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Feature Article

Economic Development Advisory Committee Resolutions Implemented

When the nearly month-long Economic Development Advisory Committee Conference ended recently, its five subcommittees had issued a total of 322 resolutions. Among the many resolutions concerning environmental protection work were suggestions for improvement in the areas of waste disposal, EIAs and water pollution control. Wishing to implement the conference's resolutions, the EPA responded quickly and proposed various specific improvement measures.

Initiated by President Chen Shui-bian, the Economic Development Advisory Committee Conference ended on August 26. At the conference, the "Worsening Investment Environment" subcommittee proposed the following two basic suggestions as ways of improving the linkage between investment environment, environmental protection policy and the law: the first suggestion was to formulate environmental impact assessment (EIA) review criteria and simplified EIA procedures; the second was to harmonize environmental protection criteria and labor laws with industrial development.

The five subcommittees at the conference submitted a total of 322 resolutions, including two basic suggestions and 20 resolutions directly concerning the EPA's mission. These resolutions mostly addressed the three major issues of EIAs, waste disposal (including industrial waste disposal and recycling) and water pollution.

Turning first to the EIA issue, the EPA had already taken the step of establishing an open recommendation selection process for members of the EPA's EIA Review Committee in June (see EPM Vol. IV, Issue 7) and had expressed hope that local governments would select committee members in a similar manner. As for the conference's suggestion that EIA review criteria be established as a means of making review procedures faster, simpler and more transparent, the EPA has already formulated and announced EIA review criteria for "industrial park development," "residential community development" and "land-based gravel extraction." The EPA is currently performing research needed to formulate EIA review criteria for other types of development and expects to complete drafting and revision of EIA review criteria by the end of the year.

The EPA also expects to complete the revision of *Standards for Determining Detailed Items and Scope of Environmental Impact Assessments for Development Activities* by the end of September. By simplifying relevant total emission control regulations and expanding the scope of some items, this revision will facilitate industrial develop-

ment and the establishment of recreational farm/fishing enterprises while protecting the environment.

Since EIA reviews currently require an average of 50 days, there is a need to speed up and simplify review procedures. The EPA has therefore begun studying the feasibility of shortening EIA reviews and expects to complete this work by the end of October. Some measures to improve review efficiency, including simplification of procedures and establishment of an EIA consulting service, have already been completed.

As for the topic of waste disposal, the most salient issues can be summarized as the establishment of final disposal sites and temporary storage centers, the drafting and enactment of the *Resource Recycling and Reuse Act* (資源回收再利用法) and industrial waste disposal.

The EPA is currently employing BOT and BOO approaches to implement the *Plan for Encouraging State-run and Private Enterprises to Construct and Operate Final Disposal Sites for General Industrial Waste (including Municipal Solid Waste Incinerator Ash)* and *Plan for the Emergency Establishment of Final Disposal Sites for Industrial Waste (including Municipal Solid Waste Incinerator Ash)*, both enacted by the Executive Yuan on May 11, 2001 (see EPM Vol. IV, Issues 4 and 7). Encouraging participation by public and private enterprises will achieve the goals of improving construction quality and operating efficiency while easing the government's fiscal burden. And in accordance with the Executive Yuan's *National Industrial Waste Management and Disposal Plan*, the EPA is requiring the authorities in charge of the target enterprises to complete installation of emergency storage facilities for the industrial waste under their jurisdiction before the end of December 2001.

As for the drafting of the *Resource Recycling and Reuse Act*, the EPA has completed an initial draft and submitted it to the Executive Yuan for review in June [editor's note: the Executive Yuan approved this draft on August 29]. After passing review, the act will be sent to the Legislative Yuan for deliberation. The act calls for the EPA to actively implement "reverse recycling mechanisms," in which enterprises reclaim waste goods through their sales channels for recycling. These mechanisms will lead to the establishment of robust waste recycling and disposal channels, while sharply cutting operating costs.

With regard to the issue of inter-county/city industrial waste disposal and inter-district operations, the EPA has required counties and cities to actively

follow EPA instructions issued in July 1999. These instructions stated that, in the case of public and private waste clearance and disposal organizations that have been licensed by environmental authorities, environmental authorities at all levels must not restrict the activities these organizations were originally licensed to perform. The EPA is now in the midst of reviewing and revising the *Regulations Governing Management Assistance for Public/Private Waste Clearance and Treatment Organizations*; this revision will seek to assist counties and cities to resolve waste disposal problems by eliminating restrictions on inter-district operations.

With respect to the issue of water pollution control, the EPA is still at odds with petrochemical firms over the collection of soil and groundwater pollution remediation fees (see EPM Vol. IV, Issue 8). The EPA states that it will continue to negotiate fee items and fee rates with firms and relevant scholars and will lighten the burden on firms by implementing fee collection in stages.

As for effluent standards for traditional manufacturers, firms have suggested that, in keeping with the approach adopted in developed nations, monthly average values should be used as control

standards. The EPA has responded to this suggestion by noting that not all developed countries use monthly averages and that most still maintain controls on maximum daily values. Out of concern for the transient impact pollution discharges may have on bodies of water, the EPA still insists on controlling maximum discharge values. Nevertheless, the EPA still plans to commission specialists to study control standards and make sure they are reasonable. To facilitate the control of average discharge values, the EPA will promote the installation of continuous monitoring or sampling equipment at petrochemical firms.

It can be seen that the EPA is taking active steps to implement the resolutions put forth by the Economic Development Advisory Committee Conference and that it has drawn up specific implementation timetables and methods. As for laws that have not yet finished the legislative process, it is hoped that the Legislative Yuan will complete this work during its new session. To insure that the policies that have already been implemented run smoothly, the EPA will subject them to strict management and oversight and will make constant efforts to explain measures to the public. ◀

EPA Administrator Reports to President on River Cleanup Efforts

EPA Administrator Lung-Bin Hau presented the special report “Rivers and Waterways—Taiwan’s Lifeblood” at the President’s monthly conference. This report summarized the current state of river and waterway pollution, described the EPA’s pollution control measures and appealed to the public to protect Taiwan’s lifeblood—its rivers and waterways. The report will serve as an important reference for those wishing to understand the EPA’s major policies.

EPA Administrator Lung-Bin Hau presented a special report entitled “Rivers and Waterways—Taiwan’s Lifeblood” at the monthly conference held on the 20th of August at the Office of the President. President Chen Shui-bian personally presided over this meeting. The content of this report consisted of an introduction, overview of the current state of river and waterway pollution, pollution remediation projects and their implementation, and conclusions and future prospects. Of these four sections, the third section—“Taiwan River and Waterway Pollution Remediation Planning and Implementation”—comprised half of the report and clearly describes how the EPA is working to clean up river and waterway pollution, as well as current results and the shape of future plans. The report will thus serve as an important reference for those wishing to understand the EPA’s key policies.

In the introduction, Administrator Hau em-

phasizes that the remediation of river and waterway pollution has become the most important issue in Taiwan’s environmental protection work. The reason for this is that, due to Taiwan’s overdevelopment and lack of natural environment, river pollution threatens both public health and the safety of drinking water. Administrator Hau also stated directly that the EPA’s river and waterway pollution cleanup work has already run in to many obstacles. In this regard, ongoing monitoring of river and waterway water quality conducted over the years by the EPA has revealed that the proportion of severely polluted river sections in Taiwan has fallen only from 14.9% in 1996 to around 12% today.

The EPA’s planning and implementation of river pollution remediation in recent years has centered primarily on the following:

A. Cleanup of rivers and waterways in accordance with the characteristics of their pollution: polluted rivers and waterways are categorized on the basis of whether the pollution results from industry, livestock farming or household wastewater.

1. The general plan for cleaning up rivers and waterways polluted with industrial waste is to 1) first clean up the Erhjen River by compelling the removal of illegal smelters on the riverbanks (see EPM Vol. IV, Issue 7) and 2) use reasonable effluence standards to control industrial wastewater emissions.

2. The general plan for cleaning up rivers and waterways polluted with livestock wastewater is to 1) remove livestock farmers with compensation from the water source areas of five major river basins, 2) clean up pollution in the Kaoping River basin and raise the quality of drinking water in the Greater Kaohsiung area, and 3) promote low-pollution livestock raising techniques outside of water source areas.

3. The general plan for cleaning up rivers and waterways polluted with household sewage is to 1) implement a special pollution remediation project throughout the Tamshui River system and 2) implement a pollution remediation project in the Putzu River basin.

B. Improvement of the environmental quality of rivers and waterways and creation of more recreational space: Administrator Hau noted that the EPA initiated a river and waterway management program in 2001, will continue to clean up pollution in Erhjen and Chiangchun rivers in 2002, and will add the Peikang River, Tsengwen River, and other rivers in the future. The main focus of this program is on cleaning up dirty places along the banks of these rivers, improving river ecology and providing the public with waterside recreational spaces. In addition, special inspections will be conducted of polluting behavior along riverbanks and in river basins, controls imposed on pollution in watershed areas, water quality improved in upstream reservoir watershed areas, promote the use of riverbanks for wastewater treatment, and urban pollution problems improved. On the whole, the EPA expects these efforts will reduce the amount of pollution by 30%.

Administrator Hau's US Visit Strengthens Bilateral Cooperation

In the wake of a June trip to Hong Kong, EPA Administrator Lung-Bin Hau paid an official visit to the US in late July and met with the head of the US EPA, strengthening Taiwan-US cooperation in the area of environmental protection.

EPA Administrator Lung-Bin Hau and three EPA officials held a meeting with the US EPA on July 31 at the US EPA's headquarters. US EPA Administrator Christine T. Whitman attended accompanied by officials of the International Services Office, along with Mr. Chen Chien-jen, head of the Taipei Economic and Culture Representative Office in the United States and Richard C. Bush, executive chairman of the American Institute in Taiwan.

Apart from being the first meeting between the heads of Taiwan's EPA and the US EPA since the establishment of Taiwan's EPA, the conference was also the first time that Taiwan and the US held a face-to-face ministerial-level conference since the Bush Administration took office. It thus represents

C. Formulation of economic incentives and collection of water pollution control fees: The basic principle behind water pollution control fees is the "polluter pays." The EPA is using economic tools to reduce pollution at the source and minimize emissions. The European countries that have adopted this approach, such as the Netherlands, Germany, and France, have seen a significant drop in pollution indicators even as production indicators have risen.

D. Raising funding and increasing manpower to better control river and waterway pollution: Over the last few years river and waterway pollution has tended to come from moveable pollution sources which dump solid and liquid hazardous wastes. Trying to control this type of pollution has caused a heavy burden on the EPA's manpower. And because of fiscal constraints, there has been a significant shortfall in cleanup funding. In addition, local environmental authorities are also short of funds. The EPA therefore faces the major issue of how to best implement its pollution prevention mission with extremely limited funding.

This final part of the report consists of Administrator Hau's vision of future environmental protection work. Administrator Hau also expressed his hope that when even greater challenges are faced in the future, relevant agencies, the industrial sector, environmental organizations and the general public will all support environmental protection efforts and work together to protect Taiwan's lifeblood. It is the EPA's greatest desire that the next generation will enjoy the happiness of growing up among green mountains and sparkling waters. 

a major diplomatic breakthrough for Taiwan.

The two environmental protection heads conducted a wide-ranging discussion of such issues as the direction of future Taiwan-US cooperation and how to help Taiwan participate in international environmental protection convention organizations. Administrator Whitman personally told Hau that she would exert herself to the full to strengthen Taiwan-US environmental protection cooperation and assist Taiwan in joining international environmental protection convention organizations. This was by far the largest achievement of Administrator Hau's US visit.

The EPA notes that environmental protection cooperation agreement between Taiwan and the US was signed on June 21, 1993 and letters were exchanged extending the agreement's term on July 30, 1998. For this reason, the recent EPA administrators' conference was both a chance to strengthen bilateral ties and propose new items of cooperation to Administrator Whitman, including monitoring of

sandstorms, carbon dioxide reduction measures and other regional environmental issues. With assistance from the US, Taiwan will use the sandstorm project as a model and lead a multilateral North Atlantic regional air quality monitoring network, while providing personnel training. This proposal received Administrator Whitman's immediate assent.

AIT Executive Chairman Bush arranged for Administrator Hau to meet with State Department officials at a breakfast before the conference. Administrator Hau used this opportunity to discuss such issues as the state of environmental protection in Taiwan, Taiwan's participation in international environmental protection conventions, and how to respond to the US signing of the Basel Convention. In addition, Administrator Hau also had a chance to meet with Washington D.C.-area environmental protection officials and specialists of Chinese ancestry who were concerned about environmental protection in Taiwan. A lively discussion of environmental protection in Taiwan ensued,

showing that overseas Chinese are very concerned about the environment in Taiwan.

Administrator Hau also visited the Maryland State Bureau of Environmental Protection and toured local environmental protection facilities, including the Clean Harbor hazardous industrial waste disposal site and the Kurt Iron and Metal Property ship-breaking yard, a pollution site currently undergoing clean up. After hearing about this state's hazardous waste management principles and its encouragement of public and private organizations that wish to purchase and develop brown field sites, Administrator Hau felt that Maryland's ideas might be extremely useful in Taiwan.

Although Administrator Hau's visit to the US lasted only three days, it has lent great impetus to Taiwan-US environmental protection cooperation on specific topics. In addition, the meeting between the two EPA administrators represented a major diplomatic milestone for Taiwan. 

Toxic Chemical Detection and Warning Equipment Guidelines Revised

The EPA has announced revisions to the *Toxic Chemical Substances Detection and Warning Equipment Installation and Operation Guidelines*. These eliminate requirements that enterprises submit equipment installation plans to local environmental agencies before installing this type of equipment. Revisions were also made to the range of targeted operations, procedures for repairs following breakdowns and the keeping of maintenance and calibration records.

To prevent toxic chemical disasters, the EPA on July 31 announced revisions to the *Toxic Chemical Substances Detection and Warning Equipment Installation and Operation Guidelines* (毒性化學物質偵測及警報設備設置及操作要點). These include major changes to the range of targeted operations and procedures for installing equipment.

The revised guidelines reduce the range of operations required to install detection and warning equipment. Installation of this equipment will no longer be necessary for Category I, II and III toxic chemical substances that remain in a liquid state during operations and have a vapor pressure below 0.5 mmHg at 25°C or dissolve from a solid state to a liquid state under normal temperatures and atmospheric pressure.

The revised Guidelines also stipulate that the installation of detection and warning equipment will no longer be necessary for small operators when their individual operation volumes are lower than regulated control volumes.

Past regulations required that detection and warning equipment installation plans first be submitted to local environmental protection agencies before

installations could begin. Since many companies have protested that this procedure is too complicated, this requirement has been eliminated from the revised Guidelines. In the future, as long as enterprises install equipment according to the regulations in the revised Guidelines, following applications for permits can be submitted based on the installation documents.

In the case of equipment breakdown, the revised Guidelines stipulate that the enterprise shall complete repairs within five days. If repairs cannot be completed within this time, a written explanation of the repair plan must be submitted to the local environmental protection bureau. Repairs may not exceed three months, but if necessary, the company may apply for a three-month extension.

The frequency of maintenance and calibration of detection and warning equipment remains unchanged, but calibration methods are no longer subject to restrictions. The period for which maintenance and calibration records shall be kept has been shortened to one year.

If warning value settings have not been established by the EPA, and if there are no other established standards for the permissible concentration of harmful substances in the work environment, warning value settings may not exceed 250 mg/m³ of air when values are set to 25°C at one atmosphere (atm). Reading ranges on indicator instruments are no longer regulated in the revised Guidelines. Enterprises are now granted the flexibility to set these ranges according to their specific needs. 

Feature Article

EPA Promotes Intensive Observation Plan for Sandstorms

EPA air quality statistics show that sandstorms of varying sizes that originated in China affected Taiwan's air quality two times in 1999, five times in 2000 and seven times this year. When these sandstorms blow in, the concentration of airborne particles rises dramatically, negatively affecting the health of people with respiratory diseases and people with weaker immune systems such as the elderly and children. The EPA has therefore formulated its *Chinese Sandstorm Intensive Observation Plan (Draft)*. This plan aims to improve the monitoring and prediction of sandstorms and the evaluation of their health effects in order to facilitate better handling of this threat in the future.

Sandstorms occur when strong winds whip up massive volumes of sand and dust into the air. During these disastrous weather phenomena, visibility can fall to less than one kilometer. Visibility can even plummet to below 50 meters during intense sandstorms, called Black Winds. The majority of Chinese sandstorms originate in the arid and semi-arid regions of northwestern China and in the great deserts, barren areas and developed farmland of north China and in particular in the area west of the Yellow River in Gansu Province and the Alashanmeng region of Inner Mongolia.

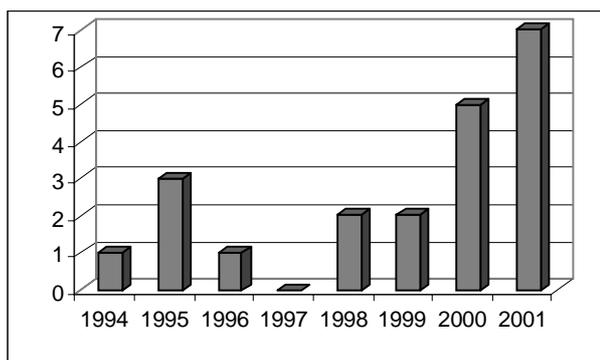
The elements necessary for the formation of sandstorms are a region with vast amounts of sand and dust, strong winds and an arid climate. Consequently, the occurrence of sandstorms is directly related to global climate change. The destruction of plant cover by human activity which brings about the expansion of deserts and barren land is also one of the primary elements responsible for the repeated occurrence of sandstorms. The period from the end of winter to spring is the primary season for Chinese sandstorms, with over 60% happening from February to April.

In the past, the sands stirred up by Chinese sandstorms have been carried eastward by high atmosphere westerly winds to the Korean peninsula and Japan. However, under special weather conditions, this sand will be carried by cold high pressure systems as far south as Taiwan. The first instance of a Chinese sandstorm affecting the air quality of Taiwan was recorded in areas from Chiayi County to the north of Taiwan in April 1988. PM₁₀ levels skyrocketed during this sandstorm, with monitoring stations in these areas, including Hualien County, reporting PM₁₀ levels of 201 to 422 micrograms per cubic meter per hour.

Both the frequency and intensity of Chinese

sandstorms have been increasing in recent years. This has led to a significant increase in the number of times per year Taiwan's air quality is impacted by these sandstorms, especially in the last two years. The public is becoming more and more concerned about just what effect sandstorms have on human health.

The EPA points out that airborne dust easily



The number of times per year Taiwan's air quality has been affected by Chinese sandstorms in recent years

leads to an increase in the occurrence of eye and respiratory diseases, especially among the elderly and the young who are less able to adapt to environmental changes. Fine particulate matter carried by sandstorms enters the lungs where it can remain and causes health problems. What's more, not only is the threat of sandstorms to Taiwan gradually increasing, Japan and the Korean Peninsula are also heavily affected; airborne particles from these sandstorms even make it to the west coast of Canada and the US. From this it is easy to see that the increase in Chinese sandstorms has already become a major international air pollution issue. The EPA also predicts that the effect of these sandstorms on Taiwan will gradually worsen over the next five to ten years.

Therefore, in addition to enhancing its forecasting and monitoring of sandstorms, the EPA has begun this year to invite specialists and scholars with expertise in the fields of environmental engineering, atmospheric sciences, physics, remote sensing and public health to pursue scientific research on the effects of sandstorms on Taiwan. This research has been commissioned in order to formulate the *Chinese Sandstorm Intensive Observation Plan (Draft)* which is aimed at improving the monitoring and prediction of sandstorms and the evaluation of the negative health effects they cause. This plan will

be used by the government in order to protect the health of the public.

General Director of the Environmental Monitoring and Data Processing Bureau Yang Chih-yuan (楊之遠) will be convener of this observation plan. Also, five work groups will be established for the following items: Chinese sandstorm forecasting and modeling development, Chinese sandstorm monitoring, health effects evaluation, administrative support and research.

The above preparatory work for this sandstorm observation plan was completed in the first half of the year. Simulation exercises will be completed before the end of the year in order to prepare

for the sandstorms that might blow into Taiwan from January to May next year. Analysis of the observation results will be conducted immediately so that they can be applied as quickly as possible in making sandstorm warnings, conducting further research and protecting human health.

In the future, this sandstorm observation and research work will not be suspended when this observation plan is completed. Also, the EPA will not limit its efforts to Taiwan. It has already approached the US EPA about cooperating on sandstorm observation and research focused on Asia. This would mark the beginning of the promotion of an international cooperation on sandstorm research. ◉

EPA to Issue Water Pollution Incident Response Handbook

The EPA is expected to soon complete the “Water Pollution Incident Response Operating Handbook” and will thereafter classify water pollution incidents on a three-grade scale. Whenever a water pollution incident occurs, local environmental protection authorities must take immediate measures to prevent the pollution from spreading.

The EPA invited various local environmental authorities on the 16th of August to compile an initial draft of the “Water Pollution Incident Response Operating Handbook.” In the future this handbook will serve as a basis for the handling of major water pollution incidents by local environmental authorities. The EPA has stated that after the handbook has been finalized, which will happen around the end of August at the soonest, it will be printed and distributed to local environmental authorities.

The initial draft of the “Water Pollution Incident Response Operating Handbook” includes four operating handbooks: In order, these are 1) “Working Guidelines for Water Pollution Incident Emergency Response Measures,” 2) “Operating Handbook for Response to Industrial Park Sewer System Emergencies,” 3) “Operating Handbook for Response to Tamshui River System Sewer System Emergencies” and 4) “Working Guidelines for Water Pollution Incident Emergency Response Measures in Counties and Cities.” “Working Guidelines for Water Pollution Incident Emergency Response Measures,” the most important of these, lays out detailed water pollution incident definitions and response principles, with the overriding goal of preventing the spread of pollution.

According to the stipulations of “Working Guidelines for Water Pollution Incident Emergency Response Measures,” so-called “water pollution incidents” include pollution of major rivers and waterways, lakes, reservoirs, harbors and inlets, groundwater, and drinking water sources caused by

leakage of surface oil storage tanks; pipeline rupture or operator error; malicious illicit discharges; illicit dumping of wastewater (or sewage); or damage to major wastewater disposal facilities caused by wind, flood, earthquake, fire or other natural disaster. Any incident of these types is within the scope of the water pollution incident response procedures.

As for how to respond to a water pollution incident, the guidelines for emergency response measures specifically state that action be taken according to the grade of the incident:

Grade 1 incidents, to be handled by local authorities, may take one of the following forms: pollution of a water supply source affecting less than 5,000 tons of water; pollution of less than 2km of irrigation ditch or less than 5,000 hectares of irrigated land within one administrative area; or relatively minor pollution of a river or waterway, reservoir, lake, or groundwater.

Grade 2 incidents, to be handled by the EPA in coordination with local authorities, may take one of the following forms: pollution of a water supply source affecting more than 5,000 tons of water; pollutants containing regulated toxic chemical substances that cannot be handled by local authorities; or water pollution covering an extensive area or having a major ecological impact.

Grade 3 incidents, to be handled by central government agencies acting in coordination (an inter-agency emergency response task force will be formed after the incident is reported to the Executive Yuan Disaster Response Center), consist of all water pollution incidents that cannot be handled as Grade 1 or 2 incidents due to their severity, and include: pollution of a water source causing the death of 15 or more persons; pollution of a body of water exceeding 50 hectares in area or irrigated land ex-

ceeding 50,000 hectares in area; a sudden die-off of large numbers of fish in rivers or waterways along with the death of waterfowl and other organisms; or major oil spills or groundwater pollution incidents, etc.

The emergency response guidelines in this handbook are modeled on the *Emergency Response Plan for Severe Marine Oil Pollution* approved by the Executive Yuan in April of this year. The EPA has noted that because the handbook is merely an initial draft, it cannot be considered the final word on every issue and may be revised in the future. Local

environmental authorities are urged to submit comments to the EPA to be used as a basis for subsequent revisions. To be ready to take immediate action in the event of a water pollution incident, local environmental protection personnel should carry the handbook with them and be familiar with its content. Because the purpose of the handbook is to reduce the extent of pollution incidents, local environmental authorities must take action and notify the EPA as soon as possible whenever an incident occurs and may not use the above grading system as an excuse for inaction. 

EPA Developing Funding Sources for Water Pollution Control

Current local government budgeting practices often leave little funding for water pollution control work. Therefore, in 2002, the EPA is allocating a special subsidy of NT\$ 530 million for pollution remediation work on the six most seriously polluted rivers in Taiwan. It is also actively working on the completion of a legal basis for the levying of water pollution fees in order to insure that local governments can continue the full implementation of their water pollution control projects.

The EPA decided on August 7 that, as one of the major aspects of distributing subsidies for local governments in 2002, it would allocate NT\$ 530 million for pollution control work on six of the most polluted rivers and streams around the nation. However, as the results of water pollution remediation work can only be seen through the implementation of long-term projects, the EPA is also planning revisions to laws governing the collection of water pollution fees in order to provide more stable funding for the water pollution remediation work of local governments.

In 2001, the method for distributing Central Government subsidies to local governments was changed from one in which subsidies were handed out in individual sums for individual budgets to one in which one lump sum is presented for local governments for them to determine how it will be distributed among various projects. However, this resulted in much funding which was originally earmarked for river pollution control work being allocated for other projects, leaving river pollution control projects short of funds.

Therefore, beginning in 2002, the EPA will select for subsidization and promotion the most important water pollution control plans of county and city governments under the theme "Strengthening Basic Environmental Infrastructure Subsidies." The primary targets of this plan are the six rivers that have suffered the greatest water pollution. These six

notorious rivers are the Erhjen River, Chiangchun River, Putzu River, Chungkang River, Tsengwen River and Peikang River.

The EPA has required that the county and city governments in charge of these six rivers present remediation plans for their clean up. Also, other local governments that require emergency funding for their water pollution remediation plans may apply for subsidies on an individual case basis. However, these plans must be presented to the EPA by September 15 in order to allow adequate time for reviews.

The EPA has also presented the following projects as primary targets of its water pollution remediation subsidization work: the promotion of technology for low-pollution hog farming; the clearing of trash for river surfaces and river banks; pollution control for reservoir watershed areas; the greenification of riverside areas (a maximum of NT\$ 90 million can be allocated for this in 2002); river water quality monitoring; the promotion of public participation in river water pollution control work; and other projects that require urgent attention.

Also, attending a monthly meeting with the President on August 20, Administrator Hau pointed out that the EPA is presently working hard on making revisions to the legal basis for the collection of water pollution control fees. These revisions intend to use economic incentives in order to achieve the goal of pollution reduction.

Administrator Hau stated that levying water pollution fees can, on the one hand, improve the water pollution situation by prodding enterprises to improve their water treatment systems as well as reduce effluence, while, on the other hand, it can also advance the development of the environmental protection industry and stimulate economic growth. He said these fees are a preventative and proactive form of pollution control fee.

A legal basis for the levying of water pollution fees was established with the passage of the *Water Pollution Control Act* (水污染防治法) in May of 1991. Article 11 of this act called for the collection of water pollution control fees from polluters based on the character and volume of their effluence. These fees were to be used solely for water pollution control work. However, while the *Regulations for the Collection of Water Pollution Control Fees* (水污染防治費收費辦法) was announced in January 1998, problems concerning the

Premier Visits EPA and Offers Support

Executive Yuan Premier Chang Chun-hsiung toured the EPA in August in order to take a look at environmental protection services. Having long encouraged the EPA to transform Taiwan into a "Green Silicon Island," the Premier is lending his full support to the EPA's environmental protection measures, including the plan to establish recycling zones, the *Sewage System Development Program*, the *National Industrial Waste Management and Disposal Plan* and the policy of removing livestock farmers from the Kaoping River Basin and four other major river basins.

When Executive Yuan Premier Chang Chun-hsiung visited EPA headquarters on the 21st of August, he was welcomed by EPA Administrator Lung-Bin Hau and various EPA department heads, who reported on their work. After listening to reports, the Premier commended his EPA colleagues for their hard work and instructed the EPA to fully implement a number of items.

Premier Chang quoted President Chen Shui-bian's new vision of "finding a compatible compromise position between conservation and economic development and transforming Taiwan into a 'Green Silicon Island' of sustainable development"—originally announced at the first anniversary of the President's inauguration on May 20th (see EPM Vol. IV, Issues 3 and 5)—several times in his speech to the EPA. Chang also emphasized that the EPA must bear a heavy, long-term responsibility if this vision is to become a reality.

Premier Chang paid tribute to Administrator Hau, who has acted swiftly to deal with the many sudden environmental incidents that have occurred since he assumed his post in March of this year. Administrator Hau personally visited the scenes of many incidents to facilitate communication between the parties involved and insure that public interest was upheld. Mentioning recent industry complaints concerning the EPA's environmental protection tasks, the Premier encouraged EPA personnel to be open-minded and accepting of criticism, while actively explaining their motivation in order to resolve needless doubts.

targets of these fees and authorization have meant that fee collection has not begun yet.

The draft revisions to the *Water Pollution Control Act* have already been sent to the Legislative Yuan for deliberation. The EPA will continue to strive for the completion of a solid legal basis for the collection of water pollution control fees so as to insure that local governments have access to subsidies and more stable funding sources, thus allowing them to implement their water pollution control and river pollution remediation projects. 

Premier Chang concluded his speech by emphasizing that Taiwan faces the new challenges of environmental protection, social reform and the knowledge economy. This will require that government strengthen basic reforms while paying attention to economic development, ecological balance and social justice. The Premier appealed to everyone to work hard and transform Taiwan into a beautiful, powerful and socially equitable high-tech nation.

After his speech, Premier Chang immediately listened to EPA work reports and then gave several instructions. The first instruction was that the EPA implement the Economic Development Advisory Committee's resolutions by swiftly reviewing and revising EIA procedures and review standards and then submitting them to the Executive Yuan for approval before September 13. The second instruction was that the EPA must speed up the implementation of its plan to establish recycling zones, the *Sewage System Development Program*, the *National Industrial Waste Management and Disposal Plan* and its policy of removing livestock farmers from the Kaoping River Basin and four other major river valleys. If the implementation of any of these measures must involve other agencies, the Executive Yuan will hold inter-agency discussions to coordinate a solution. The third instruction was to put the environmental disaster response system on a sound footing; here Premier Chang requested that the EPA review its disaster notification system and immediately notify the Executive Yuan whenever an emergency occurs. The fourth instruction was that, because the EPA's budget implementation rate for the Executive Yuan's *8100 Taiwan Starts Moving* economic stimulus plan is too low, the EPA should review the situation and take remedial action. Chang exhorted the EPA to overcome difficulties and achieve its objectives before the end of the year.

Premier Chang's inspection of the EPA ended after about an hour. Administrator Hau held a press conference after the Premier had left and used the

opportunity to repeat and elaborate on the Premier's instructions. Administrator Hau stated that, with respect to EIA operating procedures, the EPA Comprehensive Planning Bureau had already begun developing review criteria for local governments to use when performing EIAs (see EIA article below). As for the establishment of recycling zones, changes in the disaster notification system and industrial waste disposal issues, Administrator Hau confirmed that the EPA will take prompt action in

the near future and will request the Executive Yuan's approval for any changes. Administrator Hau explained that the low budget implementation rate was a result of the bankruptcy of contractors building county and city incinerators. The Keelung and Ilan Litse incinerators, for example, have been delayed for this reason. The EPA plans to call for tender in September and expects to be back on schedule by the end of the year. 

PET Bottle Refunds to Remain Until Year End

EPA Administrator Lung-Bin Hau announced on the 7th of August that, out of consideration for those underprivileged individuals who sustain themselves by collecting recyclable garbage, the existing PET plastic bottle recycling fund system would be maintained along with a new in-plant inspection program until at least the end of the year.

Since the existing system of offering a recycling refund of NT\$0.5 for every PET bottle turned in has continuously generated severe losses, whether or not to maintain this system has been a matter of concern for businesses and the public. Addressing this issue, EPA Administrator Lung-Bin Hau announced to the public on the 7th of August that the NT\$0.5 recycling refund will be maintained until at least the end of this year out of consideration for the 30% of recyclers who depend on refunds for part of their livelihood. However, to cut losses, the EPA will propose specific accompanying measures to strengthen inspection of recycling firms.

Among the steps to be taken, the EPA Recycling Fund Management Committee will begin implementing a two-stage in-plant inspection program beginning in the second half of the year. During the first stage, to begin in mid-August, the committee will commence in-plant inspection work and strengthen auditing of under-reporting and failure to make payments by manufacturers and users of materials that are regulated as recyclable materials. During the second stage, to be carried out from October 1st until the end of the year, a program of regular in-plant inspections will be implemented. Inspections will target firms suspected of reporting or payment irregularities, as well as firms accused of irregularities by the public. At least five firms will be inspected every week. These inspections will pro-

vide a better understanding of the workings of the manufacturers and users of recyclable materials.

The EPA has emphasized that, regardless of whether recycling refunds continue or are eliminated, there is a consensus that the most important task at hand is to strengthen auditing of the figures reported by both recycling enterprises and manufacturers and users of recyclable materials. The goal of the EPA's in-plant inspection program will be to improve auditing and recover recycling fees from the manufacturers and users of recyclable materials that underreport the volume of recyclable materials they produce or use. This effort is intended to convince enterprises that they should not try to get away with lapses when reporting and paying fees. The EPA will consider modifying the recycling refund system only after initiating these auditing investigations.

Administrator Hau emphasized that if the PET bottle recycling refund is eliminated before any appropriate accompanying measures are in place, this would hurt both firms that faithfully pay their fees and also the roughly 30% of bottle-collectors (mostly impoverished elderly persons) who depend upon recycling for their livelihood.

The fact that the PET bottle recycling rate is now an exceptionally high 140% shows that under-reporting by manufacturers and users and over-reporting by recycling firms are both extremely widespread. Since Administrator Hau has promised to maintain the recycling refund system until at least the end of the year, the EPA hopes that strict in-plant inspections will quickly cut this unreasonable recycling rate to 118% and then gradually restore a normal situation. The ultimate goal is to reduce the losses of the Resource Recycling Management Fund. 

Eight Measures for Improving EIA Reviews

The lack of efficiency in conducting environmental impact assessment reviews has drawn attention from many quarters recently. Therefore, the Executive Yuan presented a report on its evaluation of current EIA review systems to a 9-person taskforce from the Office of the President in the middle of August. In this report, EPA

Administrator Lung-Bin Hau presented eight specific measures for improving the efficiency of EIA reviews. One of these measures calls on local governments to adopt open recommendation selection systems for the members of EIA review committees in order to make the EIA review process more impartial and transparent.

President Chen Shui-bian, touring Quanta Display's TFT-LCD factory on August 16, stated that the EIA review committees of local governments should not be obstacles to investment by enterprises and called for a re-evaluation of the current EIA review system.

The Executive Yuan presented a report on its evaluation of current EIA review systems to a 9-person taskforce from the Office of the President on August 21. This report aimed to address President Chen Shui-bian's recent question "how do we improve the efficiency of EIA reviews?" and criticisms that the time required to complete EIA reviews is too long and the review standards adopted by the various local governments are different. In this report, EPA Administrator Lung-Bin Hau presented eight specific measures for improving the efficiency of EIA reviews, all of which received the support of President Chen.

The eight measures presented by the EPA are outlined below:

1. Establish standardized operational procedures and systems for EIA review committees. The EPA will evaluate the review procedures utilized by EIA review committees and suggest that local governments achieve review resolutions through majority decisions rather than consensus decisions.
2. Establish clear standards for EIA reviews, including standards for review subjects, measurement criteria and evaluation techniques, in order to make the review timetable more definite, systematic and streamlined.
3. Define standards for selecting members of EIA review committees. Special selection committees will accept recommendations from the public for EIA review committee candidates and make appointments based on these recommendations.
4. Formulate clear guidelines for finalizing, supplementing and correcting EIA documents.
5. Factories applying to set up in industrial parks, science-based industrial parks and export processing zones will be exempted from EIA reviews when their pollution output does not exceed originally approved total quantity control (TQC) limits.
6. Simplify review procedures for environmental permits so that enterprises that have already undergone environmental impact assessments will be able to undergo streamlined reviews of their water pollution control plans, waste clearing and disposal plans and installation

permits for stationary pollution sources.

7. Addressing the problem of differences between the environmental standards of local governments and those of the Central Government, the EPA will urge local governments to move quickly in formulating, based on such national laws as the *Water Pollution Control Act* and the *Air Pollution Control Act*, pollution emission standards that meet the particular requirements of the areas they govern. These standards will be provided to developers so they can begin planning accordingly as soon as possible.
8. So as to be effective in encouraging local governments to improve the efficiency of EIA reviews, the Central Government will cut funding subsidies for the environmental programs of governments that do not cooperate in implementing the above measures.

Following the meeting, spokesperson for the 9-person taskforce Executive Yuan Secretary-General Chiou I-jen asserted that President Chen's criticism of the EIA review procedures for the Quanta Display case was not solely aimed at this single development project. He said that President Chen had discovered that the EIA review systems currently utilized by local governments still lead to problems in the passage of EIA reviews and that there is a great deal of room for improvement. Secretary-General Chiou also clarified that President Chen's statements were not aimed at achieving the passage of the Quanta Display case in particular nor were they meant to signal that he was willing to sacrifice the environment.

Administrator Hau had earlier also pointed out that, while maintaining the quality of reviews, the review period for EIA cases from January to June of this year was held to 40 days or less—a significant improvement in efficiency compared to last year. Administrator Hau stressed that there is no problem with the EIA review system itself, but conceded that perhaps there is some room for improvement with review efficiency and implementation. Declaring that the EIA system must be impartial and fair, Hau noted that since taking office he has instituted an open recommendation selection system for selecting members for the EIA Review Committee (see EPM Vol. 4, Issue 7)—an important change from the previous system in which the EPA administrator personally appointed members of this committee—and has invited representatives from other ministries to sit on the committee in charge of selecting members of the review committee. Administrator Hau noted that

these improvements allow the public and the government to work together in selecting specialists and scholars to sit on the review committee, thus creating a truly representative committee that can effectively defend the environment and strive for sustainable development. Therefore, among the eight

measures aimed at improving EIA review systems, Administrator Hau proposed that local governments also adopt this type of selection method and establish clear standards for EIA reviews in order to make their EIA review systems more impartial, open and transparent. 

News Briefs

EIA Review Committee Selected under New System

The EPA announced its selection of the new specialist and academic members of the fourth EPA EIA Review Committee on August 7. Of special importance is the use for the first time of a new open recommendation selection system.

EPA Fights Resumption of Smelting along Erhjen River

The southern division of the EPA Chief Inspectorate and the Tainan County Bureau of Environmental Protection recently discovered conclusive evidence that three illicit smelters had been operating along the Erhjen River. To thoroughly stamp out continued smelting operations, the EPA called on the city and county governments to take strict action against the illicit smelters. Apart from administrative penalties, Article 22-3 of the *Waste Disposal Act* calls for such repeat offenders to be notified in writing of legal action against them and for their operations to be immediately dismantled in order to eliminate lawbreaking and underscore public authority.

EPA Appeals for Dengue Fever Prevention

According to an EPA survey, there had been a total of 33 cases of Dengue fever reported in Taiwan this year as of the 14th of August; 29 of these cases had been brought in from overseas (87.9%), while 4 (12.1%) were contracted locally. Most indigenous cases of Dengue fever belong to types 1 and 3, which can readily

lead to the often-fatal hemorrhagic variety. The EPA therefore appeals to the public to prevent Dengue fever by getting rid of all water-filled containers in which disease-carrying mosquitoes might breed.

Drinking Water Test Results Released

The EPA announced the results of drinking water quality tests for the first half of the year on the 21st of August. 1.81% of samples failed to meet standards; the counties and cities whose failure rates were above 1% were Kinmen County and Lienchiang County, and those whose failure rates were above 0.5% were Kaohsiung City, Kaohsiung County and Penghu County, all in high to low order. The items that failed most often were ammonia nitrogen, free available residual chlorine, pH, chlorides, and coliform bacteria. In addition, 132 of a total of 237 samples of non-tap water failed, for a failure rate of 55.7%. The items that failed most often for the non-tap water samples were coliform bacteria, ammonia nitrogen, turbidity and total bacteria count.

Water Pollution Permitting Procedures Simplified

In order to simplify water pollution permitting procedures, the EPA announced the revision of Article 21 of the *Water Pollution Control Act Enforcement Rules* on August 8. The new version stipulates that newly established enterprises may receive a permit without a substantive review if they enter the approved content of their EIA in their water pollution control measure plan.

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