

Environmental Policy Monthly



Taiwan R.O.C.

Volume IV, Issue 7 (Published Monthly)

July 2001

Environmental Protection Administration

GPN: 2008600068

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Draft Environmental Protection Basic Act Passes First Legislative Review

After a lengthy 13-year review process, the *Environmental Protection Basic Act*-the ROC's fundamental law concerning the environment-finally completed its first reading by the Legislative Yuan on March 30 of this year. Although not yet passed, the law's review symbolizes the great strides made by the country's environmental policy.

After a 13-year review process, the *Draft Environmental Protection Basic Act* (環境保護基本法草案) finally passed initial review at the third joint conference of the Legislative Yuan's judicial and health, environment, and public welfare committees on May 30. The third reading of the law cannot be completed before the current legislative term ends, but the EPA has made passage by the Yuan one of its major goals for the next term.

This draft contains five chapters and 39 articles. Key points include: declaration of the importance and precedence of environmental protection, establishment of an environmental protection consciousness among citizens, implementation of green production and consumption, a clear formulation of the government's authority and duty regarding environmental protection, strengthened environmental planning and conservation, establishment of an environmental damage prevention and remediation system, enshrinement of the principle that polluters and beneficiaries should pay, strengthening of assistance for the environmental protection industry, and designation of June 5th as Taiwan's Environment Day.

The following is an overview of key articles of the *Draft Environmental Protection Basic Act*:

Article 1 of the first chapter-General Principles-states "this law has been drafted in order to enhance environmental quality, improve citizens' health and welfare, husband natural resources, and pursue sustainable development." Apart from providing a comprehensive definition of the environment, Article 2 also defines sustainable development: "sustainable development refers to development that satisfies current needs without harming the ability to satisfy the needs of future generations." This language emphasizes that environmental protection is absolutely not to be based solely on the pragmatic considerations of this generation, but must rather reflect the needs of future generations.

Economic development and environmental protection have been among the most controversial topics of the last few years. In this regard, Article 3 of this draft act declares: "In light of the long-term welfare of the nation, economic, technological, and social development must uniformly take environmental protection into consideration", and specifically adds,

"But environmental protection must take precedence when economic, technological, or social development may cause severe negative environmental impact or damage." This spells out that environmental protection takes precedence over economic development when the danger of environmental impact exists.

As for environmental protection rights and duties, although environmental protection is the responsibility of all citizens-in both government and the private sector-without regard to identity or affiliation, Article 4 further stipulates that "polluters and destroyers of the environment must take responsibility for the environmental damage and hazards they create" and declares that the government is duty-bound to take action when "the aforementioned polluters or destroyers do not exist or cannot be identified with certainty."


The essence and principles of the *Draft Environmental Protection Basic Act* are generally laid out in articles one through four. For their part, articles five through 38 emphasize that citizens, industry, and all government units must work together to promote environmental protection, and that the goals of "environmental protection, being a priority, and sustainable development" must be realized starting with everyday life and consumer behavior. The government has recently strenuously advocated the establishment of a non-nuclear homeland, and this position was incorporated within Article 23 during the recent legislative review.

As far as implementation methods are concerned, apart from existing measures for monitoring and prohibiting pollution, Article 29 of this draft act requires that "the central government must establish various environmental funds in accordance with the law to bear responsibility for pollution disposal, environmental remediation, detection of pollution sources, and implementation of undertakings benefiting environmental development." The establishment of these funds will resolve the funding problems that persistently hamstrung past environmental protection efforts-much as a lack of rice would make it impossible for even a resourceful housewife to cook a good meal.

Finally, Article 38 proclaims: "To instill an environmental protection outlook and concern for environmental problems among citizens, industry, and all government units, June 5th is hereby declared Environment Day." On the same day as World Environment Day, this event will signify that Taiwan is implementing environmental protection in step with the world. Although some time is still needed before the third reading of this act is completed, it will cer-

tainly happen in the foreseeable future.

The ROC's existing environmental protection laws and regulations primarily govern marine pollution prevention, environmental impact assessment, air pollution prevention, water pollution prevention, waste disposal, noise pollution control, drinking water management, toxic chemical management, environmental agent management, national parks, water conservancy, forests, and regional planning. While

there are many environmental protection laws, they are typically administered by different authorities, and responsibility is widely dispersed. In contrast to the prevailing situation, the *Environmental Protection Basic Act* will offer a systematic, symbolic, and instructional tool for implementing environmental protection. Its passage by the Legislative Yuan will signify a new milestone in Taiwan's environmental protection policy. 

Guidelines for the Establishment of Industrial Parks Pass Policy EIA Review

Following the passage of its first EIA review of government policy in April, the EPA Environmental Impact Assessment Review Committee completed its second EIA of government policy-*Guidelines for the Establishment of Industrial Parks*-on May 31. These guidelines specifically stipulate that developers must do their utmost to reduce the negative impact of industrial parks on the environment.

The Environmental Impact Assessment Act (環境影響評估法) states, "environmental impact assessments (EIA) of government policies that are suspected of having the potential to negatively impact the environment will be conducted by the EPA." This means that, in addition to EIA being required for individual development projects, government policies are also subject to EIA. This act also clearly stipulates that the government must consider environmental protection issues when formulating government policy. Importantly, regarding the development of industrial parks, the act does not stop simply at regulating individual development projects, it is part of a national industrial park development policy. With these regulations in place, the EPA has already passed its second EIA of government policy-*Guidelines for the Establishment of Industrial Parks* (工業區設置方針). The first EIA of government policy, that governing the development of golf courses, was passed in April (see EPM Vol. 4, Issue 6).


Following intense debate between members of the Environmental Impact Assessment Review Committee concerning the formulation of these guidelines on March 19, the committee requested that the Ministry of Economic Affairs Industrial Development Bureau (IDB) provide supplemental information for further review. This requested information concerned the actual demand for industrial parks in Taiwan and land use and urban planning issues.

After supplying this new information, the IDB presented its Policy Assessment Report on the *Guidelines for the Establishment of Industrial Parks*. The EIA Committee, based on the resolutions of a preliminary review meeting of an EPA special taskforce, presented its proposals to the IDB at its 84th meeting on May 31. The committee sug-

gested that, in the process of developing industrial parks, the IDB should specifically explain the impact of this development on the overall environment and clearly state its strategy for the prevention and reduction of damage to the environment. It said that the IDB should also pursue environmental management and environmental monitoring in developing industrial parks.

The EIA Review Committee also made the following proposals:

1. The establishment of industrial parks should be avoided in environmentally sensitive areas or in areas in which development is restricted.
2. In the development of industrial parks, priority consideration should be granted to the special characteristics and capacity of the local environment.
3. A total quantity control (TQC) system for the volume of pollution should be implemented in the establishment of industrial parks. Also, a principle of handling all industrial park waste within industrial parks should be adopted.
4. The ecology and resource recycling should be taken into consideration in the planning of industrial parks. This includes the provision of greenbelts for biological organisms, the recycling and reuse of water and waste and the conservation and efficient use of energy.
5. The IDB should aggressively facilitate the use of already established industrial parks and idle industrial land so as to reduce the development of additional industrial parks and avoid damaging the environment.

The IDB said at the May 31st meeting that it accepted all of the opinions and suggestions of the EIA Committee and that it would revise its policies based on the resolutions of the committee. In response, chairperson of the committee EPA Administrator Dr. Lung-bin Hau, following a report by the IDB and consultation with committee members, approved the IDB's version of the *Guidelines for the Establishment of Industrial Parks*. This is the second EIA of government policy approved by the committee. 

EPA Draws Up Emergency Plan for Industrial Waste Disposal Sites

The EPA has formulated two plans aimed at setting up a system capable of handling all of Taiwan's industrial waste. These plans, the *Plan for the Emergency Establishment of Final Disposal Sites for Industrial Waste (including Municipal Solid Waste Incinerator Ash)* and 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)*, aim to find final resting places for industrial waste and encourage private enterprises to participate in the establishment of final disposal sites.

The problem of how to properly handle industrial waste captured the attention of the entire nation following the Kaoping River Incident, in which industrial solvent waste was dumped directly into the Kaoping River in July 2000. The EPA has striven to help private enterprises establish and operate waste handling and disposal enterprises. However, as competition in this sector is intense and fines for violating regulations are too light, we still hear reports of the illegal disposal of industrial waste from time to time.

Aiming to address this problem, the Executive Yuan approved the EPA's *National Industrial Waste Management Plan (全國事業廢棄物管制清理方案)* and established a General Industrial Waste Treatment Taskforce on January 17, 2001. Also, in order to facilitate the establishment of additional final disposal sites for general industrial waste within a short period of time, the EPA along with the Ministry of Economic Affairs (MOEA) and the MOEA-run Taiwan Sugar Corp. jointly formulated the *Plan for the Emergency Establishment of*

Final Disposal Sites for Industrial Waste (including Municipal Solid Waste Incinerator Ash) (事業廢棄物(含垃圾焚化灰渣)最終處置場緊急設置計畫). This plan calls for providing 10 hectares of land for immediate use by the end of April 2002. Further, it sets the goal of opening up over 60 hectares for the establishment of final disposal sites for general industrial waste by the end of December 2002. This will be achieved by setting up final disposal sites of 30 hectares or more in both the southern and central Taiwan areas.

The EPA has also drawn up its *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)* (鼓勵公營機構興建營運一般事業廢棄物(含垃圾焚化灰渣)最終處置場設置計畫). Under this plan, which is aimed at achieving the appropriate handling of municipal solid waste incinerator ash and general industrial waste, private enterprises are rewarded for constructing and operating final disposal sites. This plan primarily targets the 12 cities and counties that have already established large-scale garbage incinerators. With each of these 12 sites occupying an area of 30 hectares, they possess a combined landfill area of 360 hectares. This plan calls for completing the establishment of a landfill with a capacity for 3.58 million tons of municipal solid waste incinerator ash and a final disposal site with a capacity for 7.16 million tons of general industrial waste by the end of 2003.

Free Subscriptions to EPA e-News Offered Online

Those who have been keeping an eye on the EPA will surely have noticed that there is a new addition to the EPA website. The EPA is now offering an e-News Subscription service on its Environmental Exchanges web page. By subscribing, which simply requires your basic information and e-mail address, the latest news from the EPA will be sent directly to your e-mailbox at irregular intervals as soon as it is posted. This will allow you to keep up with the activities of environmental protection community without even having to surf the web. This is another example of the EPA simplifying things for the convenience of the people.

In the spirit of "Initiating Service," the EPA is proud to bring you its e-News Subscription service. This service, which the EPA added to its website in June, follows the addition of the EPA Forum and the Public Opinion BBS. Whether you are a scholar, professional or simply someone concerned about the environment, with a simple click and some basic personal information, the latest news from the EPA will automatically be delivered to your e-mailbox. And,

of course, this service is provided free of charge.

The EPA redesigned its website in February, for the first time using Flash technology to enhance the website's dynamic performance. And now as of June, the EPA has further enhanced its website by offering its e-News Subscription service. Subscribers will automatically receive deliveries to their e-mailboxes of the latest news from the EPA, including policy reports and announcements of activities and conferences.


The primary channel on the EPA website for exchanges with the general public is the Environmental Exchanges web page. On this page you can find links to the EPA Forum, the Public Opinion BBS, the PolCar Reporting website (for reporting high exhaust vehicles) and the Environmental Complaints Mailbox. The e-News Subscription service is the latest addition to this page.

The EPA says that it has added this service in response to requests from the public. Many people

have reported that they often do not hear about EPA news and activities until they are over and reported in newspapers and magazines. Another reason for offering this service is that the EPA is coordinating with the Executive Yuan's initiative for promoting the electronic exchange of official documents that began early this year. Under this initiative, the EPA has already established a delivery system for its internal documents. Now, through the hard work of its computer systems personnel, the EPA's simple on-line news announcements have been upgraded to this new self-delivering e-News service.

The EPA's two primary objectives in offering this e-News service are those of initiating service, that is, actively taking service to the public, and making policy announcements. The target audience of the e-

News is not limited to organizations, the media and scholars as in the past, but has been expanded to include the general public. This service will allow the EPA to immediately provide subscribers with complete and accurate information concerning EPA policy and environmental protection work, such as the fight against environmental crime.

What's more, in addition to delivering the e-News, the EPA also provides on its website such domestic and international environmental news sources as the English-language version of the EPA's Environmental Policy Monthly and the EPA's International Environmental News Weekly. If you have still not subscribed, all you need to do is visit the EPA website to sign up. You can find a link to the e-News subscription form at <http://www.epa.gov.tw/index5.html>. 

Waste Disposal Act Enforcement Rules Announced

The Waste Disposal Act Enforcement Rules, formally announced by the EPA on May 30, defines the scope of industrial waste and also specifies the duties of central and local authorities with regard to waste disposal management. As for the adjustment of the level of responsibility for waste treatment, county and city governments are required to complete and submit to the EPA refuse clearing and disposal work adjustment plans within one year of the enforcement rules' announcement.

Although the content of the *Waste Disposal Act* (廢棄物清理法) has been revised or supplemented several times since its enactment on July 26, 1974, its enforcement rules were set at the provincial (city) level, and it lacked a set of unified nationwide enforcement rules. After the act was revised to allow the EPA to formulate enforcement rules, the EPA formally announced the *Waste Disposal Act Enforcement Rules* (廢棄物清理法施行細則) on May 30.

The newly announced *Waste Disposal Act Enforcement Rules* contain 20 articles. Of these, Article 2 defines so-called industrial organizations as including agricultural/industrial/mining facilities, construction enterprises, medical organizations, waste clearing and disposal organizations, joint clearing and disposal organizations, laboratories belonging to schools, institutions, or organizations, and other entities specified by the EPA. In the future waste produced by these industries must be treated in accordance with industrial waste control regulations.


Because responsibility for refuse clearing and disposal has been raised from the town/township level to the county/city level, the enforcement rules specify that county and city governments must submit refuse clearing and disposal work adjustment plans to the EPA for future reference within one year of the enforcement rules' implementation.

With regard to the industrial waste disposal proposals called for in Article 13 of the *Waste Disposal Act*, this article also lays out detailed requirements concerning the content of these proposals, which must include the following items:

1. basic information concerning the industrial organization
2. the products' manufacturing or use process
3. industrial waste sources, composition, and quantity
4. industrial waste clearing and disposal methods and installations
5. disposal of industrial waste that has not yet been disposed of if the industrial organization should cease (suspend) operations or declare bankruptcy

Apart from the above five items, any industrial organizations engaging in the storage, disposal, or treatment of hazardous industrial waste must additionally include an emergency response plan in their proposal. The emergency response plan will help environmental protection authorities keep hazardous waste from spreading and perform necessary oversight of the industrial organization.

It should be noted that, as the central authority, the EPA has full authority to regulate the export, import, transit, transshipment, and re-utilization of hazardous industrial waste. The EPA shall also resolve or handle any waste clearing and disposal problems or disputes at or above the level of special municipality or county/city.

The announcement and implementation of these enforcement rules, stated the EPA, will unify Taiwan's domestic waste management system. In conjunction with the previous revisions of the *Waste Disposal Act*, the enforcement rules will increase the act's legitimacy and effectiveness. 

Feature Article

Industrial Park Wastewater Subject to Grading and Classification Controls

To thoroughly resolve the problem of industrial park wastewater discharge, the EPA will institute grading and classification management measures at 40 industrial parks with unified wastewater treatment facilities. Under the current EPA plan, there will initially be three grades, and those parks graded as poor will be listed as major producers subject to audit at any time. This measure will become a new index in future industrial park management efforts.

Instances of industrial park plant wastewater violating effluent standards have been very common recently, and in some cases this discharge has severely polluted downstream rivers and waterways. The EPA has therefore decided to institute an industrial park wastewater grading and classification system. Beginning this year, 40 unified wastewater treatment facilities at industrial parks will be graded and classified with regard to wastewater treatment capacity, treatment functioning, industrial wastewater hook ups, and illicit discharges of wastewater into regular sewage systems, etc.

According to an initial assessment by EPA officials, the at least 7,000 firms operating in Taiwan's 40 industrial parks discharge approximately 400,000 tons of wastewater daily. Without good wastewater discharge management, unified wastewater treatment facilities cannot operate effectively, and may cause secondary pollution and environmental damage.

The EPA has therefore decided to institute a new approach to the grading and classification of industrial park wastewater. Analysis and assessment of wastewater treatment facilities at 40 industrial parks will be performed, and an assessment report will be completed by the end of March 2002. EPA officials have nevertheless expressed that implementation of the new management measures will not have to wait until next year; in fact, implementation will take place as soon as preliminary reports are available. It is hoped that firms don't adopt a wait-and-see attitude, lest they become the regular target of EPA audits and injunctions.

In accordance with EPA implementation guidelines, wastewater treatment facilities will be graded as "good," "fair," and "poor" on the basis of their wastewater discharge characteristics and current wastewater management conditions. A facility's grade will determine the frequency of audits and the following control measures:


1. Audit control: Based on the results of the survey reports, audit work will be stepped up to address the persistent problems of individual industrial parks. When necessary, the EPA will

coordinate the implementation of full-scale control measures by relevant organizations; audits and control measures will focus on the items of differential analysis of wastewater treatment intake and output, chemical and power use per unit of treated wastewater, sludge output, wastewater hook ups, and illicit discharges of wastewater into regular sewage systems.

2. Monitoring and reporting controls: In accordance with the regulations of the Water Pollution Control Act, industrial park sewage systems must report monitoring data concerning the operation of wastewater treatment facilities and the quality of discharge water once every two months.

These two control measures provide for different audit frequencies and monitoring and reporting regimes for unified wastewater treatment facilities with different grades or classifications. Audit frequency may be reduced for industrial parks listed as "good" (grade 1), but audit frequency will be increased for industrial parks listed as "fair" (grade 2) or "poor" (grade 3), and monitoring report interval will be shortened as well. When necessary, special control measures may be instituted, audits performed at any time, and monitoring report items and frequency increased as needed to institute effective wastewater management. Industrial parks will also be classified according to the type of industry they focus on, such as steel or semiconductors, in the future. This classification will also be based on the type of water treatment facilities the parks possess, the method of treatment they use, the volume of effluence they produce and their management methods.

Increasing emphasis on environmental protection over the last few years has prompted the Industrial Development Bureau to require industrial parks under its control to actively adopt wastewater treatment measures, EPA officials note. Forty industrial parks have finished building or improving treatment facilities. It is thus seen as an opportune time for the EPA to institute grading and classification of treatment facilities. To facilitate management and achieve an economy of scale, the EPA hopes that every industrial park can perform unified wastewater treatment.

The EPA has also adopted a similar grading and classification scheme for industrial parks that lack unified wastewater treatment facilities, and is insuring legal compliance and good environmental quality by performing abnormality analysis and strengthening inspection work. 

Strike Inspections on Unlawful Dischargers of Industrial Wastewater

On June 9, the EPA conducted a day of surprise raids on factories suspected of illegally discharging wastewater in northern, central and southern Taiwan. Of the 28 factories investigated that day, 19 were found to have acted in violation of the Water Pollution Control Act and Waste Disposal Act. The EPA sent cases against 9 violators to prosecutors. The EPA will continue to investigate illegal activities in order to prove the government's determination to protect the environment.

Industrial park wastewater presents a serious environmental problem. The so-called "Red Sea Phenomenon" is a persistent problem in the ocean off the coast of Tayuan and Kwan-yin in northern Taiwan. The dyeing and dyestuff factories in this region are the primary sources of this "Red Sea." These factories regularly illegally discharge wastewater into the sea, causing coastal waters to be repeatedly transformed into a giant dyeing vat. This threatens the livelihoods and environment of both fishers and the general public.

The northern division of the Chief Inspectorate says that the dyeing and dyestuff factories in Kuan-Yin Industrial Park and Ta-Yuan Industrial Park, aiming to reduce wastewater handling expenses, often store their wastewater in storage tanks until weekends, holidays or nights when they then secretly discharge it, allowing it to eventually flow into the ocean. A dyeing factory that generates 600 tons of wastewater in a single day can avoid treatment expenses of NT\$ 20,000 by secretly dumping just one day's wastewater. Consequently, not only has the ocean in this area become the "Red Sea," the local residents have even taken to sarcastically dubbing the streams in the area "Bubble Red Tea Creek." From this, one can gather

how severe this illegal dumping is.

In central and southern Taiwan, the problem of factories illegally discharging wastewater is even more serious than it is in the north. On this day of sneak inspections, the EPA set its sights on the Ta Hsin Industrial Park in Changhwa County, through which the Chuoshui River flows, and the electroplating factory zone near the lower reaches of the Ah-Kong Tien River in southern Taiwan. A great number of busts were made in these areas. Seven enterprises in central Taiwan and eight in southern Taiwan were discovered to have acted in violation of the Water Pollution Control Act. At the scene, the EPA directed local environmental protection authorities to file charges against offenders in accordance with the law. During this nationwide anti-pollution drive, a total of 28 enterprises were investigated and 19 of these enterprises were discovered to be operating in violation of the *Water Pollution Control Act* and *Waste Disposal Act*. Charges were filed with the Kaohsiung district prosecutors office against 9 violators.

While this investigative action reaped considerable results, it also elucidates how pervasive illegal wastewater dumping is and how severe the damage it causes to streams and rivers is. In order to curb this dumping, the EPA intends to conduct a series of surprise raids of pollution sources at irregular intervals. The EPA warns that polluters should not think they will be lucky enough to escape the law. It says these enterprises should work together to fulfill their responsibility of protecting our environment.

EPA Conducts Raids Against Underground Filling Stations

The EPA, aiming to wipe out underground filling stations, conducted its "Drive Against White Oil" on the morning of June 8. Administrator Hau declared that day that this is merely the first wave of strikes. He added that the EPA would continue to clamp down on underground filling stations and aggressively search for the suppliers of illegal gasoline and diesel in order to protect air quality and the health of the people.

Administrator Hau personally directed EPA strike attacks against underground filling stations on June 8. These raids, codenamed "Drive Against White Oil" (white oil refers to illegal gasoline and diesel), demonstrate the EPA's determination to protect the environment and clamp down on illegal activities. In conducting these raids, Hau worked in coordination with prosecutors and personnel from Chinese Petroleum Corp. and supervised teams of EPA investigators and personnel from the Environmental Protection Police Force. Spreading out

throughout Taipei County and Taipei City, these teams raided four illegal filling stations, discovering 24,000 liters of illegal gasoline and diesel and three fuel storage tanks and one underground fuel storage tank with a combined capacity of 52,000 liters.

Administrator Hau stated that this is merely the first step and that the EPA will initiate a series of investigative actions in the coming future. He hopes that illegal operators do not take the resolve of the EPA lightly. Violators caught in this drive will be punished in accordance with the *Air Pollution Control Act*, under which violators are subject to a maximum fine of NT\$ 1 million. In addition, underground filling stations will also be prosecuted under the *Energy Management Act* for selling fuel products without a license.


Testing conducted by the EPA's National Institute of Environmental Analysis shows that most

so-called underground "gasoline" is not purely gasoline, but is made by mixing in large amounts of organic solvents, including toluene and xylene, which are harmful to human health. Not only does this impure fuel cause air pollution and threaten public health, the failure to control its octane levels effects driving stability by causing heavy engine vibration and directly shortens engine life.

With such low quality, how is it that we are unable to wipe out this underground gasoline? The primary reason is that it sells for NT\$ 14 per liter, while gasoline on the legal market is priced at NT\$ 20, resulting in an NT\$ 6 difference per liter. Many taxi drivers and auto rental and leasing companies, struggling to cut costs, have become the main customer base for this tainted fuel.

Most underground filling stations are located at repair shops and car washes. Some even operate 24-hours a day. Rough estimates indicate that over

100,000 kiloliters of illegal gasoline and diesel products are sold every year. This has a severe impact on air quality and also reduces government tax revenues. With this much illegal fuel being sold, the government losses NT\$ 750 million in national tax revenues and the EPA losses NT\$ 30 million in Air Pollution Control Fee revenues every year.

In addition to this large-scale investigative action, which is aimed at cutting off the supply of illegal gasoline and diesel, the EPA is also formulating new regulations aimed at the users of these illegal fuels. Entitled *Standards for the Composition and Properties of Automobile Gasoline and Diesel Fuels* (車用汽油成分及性能管制標準), these standards will impose fines ranging from NT\$ 5,000 to NT\$ 100,000 on the owners of motor vehicles that are discovered to be using fuel that is inappropriate for their particular type of vehicle. The EPA is planning to promulgate these new standards in the near future. 

Transparent Selection Process for EIA Review Committee Introduced

The announcement of the *Guidelines for the Selection of Specialists and Scholars as Members of the EPA EIA Review Committee* on June 19 marks the institution of a transparent process for selecting members of the 21-member Environmental Impact Assessment Review Committee. In addition to the seven exofficio members from Executive Yuan bodies, 14 specialists and scholars also sit on the committee. In a change from the old process in which the EPA administrator appointed all committee members, the new guidelines require that the 14 members from outside the government be selected following recommendations from the public. These new guidelines make the selection process more transparent and open.

The organizational regulations of the EPA's Environmental Impact Assessment Review Committee were implemented in 1995. With term limits for committee members set at two years, the committee's third term since these regulations were enacted will end at the end of July. The 21 members of this committee guard an important line of defence in the effort to protect the environment and the committee's resolutions not only directly affect environmental policy, they also influence other government policies. In particular, they have a profound impact on economic policy. Therefore, the selection of new members always attracts considerable public scrutiny.

Article Three of the *Environmental Impact Assessment Act* (環境影響評估法) stipulates that EIA reports must be reviewed by the Environmental Impact Assessment Review Committee. This effectively places the right to decide whether an EIA report is passed or not in the hands of the committee.

The EPA administrator and deputy administrator hold the committee's chairperson and deputy chairperson seats respectively. In addition to these

two positions there are five other exofficio seats on the committee. These seats are occupied respectively by representatives from the Council of Economic Planning and Development, the Research, Development and Evaluation Commission, the Public Construction Commission, the Council of Agriculture and the National Science Council. Concerning the other 14 positions on the committee, Article Four of the organizational regulations introduced in 1995 dictates that the EPA administrator select specialists and scholars with professional or academic environmental impact assessment experience for appointment to these positions and that, after these members complete their 2-year terms, the EPA may choose to reappoint them.

The EPA has decided to revise the selection process for committee members in order to create a more fair and transparent process. Instead of placing the responsibility for selecting these 14 members solely on the EPA administrator, the EPA has chosen to allow the public to recommend qualified specialists and scholars for these positions. The EPA will be accepting recommendations for committee members to serve during the coming term up until July 20. These recommendations will be accepted from professional associations, government agencies, colleges and universities, academic and research organizations and environmental and community groups.

This new selection process is detailed in the *EPA's Guidelines for the Selection of Specialists and Scholars as Members of the EPA EIA Review Committee* (行政院環境保護署環境影響評估審查委員會專家學者委員遴選要點) .

Following these guidelines, the EPA has set up a selection committee with EPA Deputy Administrator Juu-En Chang as committee convener. Five members of this selection committee are specialists and scholars. Four are representatives from the Council of Agriculture, the Ministry of the Interior, the Ministry of Economic Affairs and the Ministry of Transportation and Communications and the other member is the general director of the EPA Comprehensive Planning Bureau.

Specialists and scholars recommended for the committee must meet one of these prerequisites:

1. five years or more experience as a technician in an environmental assessment related field
2. three years or more experience in a senior level environmental assessment related position at a government agency
3. a professorship at a vocational technical school or university
4. three years or more experience as the leader of an environmental or community organization
5. two years or more experience as a member

Construction Site Runoff Water Placed Under Regulation

The EPA will begin introducing a series of regulations aimed at enterprises that are frequently the source of runoff water pollution in July. The first stage of these regulations, which targets construction companies and sand and gravel companies, will require that enterprises submit a *Runoff Water Pollution Reduction Plan* for approval before commencing with any project. Enterprises not complying with these regulations will be fined.

Rain often washes large volumes of dirt, nutrient salts and oils from construction sites and sand and gravel storage piles into rivers and streams. This causes pollution and sometimes even leads to the blockage of streams, damaging the living environment of the public. Therefore, in the spirit of pollution prevention and management, the EPA is instituting regulations aimed at controlling runoff pollution from construction sites and sand and gravel storage sites.


Prior to these new regulations, the EPA had previously formulated the *Best Management Practices Guidelines for Non-Point Source Pollution from Construction Activities* (施工活動非點源最佳管理作業規範). These guidelines were aimed at encouraging enterprises to take measures necessary for reducing the volume of runoff and pollution caused by rainfall on their sites. It was expected that operators would follow these regulations in adopting the appropriate pollution prevention measures. However, subsequent to the promotion of these guidelines the EPA decided to include them in laws as compulsory regulations.

The new regulations primarily target construction sites that have passed environmental impact

of a governmental EIA review committee

6. experience as a researcher in an environmental assessment related field at an academic or research institute
7. special professional experience that meets the approval of the selection committee

The various specializations of those selected to sit on the committee should comprise the areas of natural environment, living environment and social environment. In making its selections, the committee will strive to achieve a balance between these different areas of specialization.

As convener of the selection committee, Deputy Administrator Juu-En Chang said that the committee would complete the processing of the public recommendations within three weeks after the announcement of the guidelines. He stated that the selection committee would first choose 28 recommended candidates and then select the final 14 specialists and scholars to sit on the Environmental Impact Assessment Review Committee before the term of the third committee concludes. 

assessment (EIA) reviews and existing sand and gravel storage sites. Estimates put the number of such sites around the country at approximately 1,000. The EPA announced and began the promotion of these regulations at the end of June. Each of the targeted operators is expected to submit a *Runoff Water Pollution Reduction Plan* (逕流廢水污染削減計畫) within three months after the announcement of the regulations.

Local environmental protection agencies around Taiwan will step up inspections in order to ensure that operators act in accordance with their approved plans. Enterprises that do not comply with the obligations of their plans or whose plans are determined to be insufficient for protecting bodies of water will be ordered to improve their operations or plans. Under Article 7 and Article 38 of the Water Pollution Control Act, those operators who fail to make required improvements and subsequently pollute bodies of water will be subject to fines of NT\$ 60,000 to NT\$ 600,000. Massive polluters face penalties as severe as the shutdown of their polluting operations or even of their entire business.

The EPA's Water Quality Protection Bureau stresses that these new runoff water pollution regulations are merely a beginning and that the types of operations governed by these regulations will be expanded in the future. All forms of pollution from construction operations will gradually come under regulation in order to ensure that Taiwan's streams and rivers are protected forever from pollution.

Control Framework for Marine Pollution Submitted to Executive Yuan

Besides laying out plans for future marine monitoring systems, the Draft Marine Pollution Control Act Enforcement Rules recently completed by the EPA requires that likely marine polluters submit emergency response plans for preventing and cleaning up pollution. Polluters will also be required to take action when pollution occurs, and must also submit relevant data.

Occurring in the wake of the promulgation of the *Marine Pollution Control Act* (海洋污染防治法) on November 1st of last year, the Amorgos oil spill drove home awareness of the importance of preventing marine pollution. Intending to better realize the legislative spirit of the original law, the EPA recently completed the formulation of the *Draft Marine Pollution Control Act Enforcement Rules* (海洋污染防治法施行細則草案) and sent them to the Executive Yuan for approval on May 24.

The draft enforcement rules submitted by the EPA control the future use of toxic chemicals in marine waters, including cyanides, potassium cyanate, carbonic acid, or other toxins, or other materials that may cause pollution, kill or stun aquatic life, or reduce or destroy productivity or reproductive ability when spread in the water. Violators may be fined NT\$200,000 to NT\$1 million.

Apart from the establishment of national marine monitoring stations by the EPA, city and county governments must also set up monitoring stations in accordance with marine environmental classifications in the waters under their administration. In addition, the environmental protection authorities must also publicly announce the previous years' marine monitoring data before April 15th of each year. Vandalism of and interference with government monitoring stations shall be prohibited.

To prevent the occurrence of marine pollution, any enterprises wishing to engage in the transport of oil, marine construction, open ocean dumping, or open

EIA Required for Construction of Wind Power Turbines

With the use of wind power gradually picking up in Taiwan, the EPA resolved that the construction of wind turbines would fall under the regulations of the EIA Act at an EIA discussion meeting on June 4. These new EIA regulations for wind power were announced June 8.

With its eye on the wind power potential in Hsinchu City, the German wind power company Infra Vest in February expressed its interest in investing NT\$ 4 billion to develop a 100,000-kilowatt wind farm in the Nanliao area. This would be Taiwan's largest wind farm. According to the German company's preliminary plan, each of its wind turbines would require a 20-square meter plot with

ocean incineration must submit emergency response plans for the prevention and cleanup of marine pollution. The draft enforcement rules specify that the content of these response plans must include the items of warnings, notification, troubleshooting, pollution disposal, cessation of operation, response organization, and incident record reports.

The draft enforcement rules also stipulate that persons engaging in polluting behavior must take appropriate action when pollution occurs or is suspected, including the following measures:

1. Provide information on relevant installations or vessels.
2. Send personnel familiar with the relevant installations to take action, and participate in government-organized emergency response teams.
3. Coordinate and dispatch response teams and equipment.
4. Block the spread of, clean up, recycle, and dispose of oil or pollutants.
5. Perform other measures ordered by the government.

With regard to shipboard pollution prevention equipment and determination of marine pollution caused by vessels, the draft enforcement rules state that these matters shall be handled on the basis of the *Vessel Act* (船舶法), the *Commercial Port Act* (商港法), the relevant regulations of the competent navigation authorities, or international conventions or precedents.

As for use of the open ocean for petroleum extraction, transport of oil and chemical substances, or the discharge of wastewater (sewage), the draft enforcement rules require that businesses engaging in these activities must submit their monitoring records to environmental protection units on a quarterly basis. Any businesses that fail to take or report records may be fined NT\$200,000 to NT\$1 million.

300 meters between each turbine. Under these space requirements, around 80 turbines could be constructed along the Nanliao coastline.

While the Hsinchu City government has expressed its optimism about the project, ecological conservation groups, including the Wild Bird Society of Hsinchu, are suspicious about how the wind farm might affect migratory birds which pass through the area. The society says that the coastal areas of Hsinchu City are an important area for migratory birds in East Asia. This area attracts birds as they pass through Taiwan each spring and fall and is also the winter home for many migratory birds. The num-

ber of birds seen in this area in just one evening can reach 100,000. The society contends that the construction of a wind farm in this area could have a severe effect on the area's ecology.


In response to these concerns, specialists, scholars and government official discussed the potential negative impact of wind turbines on the ecology at an environmental impact assessment meeting on June 4. The EPA noted that, compared to electricity generated from fossil fuels or nuclear energy, electricity generated by wind power not only costs less, but is more safely generated, and it simply requires that there be wind. However, the EPA also pointed out that the construction of wind turbines must be carefully evaluated because they can also negatively affect the environment. This impact includes damage to the ecology (such as interfering with wild bird habitats), noise and electromagnetic interference. It also involves issues such as the beauty of the landscape and land usage.

Taiwan's Industrial Technology Research Institute reports that the use of wind power globally has been gradually growing. The volume of electricity generated by the wind has grown by 30-40% worldwide over the last three to four years. Total global output from wind power reached 16.5 million kilowatts by the end of 2000. This is equivalent to the output of sixteen nuclear power plants. The major achievements in Taiwan's efforts to develop wind power include the development of technology for 150-kilowatt and under wind turbines, the construction of a pilot 200-kilowatt wind power system on the Chimei Island of the Penghu Archipelago and

planning for the construction of a wind farm on the main island of Penghu. In its first stage, this wind farm will use four 600-kilowatt wind turbines to generate 2400 kilowatts of power. Other important achievements include the compilation of a handbook on wind forces around Taiwan and a manual on wind turbine research and manufacturing technology.

Despite the potential for wind turbines to impact the environment, not even all of the world's advanced nations have formulated comprehensive environmental impact assessment systems for wind power. Most countries simply require that these systems comply with the standards laid out in various existing laws, such as noise prevention laws. However, the EPA believes that, while wind power accounts for an extremely minor part of Taiwan's energy policy, the construction of wind turbines can still significantly influence the environment. It has therefore decided to require environmental impact assessments for the construction of wind turbines. The EPA announced these new requirements under Article 154 of the Administrative Procedures Act on June 8.

The EPA now requires that environmental impact assessments be conducted for wind turbines when they are to be constructed in the following locations:

1. national parks
2. wildlife conservation areas or important wildlife habitats
3. urban areas (for wind turbines with an output of 25,000 kilowatts or more)
4. non-urban areas (for wind turbines with an output of 50,000 kilowatts or more) 

News Briefs

EPA Administrator Hau Pedals to Promote Environmental Protection

Administrator Dr. Lung-Bin Hau attended the "Fun Bike Excursion" held by the Taipei Bureau of Environmental Protection on June 3 to celebrate World Environment Day and promote "active environmental protection" activities. Administrator Hau declared that emissions from motor vehicles and industry are the worst causes of air pollution, and the EPA therefore plans to make the promotion of bike riding one of its key administrative goals in the future. Specific measures will include funding the establishment of bike paths by local governments. Creating more room in which to ride bikes will help citizens lead environmentally-friendly lifestyles.

Online Essay Contest Celebrates World Environment Day

Celebrating World Environment Day on June 5, the EPA held an online essay contest for the first time. This activity, which reflects the UN Environment Program's World Environment Day theme of "Connect with World Wide Web of Life," uses the Internet to

publicize the environmental protection ideal. Administrator Dr. Lung-Bin Hau personally awarded prizes to the winners in each section. In his speech, Dr. Hau declared to the winners that a war to protect the environment will be launched in order clear away the stones that are hurting the environment (law-breaking businesses).

Dioxin Survey of River Bottom Sludge Published

On the afternoon on May 29, the EPA issued a report on dioxin concentrations in the bottom sludge of the midstream and downstream sections of 11 major rivers and waterways throughout Taiwan. The highest concentration-6.47 picograms-was discovered in the Tamsui River, while the lowest concentration-0.5 picograms-was found in the Kaoping River. The EPA has been regularly monitoring dioxin concentrations in Taiwan's major rivers and waterways since 1997; surveys over the last few years have discovered that while traces of dioxin are widespread in rivers, concentrations are lower than in many of the world's leading industrial nations.

News Briefs**Confirming Scrap Rubber and Kitchen Waste Reuse Methods**

The EPA announced in May that it has revised and expanded some items in General Industrial Waste Reuse Classification and Management Methods (一般事業廢棄物再利用類別及管理方式) to confirm reuse management methods for scrap rubber and kitchen waste. The changes list restaurants, industrial organizations, public dining rooms, institutions, and organizations as the main sources of reusable kitchen waste, and convenience stores and supermarkets as sources of expired foodstuffs with outer packaging removed. Scrap rubber is mainly generated by industrial organizations or collected by waste disposal organizations. While it might appear to be nothing more than junk, scrap rubber actually has a very broad range of applications. It can be used in auxiliary fuels, building materials, asphalt concrete, rubber products, and oil refining.

Formation of Basel Expert Committee

Marking the first time the EPA has established a standing committee in connection with an international environmental protection convention, an expert committee on the Basel Convention was officially formed on June 5 and held its first meeting. The committee's work plan for the next four years (2001~2005) and the roles and tasks of the committee members were confirmed at the meeting.

EPA Provides Full Oversight in Chinmien Creek Pollution Incident

Chinmien Creek suffered pollution on May 27 after unknown chemical substances were dumped in the creek. Due to the pollution concerns of local residents, the EPA took charge and provided full oversight. The EPA's National Institute of Environmental Analysis made several trips to the scene to take samples and test water quality, and the results showed

that the local source of drinking water had not been contaminated. The EPA expressed that it would step up its efforts to find and catch unlawful businesses guilty of environmental destruction, and urged the public to provide tips.

Dioxin Control Efforts Target the Steel Industry

At a dioxin control conference on June 9, the EPA's Bureau of Air Quality Protection and Noise Control emphasized that it would perform a dioxin emission survey of waste gas from specific industrial processes in 2001, and had made the steel industry a key target. The EPA will perform survey and monitoring work, draft dioxin emission control standards for the steel industry's electric arc furnaces, and strengthen checking work after the new standards take effect, gradually reducing hazardous dioxin emissions.

Air Pollution Permit Regulations Eased

The EPA held a public hearing on the revised draft of the *Regulations Governing the Permitting for the Installation, Modification, and Operation of Stationary Pollution Sources* (固定污染源設置變更及操作許可辦法) on May 10th. The current revision is chiefly a response to the enactment of the Administrative Procedures Act on January 1, 2001, and consists of the revision or addition of regulations governing procedures for changes, expansion, or termination, etc. Regulations governing modifications have been eased. In addition, it is specified that operating conditions for equipment during initial test runs and routine production testing should attain at least 90% of the maximum allowed output or fuel consumption. Streamlined application procedures have been added for operators who must continuously apply for changes or modifications due to rapid changes in product type or production capacity. It is hoped that businesses applying for licenses in the future will find procedures to be simpler and more flexible.

Environmental Policy Monthly, Taiwan, R.O.C.**Publisher**

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Editorial and translation support provided by:

Hui-kuo Consulting, Ltd., Productivity Asia, Ltd.

The EPM has been published monthly since July 1997. The current issue was published in July 2001. The EPM is available in electronic form free of charge on the EPA website (www.epa.gov.tw). For inquiries or subscriptions to the printed version, please contact:

Environmental Policy Monthly**Environmental Protection Administration**

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中華郵政北台字第6 1 2 8 號執照登記為雜誌交寄