



Feature Column

EPA Supervision Evaluation System

Owing to the increasingly complex nature of environmental protection affairs, the Department of Supervision Evaluation and Dispute Resolution has shifted from its former passive role to a more proactive stance in its work. In all aspects – from actively building up an integrated supervision evaluation system, and promoting the entrance of green products on the market, to strengthening the investigatory and double-checking functions of the public nuisance complaint system – it is evident that this department has a renewed determination about its work.

According to EPA organizational regulations, the EPA Department of Supervision Evaluation and Dispute Resolution (DSEDR) is responsible for three main work areas:

1. Routine investigation and reporting of environmental protection affairs, follow up tracking and evaluation of the

handling of environmental protection affairs

2. Evaluation of supervisory duties for environmental protection affairs executed by municipal, county and city governments; double-checking pollution source controls

3. Appraisal of environmental protection related disputes and laying down regulations for dispute resolution. Assisting with appraisal of serious disputes, resolutions and appeals.

DSEDR fully complements the needs of the EPA by: evaluating the supervision of and tracking the progress of special environmental protection projects; assessing the achievements of local governments in the area of environmental protection; promoting the Green Mark and green procurements; and resolving and making follow-up assessments of public nuisance complaints.

Proactively Adopting Innovative Measures

The work of supervision evaluation is typically thought of as unvarying and passive, for example controlling the progress of administrative plans and thoroughly checking up on the

As environmental protection affairs become ever more complex in this era of rapid change, in addition to the above duties, the

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The Green Mark label

status of plans as they are being carried out. It is quite easy for this kind of work to gradually become little more than fixed, mechanical tasks such as merely filling out reports. However, such tasks bring little of substantial benefit to environmental protection affairs and policy advancement. Moreover, as some plans overlap under the regulatory authority of different agencies (i. e.: the Executive Yuan's Research, Development, and Evaluation Commission or the Public Construction Commission), these tasks become a burdensome and unnecessary workload for executive agencies.

ried out by the EPA, and gathering extensive data and surveying the content of each program. Also includes carrying out analysis, categorization, and compilation of statistics on the characteristics and rationale of each program – this information then serves as a basis for improving administrative affairs and formulating upcoming environmental policies.

Strengthening supervision evaluation of construction projects: The EPA has subsidized local governments to carry out environmental engineering projects numerous times in the past. To complement the Three Tiered Construction

success in advancing the Green Mark system over the past decade. In this area, the DSEDR has adopted the following concrete methods:

Assisting large vendors, wholesale vendors, and government welfare stores to strengthen Green Mark product labeling: The EPA invited all large vendors to a discussion on August 26, however as the installation of special counters or districts has a bearing on businesses' operating costs, some businesses showed little willingness to cooperate. At present, it is temporarily up to the EPA to provide Green Mark labels and make Green Mark products more visible on the market. These measures also make it more convenient for consumers who choose to purchase more environmentally friendly products.

Planning the gradual transfer of Green Mark certification services to private groups: To complement the government policy of "Small Is Beautiful; Small But Capable," and the ever-tightening national budget in recent years, deliberation of the Green Mark will be entrusted to the private sector in the future. This will not only save government expenses, but will also effectively streamline work procedures and raise work efficiency as the existing periodic audit system changes to a first-come-first-serve basis. Naturally, before formally transferring this task to the private sector, the EPA will draw up a set of appropriate response measures so that Green Mark-related work continues to operate smoothly in the future.

Urging all agencies to increase green procurements: Working to fully implement the *Program to Promote Green Procurement in Government Agencies* (機關綠色採購推動方案) ratified by the Executive Yuan, the EPA will strengthen guidance and assistance to staff in charge of procurements in agencies that have not had ideal performance in this area so that

Apart from actively giving impetus to agencies to make more green procurements, the EPA will also heavily promote this idea to large enterprises so as to expand the market scale of environmentally friendly products.

Beginning this year, the EPA has adopted the following innovative methods for carrying out supervision evaluation work:

Establishment of integrated supervision evaluation system: Includes establishing online information system and integrating all EPA supervision evaluation plans into one interface. This makes it possible to use the Internet to find which projects are being carried out by which departments, giving users an overall command of the situation. Not only does this method improve on the current situation in which redundant forms must be filled out when the same plan is under the authority of many different agencies; it also greatly upgrades administrative efficiency.

Analysis and review of special programs: Entails selection of particular topics such as plans entrusted to other agencies by the EPA and research projects car-

ried out by the EPA, and gathering extensive data and surveying the content of each program. Also includes carrying out analysis, categorization, and compilation of statistics on the characteristics and rationale of each program – this information then serves as a basis for improving administrative affairs and formulating upcoming environmental policies.

Quality Control System (三級制工程品管制度) set in motion by the Public Construction Commission, the DSEDR is actively carrying out quality control and progress reviews on environmental engineering projects subsidized by the EPA (i.e., incinerators and landfills). Relevant project information is compiled into digitalized files and undergoes statistical analysis and timely reviews which are used as effective means to urge local governments to upgrade engineering quality and gain a firm command over the rate of progress as construction is carried out.

Assisting Corporations, Actively Promoting Green Products

The DSEDR has put forth great effort in promoting the Green Mark and encouraging green consumerism, and is especially commended for its outstanding

they fully understand the procedures involved in making green purchases. Apart from actively giving impetus to agencies to make more green procurements, the EPA will also heavily promote this idea to large enterprises so as to expand the market scale of environmentally friendly products.

Holding Green Mark promotion activities: In December the EPA will hold a three-day Green Mark Promotion Achievement Exhibition, inviting domestic Green Mark product manufacturers and Tier 2 Eco Product manufacturers to participate. An estimated 100 booths will be on display to raise consumers' level of awareness of the Green Mark.

Enhanced Training Curriculum for Judiciary Officials

To strengthen linkage and exchange between the fields of environmental protection and judiciary affairs and establish a consensus on the enforcement of environmental law, the EPA jointly held a series of "Practical Research Training for Public Dispute Investigation and Settlement" courses together with the Ministry of Justice at their training institute between July and August. Although similar training courses and exchange activities were also held in previous years, this year the EPA made significant revisions to its curriculum.

Firstly, a "Practical Issues Workshop" was added to the curriculum. This course invited all of the EPA's work units as well as the Bureau of Environmental Inspection and its three regional branches, the Environmental Police Unit and local environmental protection bureaus (EPBs), along with judiciary officials for face-to-face exchange of opinions. In addition, the EPA arranged for a day of on-the-spot instruction, in-

cluding inviting judiciary officials to investigate an illegal dump site at Taoyuan Sibin Expressway construction site. Participants were then taken to the Environmental Analysis Laboratory and the Beitou incineration plant.

In addition, in response to the September 1 implementation of the newly revised code of criminal procedure and in order to raise inspectors' capabilities to gather evidence for pollution incidents, the DSEDR and the Environmental Professionals Training Institute cooperated in holding an "Environmental Public Nuisance Judiciary Affairs Practicum" for inspectors and the Environmental Police Unit in September and October. Judges and court prosecutors were invited to lecture for this course. This special training worked to effectively build a platform and mechanism for mutual dialogue between judiciary officials and environmental protection staff. Each side was allowed to communicate their position and opinions. The training is expected to benefit the mature interoperation of environmental protection legislation, law enforcement and the judiciary system.

Strengthened Investigation of Public Nuisance Complaints

Public nuisance complaint cases are considered the area of most direct contact between environmental agencies and the public. Every year around 100,000 public nuisance complaints are filed by the public throughout the nation. Over 90% of these are filed over the telephone and the remaining cases are filed through letters or email. Each public nuisance complaint is handled by the environmental protection report center and the content of each appeal is entered into a computer file. Each step throughout the entire procedure from transferring the case to finding a resolution is done through

a computer management system. Moreover, the outcome of how each case is handled can then be accessed by the petitioner. It is noteworthy that in recent years, now that citizens have raised their demands for environmental quality, they are not always satisfied with the handling of complaints.

To raise the public's satisfaction with how environmental agencies handle public nuisance cases, the DSEDR has laid down many measures, which will soon be put in effect.

In order to raise the public's satisfaction with how environmental agencies handle public nuisance cases, the DSEDR laid down the *Work Improvement Measures for Public Nuisance Complaint Management* (公害陳情案件處理作業改進措施) in June 2003, which covers the three aspects of "Comprehensive Complaint Case Management Procedures," "Reinforced Inspection and Double-checking Work Mechanisms," and "Implementation of Supervision Evaluation." These measures will be gradually put into effect. So far, implementation results include:

Comprehensive complaint case management procedures: Revision of the "Environmental Report Center Hotline Answering Service Standard Operational Procedures and Telephone Etiquette Requirements." This entails the formulation of standard procedures for telephone answering service, providing each environmental protection agency with standard procedures and model

responses for answering public complaint telephone calls.

Upgraded functions of Public Nuisance Complaint Information System: Updated interface functions of the online system make it easier to operate and convenient to search and link up and transmit digital images. The goal here is to encourage the public to use the Internet to report public nuisances.

Reinforced inspection and double-checking work mechanisms: Revision of the *Work Guidelines for Public Nuisance Complaint Tracking and Double-checking* (公害陳情案件追蹤清查及管制複查作業要點) to reinforce computer inspection and warning functions. When the same issue is repeatedly petitioned or when the public is dissatisfied with how a case is handled, such cases are automatically screened and transferred for double-checking to ensure that the pollution source is eliminated.

"Public Nuisance Complaint Handling and Inspection Study Group": This study group entails a series of ten five-day discussions to train 500 personnel to establish an inspectors training qualification system and upgrade the quality of inspections.

Implementation of supervision evaluation: Revision of the *Guidelines for Reviewing the Achievements of Local Environmental Agencies' Management of Public Complaints* (地方環保機關處理民眾陳情案件成效評比要點). This includes holding performance reviews of environmental agencies on their handling of public nuisance complaints. This measure aims to reinforce internal management and put supervision evaluation into practice.

Random inspections: From July this year (2003), random inspections will be made based on the ratio of complaint cases per county or city. Other random assessments

include nonscheduled tests on telephone etiquette and the re-

sponse speed of case management.

General Policy

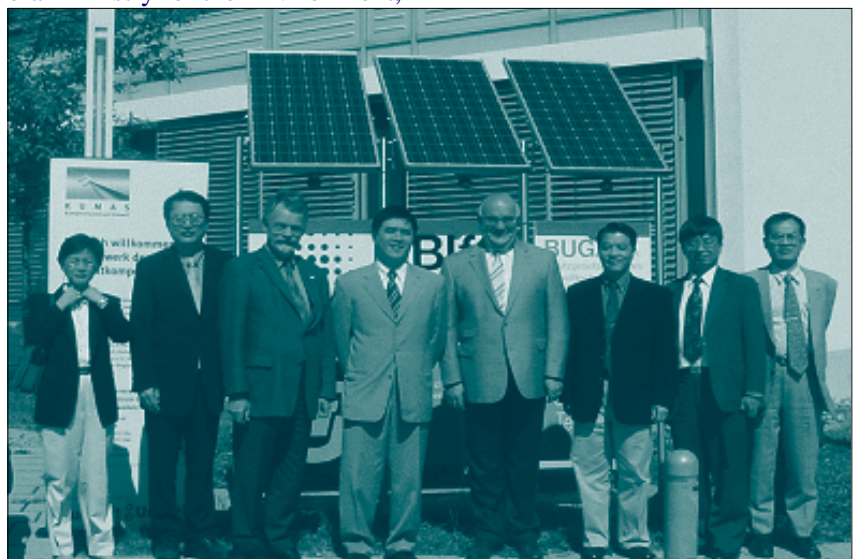
Expanded Opportunities for International Exchange in Environmental Protection

The EPA enjoyed frequent exchanges with the international community this September. First, EPA Administrator Hau Lung-bin visited Singapore and Germany and invited foreign firms to set up operation in Taiwan's new Environmental Science and Technology Parks. Then the EPA welcomed US EPA delegates to Taiwan to renew a Taiwan-US environmental protection technology cooperation agreement for five more years. This agreement fosters friendly relations between Taiwan and the US through environmental technology exchanges.

In step with this October's 2003 Taiwan Business Alliance Conference in Taiwan at the Taipei World Trade Center, EPA Administrator Hau Lung-bin (郝龍斌) led a delegation to Singapore and Germany to invite foreign firms to set up operation in Taiwan's new Environmental Science and Technology Parks (ESTP). The delegation met with green industries in Singapore and Germany to welcome investment in Taiwan and to carry out official bilateral environmental technology exchanges.

The focus of the delegation's visit with Singapore's Ministry of the Environment, and Germany's Federal Ministry for the Environment,

Nature Conservation and Nuclear Safety, and Federal Ministry of Economics and Technology was to introduce Taiwan's ESTP promotion plan, carry out official bilateral environmental technology exchanges and invite those countries' officials to visit Taiwan. While in Germany, the delegation held a briefing on the ESTPs and invited environmental industries to invest in Taiwan. The delegation also met with local environmental technology firms and extended an invitation to invest in Taiwan's ESTPs. Hau's delegation also made a survey of Germany's waste management system, policies and related environmental facilities.



Taiwan delegation stands in front of a solar panel in Germany, observing the latest developments in solar energy.

The EPA expressed that one of the biggest accomplishments of the trip was that Singapore's Citiraya Industries Ltd. expressed strong interest in investing in the Kaohsiung ESTP. Their initial plan would invest an estimated NT\$100~200 million toward the use of around one hectare. The EPA is currently extending all efforts to assist with their investment plan. Also, now that the German government has a better understanding of Taiwan's ESTP plan, the Federal Ministry of Economics and Technology will soon arrange for environment-related companies to visit Taiwan and search for investment opportunities.

Through the kind effort extended by Taiwan's representative in Germany, the delegation was able to carry out the first overseas briefing on Taiwan's ESTPs while in Munich. Although the trip occurred during Germany's summer vacation period, many local firms eagerly showed up for the briefing. German Federal Parliament member Hans-Josef Fell (Green Party) and Helgo Alberts, Deputy Secretary General for the Chamber of Industry and Commerce for Munich and Upper Bavaria, also attended the briefing and openly praised Taiwan's restricted use policy on plastic bags and the speed and efficiency of its implementation. A total of twenty firms attended the briefing in Munich.

The EPA expressed that while it was in the process of inviting firms, it realized that foreign businesses need to have a grasp of the market scale, regulations, standards and local cooperation partners when investing in Taiwan. Because the method of investment will be based on technology transfer or technology cooperation models, the main task of inviting firms in the future will be to assist foreign enterprises in seeking

partner firms in Taiwan to help push foreign investment forward. Also, Taiwan should reinforce the functions of its Resources Reuse and Recycling Act to expand the market scale. Domestic firms wishing to cooperate with foreign firms are asked to contact the EPA's Department of Waste Management. The contact number is 02-2311-7722 ext. 2640.

While calling on Singapore's and Germany's environmental protection ministries, it was observed that both countries are actively engaged in developing green industry. The EPA is now even more confident that in order to advance sustainable development, it should use environmental protection policies, resource recycling, water recycling and other strategies. Such strategies will help expand the environmental industry and lead the vision in developing Taiwan's ESTP plan; they have also become international trends for advanced nations promoting sustainable development.

After the inspiring trip to Germany and Singapore, on September 23 the EPA welcomed the US EPA to a signing ceremony in Taipei to renew a Taiwan-US environmental protection technology cooperation agreement (台灣環境保護技術合作協定). Coordination Council for North American Affairs Secretary-General Andrew J. C. Kao (高振群) and AIT Deputy Director David J. Keegan acted as representatives for both sides in signing the agreement. Officials from the US EPA and Taiwan's EPA were also present at the signing ceremony.

Taiwan entered the first environmental technology cooperation agreement with the US in 1993, calling for the advancement of environmental protection cooperation between both governments' administrative

departments. Through this agreement, Taiwan has been continually introducing advanced pollution control technology and environmental management experience from the US over the past several years. The agreement has proved to be of great benefit towards improving Taiwan's environmental quality and building up management mechanisms.

The original agreement expired in 1998 and was renewed for five years up to this year (2003). The signing of this agreement on September 23 renewed the agreement again for another five-year term. After the signing ceremony, the EPA and the US EPA held a three-day 2003 US-Taiwan Environmental Protection Technology Cooperation Agreement Plan Review and Planning Conference. The main topics of this meeting included international cooperation in greenhouse emissions reductions, transboundary mercury pollution and control technology, and other relevant topics.

Air Quality

Regulations Drafted on Noise Certification Test for New Car Models

With regard to recent revisions made to the Noise Pollution Control Act, the EPA will raise the working guidelines for vehicle noise control testing to a new level by setting the (draft) *Regulations Governing Certification Issuance (Replacement) and Cancellation, and Testing for New Car Models*. This new regulation will become the basis for issuing (replacing) and annulling certification for new cars, and for carrying out random testing on new cars.

In conjunction with the revisions made to the Noise Pollution Control Act (噪音管制法) and implemented on January 8 this year (2003), the existing Working *Guidelines for the Application of Automotive Vehicle Noise Control Testing* (機動車輛噪音管制申請審驗作業要點) has been stepped up to a new level. According to Article 9~1 of these guidelines, noise testing certification issuance (or replacement) and cancellation, testing and selective testing management methods for new car models will all be coordinated by the EPA and the Ministry of Transportation and Communications (MOTC) in a new draft *Regulations Governing Certification Issuance (Replacement) and Cancellation, and Testing for New Car Models* (汽車新車型審驗合格證明核(換)發廢止及抽驗辦法草案) .

The main additions to this new regulation include penalties for violations of this regulation and cancellation of certification stipulations. Otherwise, this regulation follows the same work procedures as the existing Working *Guidelines for the Application of Automotive Vehicle Noise Control Testing*. One item in this regulation that affects businesses entails that for any mass-produced cars that have obtained certification, the applicant should comply with Article 11 of the draft regulations when carrying out quality control evaluation and reporting. Specifically, before the 20th of every month, the applicant should submit to the EPA a report of quality control test data for the previous month. For cars whose quality control test data does not meet automobile noise control criteria, the applicant should explain the reason for substandard results as well as planned improvement measures. Before the 20th of each month, domestic manufacturers of new cars must file a report to the EPA regarding produc-

tion plans for the month and actual sales for the previous month.

Meanwhile, in order to ensure that quality control evaluations are carried out to a certain standard, the applicant is required to adhere to Article 12 of this draft regulation. No matter whether the applicant independently carries out quality control or entrusts a professional agency to do the job, in all cases different random testing rates should be reached for different car models. Violations of Articles 11 or 12 will incur penalties stated in Article 19~1 of the *Noise Pollution Control Act*. Penalties entail fines ranging from NT\$10,000 to NT\$100,000 and a limited timeframe in which to make amendments or improvements. Those who fail to make amendments or fail to complete improvement measures in the allotted time will be penalized thereafter each time they are found to have not fulfilled improvements. If circumstances require, their certification may be revoked. Transitional articles that came into being after

Air Quality

Penalties Relaxed for Motorcycle Testing Stations

More and more motorcycle emissions testing stations have been established to handle the continually growing number of motorcycles in Taiwan. In order to more conveniently manage the quality of testing stations and protect citizens' interests, the EPA has revised management regulations, reducing the number of stipulations that easily lead to fines ranging from NT\$15,000 to NT\$60,000. The revisions also allow enterprises a buffer period in which to make improvements, thereby greatly relieving pressure for domestic motorcycle retailers.

Ever since the promulgation of the current *Regulations for In-Use Motorcycle Emissions Testing Station Facilities and Management* (使用中機車排放空氣污染物檢驗站設置及管理辦法) on May 21, motorcycle retailers have complained that the new fines are excessively severe.

the implementation of this regulation are clearly pointed out in the draft regulations. For example, Article 20 stipulates those parties that have already obtained certification or testing certification according to the previous regulations before this draft regulation officially goes into effect, should within six months of the implementation date of this regulation, apply with the EPA to replace their original certification or testing certification. Old certification and testing certification will be invalidated if new credentials are not reissued.

This draft regulation has already been discussed and approved by the relevant departments in the EPA on September 2. The next step according to legal procedures is to have the bill passed by the MOTC, which is expected to occur in the near future. Soon thereafter, the new regulation will be announced and put into effect. For more information, please call 02-2311-7722 ext. 2790.

Many enterprises requested that the EPA revise the regulations and ease up on fines so that this regulation responds more appropriately with actual circumstances. On September 18, the EPA convened the nation's local environmental protection bureaus (EPB) and mo-

motorcycle testing enterprises in a public hearing. Those enterprises that attended the hearing voiced no opposition to the proposed revisions and showed unanimous support and approval. Thus the EPA indicated that the necessary legislative procedures will soon be carried out in order to put this revised regulation into effect.

Revisions to the regulations mainly entail relaxing penalties and allowing enterprises more time to make improvements. Content was revised to stipulate violations that could result in fines ranging from NT\$15,000 to NT\$60,000 according to the *Air Pollution Control Act* (空污法). Specifically addressing motorcycle testing stations, these violations include: 1) failure to register with the EPA within 14 days of making any changes to items required on permits regarding computer software or emissions analysis instruments; 2) failure to link up with the local competent authority's online monitoring stations to regularly transmit testing information as required by law; or 3) refusal of inspection by the EPA or an entrusted professional testing evaluation agency.

The EPA explained that in order to effectively implement legislation on a fair basis and adjust some of the penalties, examination funding will be temporarily withheld from all motorcycle testing stations: 1) that have made a change to an item required on their permit yet have failed to register the modification with the EPA within 14 days of making the change; 2) whose testing personnel have not undergone at least 16 hours of professional training by the EPA every two years as stipulated; or 3) that have failed to notify the local environmental protection bureau (EPB) of any shifts in testing personnel within seven days. Funds will continue to be withheld until the situation is completely amended.

According to the revised article,

motorcycle emissions testing stations must suspend testing operations for three months if they make any one of the following violations when carrying out examinations: failure to follow computer software or analysis instrument user manuals or carry out standard testing procedures as stipulated; failure to perform examinations at the time and location stipulated by the local EPB; failure to retain the past two years of emissions testing records; failure to accurately mark out the testing area and waiting area with painted lines; or failure to comply with EPA regulations and regulations on metrology for computer software and emissions analysis instruments; and failure to do maintenance and calibration regularly and keep maintenance records for two years. In addition to the three-month suspension, those who are found making the same violations twice will not be entrusted with testing operations until one full year has passed.

After one year, they may reapply with environmental protection agencies.

Taiwan's motorcycle emissions testing station service has been commissioned to private motorcycle retailers since 1996. Thus far, these enterprises have shown widespread cooperation and overall implementation results have been good. As a result, now even more enterprises are competing to offer this service. The EPA indicated that there are currently around 1,900 domestic motorcycle emissions testing stations and so far only nine enterprises have had their motorcycle emissions testing permits canceled due to violations. This shows that most enterprises have no problem operating in coordination with testing service regulations.

For more information, please call 02-2311-7722 ext. 2780.

Air Quality

Recycling Fees to be Adjusted for Bicycle Tires and Paper Containers

It has been found that a large number of discarded bicycle tires are not entering recycling channels. Working to ensure that resources are effectively put to use, starting January 1, 2004, the EPA will begin to collect a recycling and disposal fee of NT\$2.4 per tire from bicycle tire manufacturers and importers. Another recycling initiative to take place next year involves adjusting the recycling and disposal fee and subsidy rates for paper tableware and containers.

It has been found that a large number of discarded bicycle tires are not entering recycling channels. Working to ensure that resources are effectively put to use, starting January 1, 2004, the EPA will begin to collect a recycling and disposal fee of NT\$2.4 per tire from bicycle tire manufacturers and importers. Another recycling initiative to take place next year involves adjusting the recycling and disposal fee and subsidy rates for paper tableware and containers.

On September 12, the EPA held a public hearing on recycling and disposal fees for discarded bicycle tires, inviting related domestic upstream manufacturers and importers to attend. The EPA used this chance to gain a better understanding of each side's views toward the recycling, clearance and disposal fees for discarded bicycle tires, which are slated to take effect

next year.

Discarded tires have been listed as a mandatory recycling item since 1989 and enterprises have been requested to pay a resource recycling management fee. Current regulations prioritize five specification standard tire categories under regulatory listing, including those with internal diameters (ID) of: under 10 inches and motorcycle tires; 10~14 inches; 15~19 inches; 20~23 inches; and 24 inches and above and other tires with special dimensions.

The EPA has indicated that the recycling efficiency of tires has substantially increased and market production already exceeds demand. In order to prevent bicycle tires from being mixed in with other discarded tires for recycling, or from being processed along with general waste either in incinerators or landfills, bicycle tires will be recycled starting from January 1, 2004. At the outset, each tire will be subject to a

recycling, clearance and disposal fee of NT\$2.4 per tire. Bicycle tires will be recycled under the same processes used for other discarded tires.

Based on cost estimates, sources of discarded bicycle tires are few and far between with less reported amounts compared to other kinds of discarded tires. The extreme elasticity of bicycle tires makes them impossible to shred with average cutting tools and many recycling plants are unable to directly process them. Therefore recycling costs are higher compared with other discarded tires. The EPA expressed that with next year being the first year to recycle bicycle tires, a great deal of stockpiled bicycle tires await recycling; for this reason, next year's bicycle tire recycling rate is likely to be much higher than average.

Another advancement in recycling next year will be in the area of paper containers. The amount of tableware and containers made from paper and plant fiber has been on the rise due to the restricted use policy on plastic tableware. As a result, the amount of recycled paper tableware and containers rose up to 3,300 metric tons between January and July this year (2003). This is a twofold increase compared to last year and it is estimated that this rate will reach 5,700 metric tons by the end of the year. However, since there has been no apparent rise in the recycling rate of paper tableware, the EPA has adopted a high subsidy rate to fuel peoples' willingness to recycle these materials. In addition some of the responsible enterprises have avoided paying recycling fees, which has sunk the recycling fund into the red. At the end of last year, the Paper Tableware Trust Fund (紙餐具信託基金) had already accumulated a deficit of NT\$11

million. It is estimated that this year, further losses will reach up to NT\$8.2 million for a total accumulated shortfall of around NT\$20 million.

Upon communicating with manufacturers, it was found that the current recycling fee of paper soup bowls is NT\$3.94/kg, comprising only 5~6% of the producer price. Meanwhile the recycling fee of the heavier seven-inch round paper plates and large-sized paper lunch boxes accounts for 14~16% of the producer price. The EPA estimates that if it can increase the recycling rate up to 40%, the Paper Tableware Trust Fund can reach an annual balance of NT\$7 million and can shunt out of the red after about three years.

To step up the recycling rate, the EPA plans to raise the current subsidy rate of NT\$7.25/kg to NT\$9/kg (entails a recycling subsidy rate of NT\$8.25/kg and disposal subsidy rate of NT\$0.75/kg). The recycling and disposal fee rate of NT\$3.94/kg will also be adjusted to NT\$5/kg, allowing the fee rate to comprise 7~20% of the producer price. This will result in a 27% increased fee rate compared to the current rate.

Containers made of plant fiber undergo the same recycling process as that of paper tableware, and therefore the recycling, clearance and disposal fee rates and subsidy rates will be adjusted similarly. This means that the current subsidy rate of NT\$5/kg will be raised to NT\$9/kg. These adjusted rates were announced during the public hearing on September 30. As related industries have voiced opposition to the proposed rate adjustment scheme, the EPA will compile viewpoints from industry and conduct assessment work as soon as possible to use as a reference when industries report fees in 2004.

For more information, please call 02-2370-5888 ext. 3502.

News Brief

Laboratory Quality Systems of Analysis Organizations Announced

Working to establish a management system for analysis organizations and improve the accuracy of analysis work, on September 1 the EPA announced the *Basic Criteria for Laboratory Quality Systems of Environmental Analysis Organizations* (環境檢驗測定機構實驗室品質系統基本規範), which will be put into effect on July 1, 2004. These criteria primarily include system management requirements and technology management requirements for analysis laboratories. These two requirements should be stated in analysis laboratory management manuals. In addition to adhering to these criteria, environmental analysis organizations should also take initiatives to review reference documents and supplement the content of laboratory management manuals. For more information, please call 03-491-5818 ext. 2104.

General Policy

Brand New Environmental Information System Goes Online

Aiming to allow environmental information that is close to people's lives become more transparent and more accessible, the EPA has integrated air quality and water body quality information and has provided an instant search function on the Environmental Information System which is now available to the public. The public can now simply go online to directly access the latest information about their living environment, and gain a deeper understanding of their immediate surroundings.

The EPA aims to provide the public with more efficient and timely environmental information as a means of actualizing the *Fundamental Environment Act* (環境基本法) and coordinating with the "e-Taiwan Plan." Starting from last year (2002), the EPA began applying Internet technology to integrate environmental information search functions, environmental terminology, and environmental statistics by establishing an Environmental Information System portal site. Now, for example, a resident of Taipei's Shihlin District can simply click on "Taipei" and "Shihlin" to access real-time monitoring data from the nearest air quality monitoring station on Wenlin North Road and find out the latest status of air quality and UV intensity.

Apart from utilizing this system to

search for information on environmental quality in their county or city, the public can also access air quality data, water body quality information, amounts of resources recycled in each county/city, each county/city's garbage clearance amounts, drinking water quality qualification rates and environmental statistics over the years. The Online Information System also provides GIS functions and statistical chart design functions. Users have access to monitoring stations' electronic maps and charts of environmental quality trends and changes.

Professionals, scholars or students who require environmental information for in-depth research can also find what they are looking for on this web site by performing compound searches with key

words, dates or locations. Users can search for all post-1996 EPA information and full documents including reports, overseas research reports, news clippings, and discussions and public hearing minutes regarding special projects.

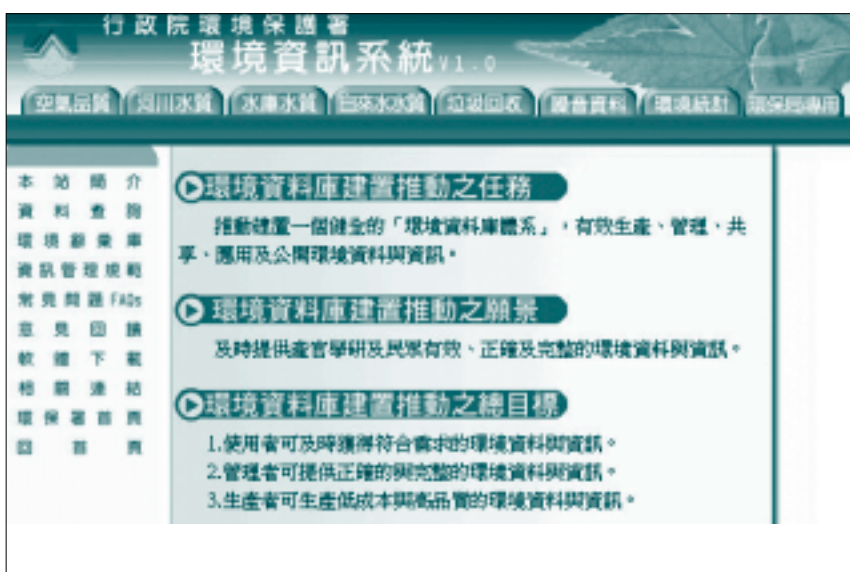
The EPA expressed that this web site is merely at the initial stage of development and still awaits the establishment of much more information and functions to provide more content and more convenient service. It is hoped that the public makes frequent use of the "suggestions and feedback" function on the website for two-way exchange and communication with the EPA. The Environmental Information System URL is: <http://edb.epa.gov.tw/>

Activity

51 Gas Stations Awarded for Outstanding Vapor Recovery Efforts

The EPA held an activity to select the nation's most outstanding gas filling stations in terms of vapor recovery initiatives. Out of the 108 filling stations that participated in the selection process, 51 stations were chosen for their excellent achievements in recovering gas vapor. Stations showing the best performance were chosen from each of three areas in northern, central and southern Taiwan. Currently already 1,767 filling stations receive EPA subsidization to install vapor recovery equipment and the nation has already reached an installation rate of 76%. The EPA issued placards to the best filling stations, and has announced the list of recipients on the EPA website for all to see. The public can visit the EPA website (<http://www.epa.gov.tw/F/index.htm>) to find out which stations have already installed vapor recovery equipment.

For more information, please call 02-2311-7722 ext. 2684.



EPA Environmental Information System homepage

Air Quality

Emission Standards Unchanged for Motorcycles Over 700cc

In coordination with the international trend to reinforce emission standards for mobile pollution sources, the EPA stated on September 1 that stage four emission standards originally slated for implementation on January 1 next year will be put into effect as scheduled for motorcycles below 700cc. However emission standards for motorcycles over 700cc will be delayed for one to two years so that stricter international standards are already in place before the EPA implements regulations for this class of motorcycle.

In view of its new membership in the WTO, Taiwan aspires to work in accord with emissions standards of motorcycles with high-volume emissions and other nations' laws, and therefore it is necessary to adjust certain related ordinances. On September 1, the EPA convened a public hearing regarding revised content in the motorcycle pollution emission standards. Invited to the hearing included the Industrial Development Bureau, the Bureau of Foreign Trade, and local environmental protection agencies and environmental protection organizations. As there were no opposing views during the meeting, this new revision is expected to be put into effect as scheduled next year.

Regarding revisions to existing motorcycle pollution emissions standards, based on the new regulations, the motorcycle emissions standards to be implemented

from January 1, 2004 (stage four emissions standards) only applies to motorcycles with engines under 700cc. Motorcycles with engines over 700cc should refer to original emissions standards (stage three emissions standards), and for the time being will not be subject to any changes. According to stage four motorcycle emissions standards, CO levels have been lowered to 7g/km and HC+NO_x levels have been reduced to 1g/km and 2g/km, respectively, for in-motion testing of new two-stroke and four-stroke motorcycles. While engines are in idle, the CO level has been reduced from the third phase level of 3.75g to 3~3.5g, and the HC content standard will be reduced from the former level of 6,000ppm to 2,000ppm in stage four. Such levels are far stricter than former standards.

Water Quality

Taiwan Joins World Water Monitoring Day Activities

In preparation for the upcoming first World Water Monitoring Day, the EPA will supply water monitoring test kits to over 2,000 junior high school and elementary school students and teachers from 81 of the nation's schools. The US-originated activity will allow Taiwan to join the ranks together with the rest of the world in monitoring water quality.

America's Clean Water Foundation held the first US National Water Monitoring Day last year to mark the 30th Anniversary of the *Clean Water Act*, attracting 75,000 participants. This year, the International Water Association and the US Environmental Protection Agency have teamed up to upgrade this event to a global platform through the first World Water Monitoring Day on October 18.

From September 18, volunteers have been supplied with water quality monitoring test kits produced by America's Clean Water Foundation for this event. The volunteers will be responsible for carrying out river and stream water

The greatest change posed by stage four emission standards to be implemented next year is that motorcycles have been categorized as either two-stroke or four-stroke, each of which are subject to a different set of emission standards. In-motion HC+NO_x emissions standards have been set much stricter for two-stroke engines compared to four-stroke engines. Moreover, the testing is carried out when the engine is cold. The EPA's ultimate aim is to use emissions standards as a way to expedite the phase-out of high-polluting traditional carburetor two-stroke motorcycles, and thereby bring about a gradual improvement to air quality.

For more information, please call 02-2311-7722 ext. 2780.

monitoring tests including the four parameters of dissolved oxygen, pH, temperature and turbidity. Results will be posted online to record the basic water quality data for water bodies around the world and track changing trends in water quality.

The EPA has purchased 200 test kits from America's Clean Water Foundation for this project. Each test kit can test 50 samples of water. Junior high school students and elementary school students will be the primary monitors for this project. By the end of September already 81 schools had signed up with a total of 159 teachers and 2001 students joining

the ranks of this global water quality monitoring volunteer effort.

The EPA pointed out that all over Taiwan starting on October 4, junior high and elementary school teachers will begin assigning students to carry out water quality monitoring on designated rivers and reservoirs. Monitoring will be completed by October 18 and the results will be sent via Internet to the EPA, which will then compile the data and enter it onto the World Water Monitoring Day website.

The EPA conveyed that participation in this event allows Taiwan's

students and volunteers to use the same testing instruments and methods to examine the quality of rivers and water bodies near their schools or neighborhoods. At the same time it allows students in Taiwan and around the world who are concerned about water resources to work together in monitoring water quality. The event will work to both fulfill educational purposes and further raise Taiwan's international visibility through providing the results online. For more information about this event or for a downloadable brochure, please visit <http://www.epa.gov.tw/monitoring/wmd/index.html> or call 02-2311-7722 ext. 2306 and 2313.

hectares or 59% belong to Pinglin Township. Based on a survey carried out by the EPA in 2000, land use areas that have a larger environmental impact within this watershed include farmland, market space, and exposed ground, comprising a total of 2,018 hectares. Pinglin Township accounts for 1,583 or 78% of these types of land use areas within the watershed.

According to the Taipei Feitsui Reservoir Administration, monitoring data from 1987 to 2002 show that TSI (trophic state index) values, which indicate the degree of eutrophication, rose from 40.8 in 1993 to 46.3 in 1998.

Thereafter, from 1999 to 2002, TSI remained around 46.0. A TSI of 50 or more indicates that the water body has reached a state of eutrophication. Based on monthly measurements of water quality over the last five years, TSI has already exceeded 50 on nine occasions. The total phosphorus, one of the biggest contributors to eutrophication, reached 33.61 mg/l in 2002. This is the highest level it has reached in history, attesting to a trend of deteriorating quality of water entering the reservoir.

The EPA indicated that generally, there are two main types of pollution that affect the water quality of reservoir watersheds. One type is point-source pollution, which

Water Quality

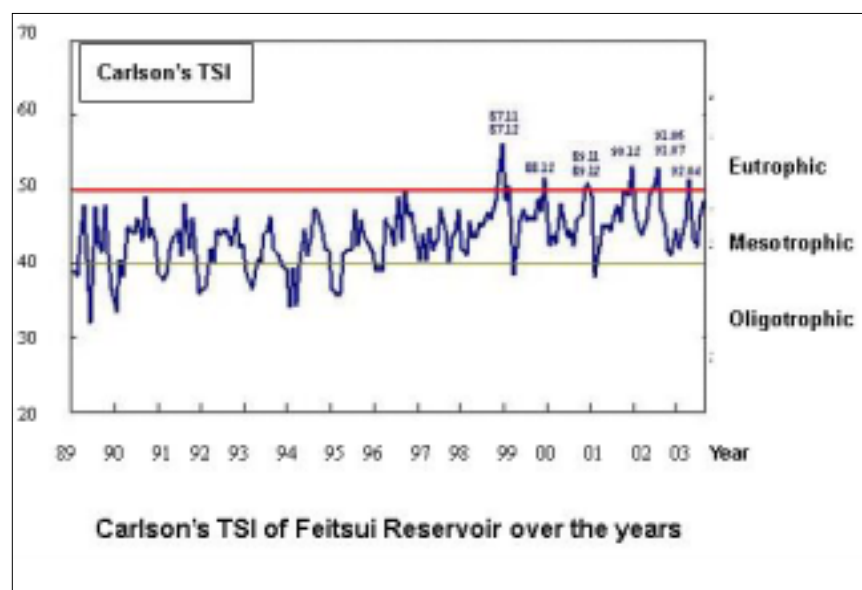
Feitsui Reservoir Water Quality Deteriorating

The EPA recently announced the status of water quality at the Feitsui Reservoir, revealing data that shows how the quality of water entering the reservoir has been declining in recent years. TSI values, which indicate the degree of eutrophication, have increasingly exceeded 50. The EPA indicated that the Pinglin Township covers nearly 60% of the Feitsui Reservoir watershed area. Development in this area has greatly affected water quality and has a great bearing on the state of drinking water quality for the several million residents of the greater Taipei area.

Recently, Taipei County's Pinglin Township (坪林鄉) residents held a local referendum vote in favor of building a highway interchange in Pinglin. The issue has raised people's concerns about the water quality within this water quality protection area. The EPA announced that the water quality of the Feitsui Reservoir (翡翠水庫) has been deteriorating in recent years. The EPA therefore warns against further development and construction within the vicinity of the Feitsui Reservoir watershed area in order to prevent further pollution damage to the water source quality.

The Feitsui Reservoir watershed

area covers a total area of 30,000 hectares, of which over 17,000



comes from daily water effluent from households, tourism areas and campgrounds. The other is non-point source pollution, which refers to pollutants from transportation, developed forestland, tea farms, orchards, exposed ground, landslides, erosion, fertilizers, and pesticides. As for point source pollution, sewage systems are available to only 40% of residential and recreational areas due to the rural and mountainous characteristics of this region, and therefore such systems are unable to effectively solve point source pollution.

As for non-point source pollution from farmland and forestland, if easy access was provided for motor vehicles, it can be foreseen that the level of traffic to Pinglin would greatly increase, followed by an increasing demand for recreational orchards, villas, and campgrounds. If such a situation is not appropriately managed, human activities would lead to increased levels of nitrogen and phosphorous and cause even more severe eutrophication. At the same time, alterations to the surrounding terrain and lay of the land would result in more exposed ground and overuse of the land. Heavy rainfalls would wash away soil and in severe instances would

lead to severe soil erosion.

The EPA indicated that pollution resulting from the development of recreation areas and farmland and forests in the upstream areas of the reservoir watershed would impact the assimilative capacity of the water quality. The EPA therefore advises that any development should be preceded by the presentation of a complete set of management measures, including aspects of land use so as to ensure that water source areas have a safe quality and quantity of water.

Demarcation of special areas to protect the quality and quantity of drinking water is necessary for the purpose of protecting drinking

water sources. Watersheds become legally designated protected areas after their boundaries are delimited and announced in legislation. Thereafter, the government, industry and the citizenry all have an obligation and duty to jointly protect these water sources that our lives depend on. Of all Taiwan's 57 reservoirs, the Feitsui Reservoir has the most potential of maintaining comparatively high quality source water because the upstream watershed area has consistently been protected and development has been kept to a minimum. If we fail to uphold this trend, it will be difficult to prevent water quality from continually declining in the future.

News Brief

Land Area Criteria for EIA Review Revised

Taking steps to both prevent industries from circumventing environmental impact assessments (EIA) as well as make datum more clear-cut for development land requiring EIAs, the EPA announced principles for calculating the cumulative sum of land area as part of the standards for development projects requiring EIAs. These principles pertain to developers that withdraw an application for an earth extraction or

mining activity after the proposed project has already been approved by the competent authority. In such a case, if the developer reapplies for development of the same site, the said land must be included within the cumulative sum of the developer's total land area. If the application for development is submitted after one year, the land should not be included in the total sum. For more information, please call 02-2311-7722 ext. 2740.

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