low-polluting Car Models Announced

EPA announced the results of exhaust and noise pollution inspection statistics for new 2002 car models. Among the two major categories of domestic and import sedans, the Nissan SENTRA 1.8 and the Volvo S80 recorded the lowest exhaust emissions while the Formosa MATIZ and the Volkswagen BORA 1.6 registered the lowest noise pollution readings.

According to Taiwan's *Air Pollution Control Act* and *Noise Pollution Control Act*, exhaust emission and noise pollution produced by motor vehicles must comply with Taiwan's regulatory standards. In addition, the importation, manufacture, operation, and licensing by governmental roads and motor vehicle agencies is contingent on EPA motor vehicle exhaust emission and noise pollution inspection certification. Automobile manufacturers and importers must provide exhaust emission and noise pollution inspection data to the EPA for examination and authorization before the new models go on the market for retail sale. The EPA maintains records of the inspection data collected on mod-

News Brief

NT\$3,000 Car Recycling Incentive Continues in 2003

The EPA announced the 2003 incentive reward amounts for recycling discarded motor vehicles: a recycling incentive of NT\$3,000 will be awarded for discarded cars and a NT\$1,000 incentive will be given for discarded motorcycles. Motor vehicle owners who have completed discarded vehicle processing procedures according to regulations are eligible for receiving award incentives by sending application documents to P.O. Box 3257, Taipei. The incentive award will be issued upon review and authorization by the EPA.

els that have received certification and continually conducts follow-up inspections to ensure that automobiles up for sale on the domestic market comply with regulatory standards.

EPA statistics indicate that a total of 1,051 new car models received exhaust emissions and noise pollution inspection certification. Comparing domestic and import automobiles, the Nissan SENTRA 1.8 recorded the lowest emissions of all domestic sedans with CO exhaust emissions of only 0.36g/km, while the Volvo S80 led import sedans with CO exhaust emissions of only 0.04g/km. In the low noise pollution category, the Formosa MATIZ placed first among the domestic sedans recording a mere 69.1dB on acceleration noise pollution readings, while the Volkswagen BORA 1.6 registered the lowest acceleration noise pollution at 68.5dB.

Taiwan began implementing the first phase of emission controls on gasoline engine automobiles in 1987 and as of 1999 the nation is currently in the third stage of regulatory controls. Current exhaust emission and noise pollution control standards mandate that exhaust emission limits on sedans

and recreation vehicles record CO levels below 2.11g/km and NO_x levels below 0.25g/km. Noise pollution during idle must be below 103dB, and below 78dB during acceleration. Small passenger bus and freight truck CO emissions must be below 3.11g/km and NO_x below 0.68g/km, with idle noise below 103dB and acceleration noise below 83dB.

The rise of public consciousness on environmental issues during recent years has led an increasing number of automobile companies to actively promote the low polluting advantages of their vehicles. Many of the new domestic models not only comply with domestic regulatory standards; they also already comply with the Super-Ultra-Low-Emission Vehicle (SULEV) standards, which go into effect in California (U.S.A.) in 2004. It is clearly evident that improvements are being made on domestic automobile exhaust emissions.

The EPA also emphasizes that in the future it will refer to the regulatory standards of other advanced nations when establishing Taiwan's fourth stage of emission standards so as to continually raise environmental standards of domestic

automobiles. Statistical data on exhaust emission and noise pollution for vehicles that have been inspected will be posted on the EPA website (<http://www.epa.gov.tw/F/index.htm>) to provide a reference to the public when they are shopping for an automobile. It is our hope that environmental factors, such as low exhaust emission and noise pollution, will substantially influence the public when purchasing automobiles, not just appearance, price, and features. These are the types of environmentally conscious considerations that will make a difference in helping to increase the nation's air quality.

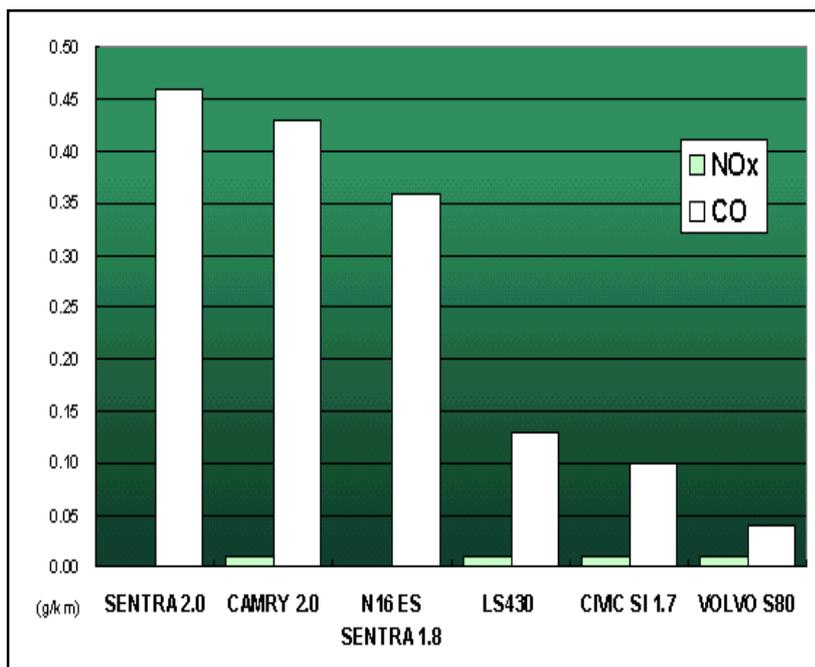
For more information, please contact 02-2311-7722 ext. 2754

Air Quality

EPA Assumes Control Over Methyl Bromide

In compliance with revisions to the *Air Pollution Control Act*, the EPA has completed formulation of *Regulations on Methyl Bromide Management* draft. Future use of methyl bromide will be limited to Quarantine and Pre-shipment (QPS) treatment, and importers and users must provide biannual reports on import and usage circumstances.

Destruction of the ozone layer poses a serious environmental concern to the entire world. Taiwan has the responsibility and duty to increase protection of the ozone layer and uphold the regulations established in the *Montreal Protocol on Substances that Deplete the Ozone Layer*. When Taiwan made revisions to the *Air Pollution Control Act* last year it was specifi-



Emissions of New Cars in 2002

cally laid down that the EPA can prohibit or restrict materials likely to cause air pollution as specified in international environmental conventions, as well as the manufacture, import, export, sale and use of products made from or filled with such materials.

The international community has already established regulatory

...enterprises that wish to import methyl bromide must apply with the EPA twice per year before February and August of each year...

framework for substances that damage the ozone layer, such as chlorofluorocarbons (CFCs), halons, hydrochlorofluorocarbons (HCFCs), and methyl bromide. Controls over CFCs, halons and HCFCs are already well on their way toward implementation. However, as methyl bromide has an ozone depletion potential (ODP) 0.6 times that of CFCs, this year the international community has accelerated efforts to regulate methyl bromide. During COP9 in 1997, a resolution was passed to ban the use of methyl bromide before January 1, 2005.

In concert with controls implemented throughout the international arena, on January 17 the EPA promulgated the *Regulations on Methyl Bromide Management* draft, which specifies Taiwan's regulatory controls on the import of methyl bromide, as well as usage restrictions, user application and reporting procedures.

This draft regulation states that enterprises that wish to import methyl bromide must apply with the EPA twice per year before February and August of each year. The import quantity applied for is based

on the enterprise's operation status for the previous six months. In addition, importation will be restricted to QPS usage (in accordance to the restriction stipulated in the *Montreal Protocol*). Once the enterprise has received import authorization from the EPA, the enterprise can apply for input certification from the Board of Foreign Trade, MOEA.

In accordance to international control standards, the draft stipulates that importers and exporters of methyl bromide are limited to only countries and regions abiding by the *Montreal Protocol*, and only after those areas have been announced by the EPA.

As a measure to keep imports under control, the draft also requires that methyl bromide importers submit business records every half-year to the EPA and report the actual amount imported in the last period. Users, on the other hand,

are required to report amounts used and storage information for the last half year.

The EPA has explained that Taiwan's methyl bromide is primarily for QPS use with annual usage at approximately 20 metric tons. Taiwan actually began implementing regulations on methyl bromide in 1994 when the Council of Agriculture initiated measures to regulate methyl bromide use, and since 1998 the EPA has prohibited the use of methyl bromide for use in environmental agents. The above-mentioned draft regulation is merely a measure taken to comply with legal revisions to transfer regulatory authority to the EPA. The EPA will continue working to control the importation and use of methyl bromide.

For more information, please contact 02-2370-5888 ext. 2668

Activities

National Cleanup Week: Take to the Streets and Cleanup for the New Year

The EPA is promoting the "National Cleanup Week" from January 24~30 to get ready for the Chinese New Year. The EPA is appealing to the public to work together to clean up both in and around their homes. The focus of the cleanup should begin in your home by cleaning up areas that mosquitoes may find suitable for breeding. Any unused containers should be turned over or taken to the garbage truck to be collected, and basements with standing water should be drained. These measures will help to eradicate mosquitoes and prevent outbreaks of Dengue fever. In addition, residents should cleanup the four square meters of public space surrounding their homes, including lanes and alleys, streets, and drainage trenches, and the work can be divided up among neighbors if this space is shared. Enforcement of Article 11 of the *Waste Disposal Act* will be administered on anyone who is found in violation of these stipulations.

Hau Praises Outstanding Senior-level Sanitation Crew Workers

On January 23, EPA Administrator Dr. Hau Lung-bin personally met with 195 outstanding senior-level front line environmental sanitation professionals from around the nation to show his support and appreciation for a job well done. An award ceremony was also sponsored to praise the outstanding senior-level environmental sanitation professionals who exemplified the most dedication and responsibility. Awards were given for the top 25 outstanding personnel and 170 exemplary personnel. Selections were made by the EPA's selection committee, which chose from over 27,000 sanitation workers throughout the nation. Thirty-two women were selected – approximately one-sixth of all chosen. The ranks included senior-level professionals who have been working for over ten years in fields such as waste clearance, resource recycling, road cleanup, and garbage truck drivers.

News Briefs

Subsidy Regulations Eased for Purchase of Fuel Injected Motorcycles

The EPA has eased regulations on subsidy requirements for the purchase of low polluting fuel-injected motorcycles. This is a move that the EPA hopes will encourage the public to get rid of their old motorcycles and purchase new environmentally friendly motorcycles, thus helping to expedite the pace of reducing motorcycle air and noise pollution. Previous regulations stipulated that one could only apply for the subsidy if the purchaser of the new motorcycle is the same person (or an immediate relative, e.g., blood relative or spouse) who disposed of the old motorcycle. In the future, when the purchaser of a new motorcycle is not the same person who disposed of an old motorcycle, the application can

be jointly filed and the EPA will provide a NT\$4,000 subsidy toward the purchase of one new motorcycle. To further support total quantity control (TQC) for Kaohsiung City, Kaohsiung County, and Pingtung County, an additional NT\$1,000 allowance will be provided by local environmental protection bureaus for citizens in these areas who replace old motorcycles with low polluting fuel-injected motorcycles.

For more information, please call 0800-085717

EPA Continues Subsidies for Electricity Generated from Landfill Gas

In an effort to reduce methane and VOC emissions at landfills, in 1999 the EPA began providing assistance to enterprises that generate electric-

ity from landfill gas, thereby encouraging resource recycling and reuse. There are currently four landfill gas power plants in Taiwan, and these plants receive NT\$40 million in electricity generation incentives annually from the EPA. In coordination with the revisions to the *Air Pollution Control Act*, the EPA announced the *Rules to Encourage the Use of Landfill Methane Gas for Electricity Generation* on January 22, 2003, which retains the existing NT\$0.5/watt incentive and further stipulates that landfill gas power plant operators can apply for incentive funds by providing the previous season's inspection documentation to the EPA at the end of January, April, July and October of each year.

2003 Home Appliance Recycling Subsidy Rates Announced

The EPA announced the 2003 electrical home appliance recycling, clearance and disposal subsidy rates, which includes four products types: TVs, washing machines, refrigerators, air conditioners and heaters. To apply with the EPA for recycling & clearance subsidies and disposal subsidies, a home appliance recycling enterprise simply has to have an EPA certified auditing agency verify the quantity of recycled electrical home appliances and then the application can be submitted.

For more information, please call 0800-085717

2003 Electronic Product Recycling, Clearance, and Disposal Subsidies Rates (NT\$/unit)

Discarded Electronic Products	Recycling & Clearance Subsidy Rates	Disposal Subsidy Rates
Televisions	127.5	252
Washing Machines	175	171
Refrigerators	302.5	333
Air Conditioners and Heaters	302.5	108

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