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## *A Word from the Office of Science and Technology Advisors: International Environmental Cooperation and Exchange*

As societies have economically developed, the impact of environmental pollution has expanded beyond the scope of individual lives and evolved into an issue of regional and even global concern. In response, the Environmental Protection Administration has been actively participating at an international level to help overcome the environmental problems faced by the entire global community.

Current major areas of international concern include issues as varied as depletion of the ozone layer, the greenhouse effect, transboundary movement of hazardous waste, and the protection of endangered plant and animal species. Because, at a domestic level, these issues spread across different government jurisdictions, no single administrative agency can take responsibility for all of these issues. In 1992, Taiwan responded by establishing an inter-ministerial organization to address international environmental issues.

As these issues have become progressively more important internationally, this inter-ministerial organization has risen in status. Addressing current international environmental treaties and protocols has now become one of the major responsibilities of the Executive Yuan National Council for Sustainable Development (NCSD). Chairman of the NCSD is Executive Yuan Minister of State, Ta-Chou Huang, Vice

Chairman is EPA Administrator, Hsung-Hsiung Tsai, and Executive Secretary is EPA Vice Administrator, Yi-Hsiung Wu. The Position of Vice Executive Secretary is held by EPA Office of Science and Technology Advisors Office (OSTA) Director General, Chea-Yuan Young, and OSTA serves as the NCSO's Secretariat. The NCSO is responsible for confirming the roles and work scope for relevant departments, regularly calling meetings, and coordinating the resources of domestic agencies related to sustainable development activities.

Internationally, Taiwan actively supports and complies with major environmental conventions and protocols. Taiwan provides basic environmental information when required by relevant protocols. For example, the Montreal Protocol requires each signatory country to provide data on the types and consumption of ozone-depleting substances—data that Taiwan has provided on a yearly basis. For the UN Framework Convention on Climate Change, the EPA is actively working with other relevant agencies to draft a “National Communication” as required by the Convention. And, according to the contents of the Basel Convention, the EPA has already amended regulations concerning the import and export and hazardous waste.

As Taiwan moves into the ranks of developed countries, it can study the methods other developed countries used to overcome environmental problems and thereby draft appropriate environmental measures. The EPA strongly encourages cooperation and exchange with other developed countries on environmental protection matters. In June, 1993, Taiwan signed an environmental technology cooperation agreement with the United States, and in fiscal year 1998, implemented fifteen related cooperation projects. In July, 1996, Taiwan and Canada signed an environmental cooperation memorandum of understanding, and in fiscal year 1998, Taiwan implemented three related cooperation projects. Taiwan has also signed agreements with both Sweden and Denmark in 1994 and 1995, respectively. Taiwan also works closely with several other countries such as Singapore, Japan, the Netherlands, Britain, France, Germany, and Australia. Cooperation with these countries includes mutual sponsorship of academic seminars as well as formal visits and information exchange.

Another step the EPA has taken in the area of international cooperation has been to enhance regulatory transparency and help the foreign business and international communities understand Taiwan's environmental laws and policies. In addition to translating environmental laws into English, the EPA has been using its website and this publication to report on the most recent status of environmental policies and regulations. It is the role of the Office of Science and Technology Advisors to be the EPA's window for external communications. Foreign organizations and companies are welcome to use this channel to offer advice and suggestions to the EPA.

### *Taiwan Air Quality Gradually Improving*

Through the joint efforts of environmental protection organizations at all levels of government, air quality in Taiwan has significantly improved in recent years. The number of days in 1997 with air quality ranked as “unhealthy” (Pollution Standard Index [PSI] greater than 100) was reduced to 5.23% of total days. This was a clear improvement over the 1996 percentage of 6.12%. At monitoring stations in areas where large populations are exposed to ambient air quality, the percentage of “unhealthy” days went from 6.57% in 1996 to 5.47% in 1997. This surpasses the 1997 goal of achieving a percentage of “unhealthy” days below 6%.

Analysis of other monitoring data further indicates that air quality overall is clearly improving. The percentage of days with a PSI “good” rating increased by 0.2% over the 1996 rate. The percentage of “unhealthy” days in most air quality protection zones and in all counties and cities has been undergoing a clear downward trend. Of special note is the Kao-Ping Air Quality Protection Zone (in the Kaohsiung-Pingtung area) which has undergone a significant decrease in the percentage of “unhealthy” days, from 17.5% to 14% (a decrease of 20%).

The average concentrations of sulfur dioxide (SO<sub>2</sub>) and particulate matter have also been decreasing year to year. Of these, SO<sub>2</sub> has decreased 6.8% over 1996 levels (and has dropped by 27% over the past four years). Particulate matter concentrations fell 1.7% in 1996 (and have dropped 13.6% in the past four years). Lead concentrations have seen an even greater reduction—19% over the past four years. Carbon monoxide levels are also undergoing a downward trend.

## ***Resource Recycling and Reuse Act Draft Completed***

The EPA has once again modified a draft of the *Resource Recycling and Reuse Act* and will soon submit it to the Executive Yuan for review.

The goal of enacting this draft is to further both environmental protection and economic development through implementing sustainable resource use, waste reduction, and waste recycling and reuse. Policy objectives will be achieved through both regulatory control and government assistance.

In setting regulatory controls, several strict requirements will be enacted.

Manufacturers will be required to reduce resource use throughout the product lifecycle, reduce use or generation of toxic substances, reduce waste, and increase use of recycled materials. Manufacturers will also be required to record for review and inspection their use of virgin resources and recycled resources. Controls and requirements will be placed on the import and export of recycled resources. Manufacturers of specially designated materials or containers will be required to pay collection fees (as stipulated in Article 10.1 of the *Waste Disposal Act*). The use of designated containers made of certain materials or of certain specifications and the use of designated packaging will also be tightly regulated. Companies violating these controls will be fined, or in severe cases, will be forced to suspend operations or even shut down business entirely. Violators of Article 10.1 of the *Waste Disposal Act* will be penalized according to provisions within the Act.

In the area of government assistance, the draft requires the EPA to establish an eco-labeling program and to cooperate with other relevant central government authorities in promoting the purchase of products which bear an eco-label (called the “Green Mark” in Taiwan). Also, government agencies will be required to place priority on the purchase of products with the Green Mark. Furthermore, the government shall assist with the adoption of waste recycling and reuse technology, and set-up special resource recycling areas. Zoning for waste recycling and reuse areas will be integrated into the planning of industrial parks. For companies in the business of resource recycling or reuse, the government should provide incentives for the acquisition of land intended for recycling activities, and for investment in, and the technological development of, such activities. Funds that environmental protection agencies at all governmental levels earn through implementing recycling activities should be earmarked to support only recycling and reuse activities.

## *Waste Disposal Act Amendments Readied*

Several cases regarding the illegal disposal of industrial waste have recently come to light in Taiwan. Because the currently enacted *Waste Disposal Act* does not provide sufficient deterrent to illegal waste disposal, the EPA has drafted amendments to the act as a means to strengthen regulatory control.

Current industrial waste recycling and reuse provisions are contained within the *Criteria for the Storage, Collection, and Treatment of Industrial Waste*. In order to establish the legal basis for the recycling and reuse of industrial waste, this round of amendments legally defines the activities of “recycling and reuse,” and requires associated methods and facilities to comply with relevant EPA regulations. Regulations will be set in cooperation between the EPA and the competent authority with jurisdiction over target companies.

In support of the Basel Convention, the draft also requires that the import, export, transboundary shipment, transfer, and reuse of hazardous industrial waste be governed by regulations set by the EPA. The draft requires that these activities receive approval from the EPA.

To address the difficulties of acquiring land for waste treatment purposes, the draft will mirror Article 23 of the Ministry of Economic Affairs’ *Statute for Industrial Upgrading*. It will require the EPA to work with the authority governing general development planning and zoning activities (i.e. the Ministry of the Interior [MOI]) to draft a policy for specially designated industrial waste treatment areas. Environmental protection agencies and industry representatives will be required to select land according to the stipulations of this policy. They will also be required to draft feasibility reports, and receive permission from the MOI. Following approval by the Executive Yuan, land area will then be set apart as dedicated industrial waste treatment zones.

Because transport companies that are unofficially in the business of clearing industrial waste avoid the *Regulations Governing Public/Private Waste Clearance and Treatment Organizations*, the draft requires any organizations engaged in the storage, clearance, and/or treatment of waste establish a “Public/Private Waste Treatment and Clearance Organization.” After obtaining permission or approval from the competent authority, these organizations may begin business. Violators of these provisions shall be fined between NT\$60,000 and NT\$150,000 and may be forced to suspend operations. General waste and general industrial waste permits will be granted by local competent authorities. Permits for the storage, clearance, and treatment of hazardous industrial waste, however, will only be granted by the EPA.

The draft amendments set stricter penalties for companies that violate regulations. Any organization that causes a fatality through the improper disposal of waste will receive a punishment of up to seven years imprisonment. Improper waste disposal that results in serious injury will be punished by up to five years imprisonment. Individuals who improperly dump hazardous industrial waste will receive a prison sentence of between three months and one year. (are these sentences levied against individuals? If so, whom in the organization?) In addition to imprisonment, violators may also be required to pay a fine of between NT\$60,000 and NT\$600,000. Individuals who illegally dump general waste or non-hazardous industrial waste shall receive a sentence of up to one year imprisonment and may be required to pay a fine of between NT\$30,000 and NT\$300,000. Furthermore, if violators do not have a “Public/Private Waste Clearance

and Treatment Permit” or are “underground haulers,” the relevant sentences or fines will be doubled. In addition, violators will be required to handle cleanup and treatment of the pollution that resulted from their illegal activity.

## ***Draft of Environmental Protection Fundamental Act Nears Completion***

In October 1996, a draft of the *Environmental Protection Basic Law* was withdrawn from the Legislative Yuan. Recently, however, the EPA redrafted the Law and sought suggestions from members of the Environmental Quality Advisory Committee.

The EPA indicated that the *Environmental Protection Fundamental Act* is designed to provide a framework for environmental protection activities in Taiwan. Within the Act, the definition of “environment” covers the natural and man-made factors that affect human existence and development, including air, water, sea, soil, minerals, forests, wildlife, natural relics, cultural relics, natural ecosystems, etc. The legislative goal of this law is to promote public health, raise the quality of life, protect environmental resources, and maintain a sustainable resource base.

Amendments to the R.O.C. Constitution that put equal weight on environmental protection and economic development have been included in the draft of the Act. When economic development has a large adverse effect on the environment, the Act requires that priority consideration be given to the environment. The Act further defines environmental protection as the shared responsibility of the public, businesses, and all levels of government, and it states that the principles of resource conservation and pollution prevention should be adopted by both manufacturers and consumers.

As for the rights and responsibilities of government, the central government should set environmental laws and regulations as well as develop and promote plans for national environmental protection. When setting local level regulations, local government agencies are suggested to follow the regulations and national environmental protection plans established by the central government. The central government has the responsibility to establish, in phases, environmental quality and pollution control standards and should do so according to public needs and technological capabilities. In response to the needs of their constituency, local governments can set stricter standards and report to the central government for approval. All levels of government should promote environmental education and assist the development of environmental technology. Courts can designate special hearing chambers or personnel to handle environmental dispute cases.

In terms of systems, policies, and measures, all levels of government should perform the following activities:

1. Set up impartial consultative committees to promote environmental protection activities.
2. Establish agencies dedicated to the handling of environmental protection affairs.
3. Establish public nuisance dispute settlement and relief systems.
4. Establish a system that requires polluters to pay for pollution control and environmental restoration.
5. Collect fees from the beneficiaries of public environmental facilities.

6. Provide incentives to or assist with the development of environmental businesses and direct the privatization of state-owned environmental businesses.
7. Establish environmental quality monitoring networks and regularly publicize monitoring results.
8. Adopt measures to achieve environmental quality standards and pollution control standards; cross-jurisdictional cases should be resolved between local government agencies, or if necessary, through central government coordination; international environmental protection norms should also be considered.
9. Establish systems for performing environmental impact assessments.
10. Establish systems for permitting, voluntary reporting, and auditing.
11. Set criteria for specialized environmental personnel; arrange environmental personnel education and training.
12. Promote agriculture, fishing, forestry, and livestock-raising practices that do not heavily impact the environment.
13. Provide incentives for engaging in environmental protection activities, developing recycling technology, developing low pollution and energy-saving technology or equipment, manufacturing or installing pollution control equipment, relocating operations for environmental protection reasons, and using land or other resources for environmental protection purposes.
14. Develop a national geographic information system.
15. Include environmental protection in land use planning.
16. When planning land use, primary consideration should be given to allocation of land for environmental facilities; government assistance in this regard should also be provided.
17. Ensure that those who violate pollution control standards are penalized.
18. Regularly review the status of implementing established environmental protection plans.
19. Delineate zones in accordance with environmental and practical needs, and set other measures and limitations on human activity where required within the zones.
20. Adopt preventative measures to protect non-renewable resources; for overused or overextended resources, adopt improvement or prevention measures.
21. Expedite environmental protection research and development.

The EPA will hold a number of public hearings to collect suggestions from all sectors on the draft of the *Environmental Protection Fundamental Act*.

## ***NCSD Passes National Environmental Protection Plan***

The Executive Yuan National Council for Sustainable Development (NCSD) passed the "National Environmental Protection Plan" (hereinafter "the Plan") on February 19, 1998. This step firmly establishes environmental quality objectives to be achieved by 2011 (100 years since the founding of the R.O.C.) and sets the strategy for achieving these objectives.

The EPA indicated that the Plan provides the framework for environmental protection planning in Taiwan. The Plan defines the principles for guiding research on the status of Taiwan's environment, analyzing environmental loading, setting improvement targets, and delineating the stages of environmental improvement strategy. The plan sets a schedule for achieving goals over the short-term (2001), mid-term (2006), and long-term (2011) (see table).

The plan will promote an environmental protection strategy through regulatory controls, economic incentives, and social programs. Regulatory controls will include environmental quality standards, emissions standards, pollution permitting requirements, regulatory compliance audits, and penalties for illegal pollution. Economic incentives will include fees (taxes), deposits, tradable pollution permits and quotas, financial incentives, business obligations, eco-labels, public investment, etc. Social programs include providing information, communication and monitoring opportunities, and furthering environmental education.

The EPA indicated that the National Environmental Protection Plan requires the Executive Yuan to oversee and evaluate implementation. A progress report will be included in an annual Environmental White Paper and posted on the EPA's website.

### Environmental Quality Targets

Type	Indicator	Value			
		1996	2001	2006	2011
Air	Percentage of days with PSI>100	6.57	2	<2	<2
Noise	Percentage of noise value that exceeds environmental standards	28	<20	<15	<10
Water Quality	Ratio of river length classified as unpolluted (RPI<2)	62.4	>65	>68	>70
Environmental Sanitation	Density of Dengue Fever bearing mosquitoes over Level 2 (using the Buex Index) (%)	52	<40	<30	<25

### Pollution Reduction Targets

Type	Indicator	Value			
		1996	2001	2006	2011
Air	Aggregate reduction amount (10 kilotons)	234.5	486.6	681.1	831.1
Water Quality	BOD total reduction (tons per day)	2,336	2,339	2,475	2,568
Solid Waste	Amount of resources recycled (10 kilotons per year)	21	75	106	99
Toxic Substances	Rate of reduction in release amounts	0	10	30	50
Environmental Sanitation	House-rat extermination rate	70	>75	>75	>80

## *Environmental Services Sector to be APEC Target for Liberalization*

Early voluntary liberalization was one of the most actively promoted APEC policies in 1997. At last year's APEC annual ministerial meeting, each member economy selected nine sectors for the first stage of liberalization. Of these nine sectors, the environmental goods and services sector received the most support from the member economies. Concrete promotion measures included trade liberalization (removal of tariffs and non-tariff barriers) and economic and technical cooperation.

Categories within the Environmental Goods and Services Sector:

<p><u>Categories of Environmental Goods</u></p> <ul style="list-style-type: none"><li>• Air pollution control</li><li>• Wastewater treatment</li><li>• Solid/Hazardous waste management</li><li>• Remediation/Clean-up of soil and water</li><li>• Noise/Vibration abatement</li><li>• Monitoring, analysis, and assessment</li><li>• Potable water treatment</li><li>• Other recycling systems</li><li>• Renewable energy plants</li><li>• Heat/Energy management</li></ul>
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<p><u>Services</u></p> <ul style="list-style-type: none"><li>• Sewage</li><li>• Refuse disposal</li><li>• Sanitation and similar services</li><li>• Cleaning of exhaust gasses</li><li>• Noise abatement</li><li>• Nature and landscape protection</li><li>• Other</li></ul>
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APEC documentation has indicated that environmental protection is one of the world's fastest growing industries. Total production value in 1997 was US\$469 billion. At its current rate of growth, 5% per year, total production value will be US\$543 billion by the year 2000. The APEC region currently makes up 65% of the global environmental goods and services market. In the Asia Pacific region, annual growth of this industry is predicted to be 17%.

The EPA's Office of Science and Technology Advisors indicated that in the first half of this year, the detailed scope and liberalization schedule of the environmental goods and services liberalization work plan will be completed. In June of this year, the plan will be submitted for review at the APEC trade ministerial meeting. The EPA expects an agreement on the plan by July 1, 1999 followed by implementation six months later. Liberalization of the environmental goods and services market in Taiwan can improve the channel for obtaining foreign environmental technology and services. It can also eliminate the barriers for Taiwan manufacturers to enter the markets of other APEC member economies. In promoting these efforts, the Industrial Development Bureau

(IDB), Ministry of Economic Affairs, will handle environmental goods and the EPA will handle environmental services.

In a review of relevant local laws, the EPA concluded that local and foreign service providers do not face any regulatory differences. Therefore, at upcoming APEC and WTO talks, Taiwan representatives will proclaim the openness of these markets. During the February 27 and 28 Environmental Goods and Services Liberalization Specialists Meeting, Taiwan representatives confirmed with other APEC member economies the details of early liberalization.

The EPA hopes that local companies offer suggestions on whether Taiwan should further open the environmental services market. Companies should provide lists of services, reasons for their opinions, and possible schedules for further liberalization. These companies should also provide information on whether they have encountered non-tariff trade barriers in other APEC member economies. This information will be used to set the bottom line for Taiwan in upcoming negotiations.

The EPA suggests that concerned companies and government organizations can work together to research issues surrounding economic and technical cooperation with other APEC member economies. Information such as environmental laws and relevant investment data from other member bodies should be collected and environmental technology databases created.

## ***Electric Motorcycles Targeted as Key Industry for Development***

Vice Premier Chao-Shiuan Liu has urged the development of electric motorcycle manufacturing capability in Taiwan. To formulate a strategy for developing this industry, Liu instructed the EPA to put together an action plan and to discuss it with other relevant agencies.

In its *Electric Motorcycle Development Action Plan*, the EPA developed objectives that are based on both environmental protection and economic considerations (see table).

Current trends indicate that by 2010 annual sales of motorcycles will reach 9 million units. It is estimated that electric motorcycles will make up one-third of this total, or three million units sold. If this sales rate is achieved, the EPA has calculated that carbon monoxide (CO) emissions can be reduced by 42,000 metric tons annually. (% of total motorcycle emissions???) Hydrocarbon and nitrogen oxide (NO<sub>x</sub>) emissions can be reduced by 23,400 tons, and carbon dioxide (CO<sub>2</sub>) can be reduced by 62,800 tons annually. As for energy savings, each year 2.2 million megawatt hours can be saved and off-peak electricity use rates can be raised.

In addition, electric motorcycles will become a major form of transportation in the next century. Based on the current market strength of Taiwan's motorcycle industry, and with the help of government support, Taiwan's annual sales of electric motorcycles should reach NT\$50 billion. Moreover, Taiwan should become a global research and development center for electric motorcycles.

There are still several difficulties surrounding electric motorcycle technology and use, however. Batteries, electric motor controllers, battery level indicators, motors, etc. are all technical areas where breakthroughs have yet to be achieved. The EPA has indicated its intention to coordinate with the Ministry of Economic Affairs (MOEA) and the

National Science Council (NSC) in providing funds for research and development. The EPA and the Ministry of Transportation and Communications will be responsible for creating an environment beneficial to electric motorcycle use.

In the realm of regulatory controls, the EPA will continue to tighten emissions standards as a means to phase out highly polluting motorcycles, and thereby greatly raise the sales potential of electric motorcycles. Once the development of electric motorcycles has fully matured, the EPA will coordinate with traffic control agencies in urban areas to stop issuing registrations for motorcycles with internal combustion engines. This approach has already received the support of the Chief of the Taipei City Department of Transportation.

To lend further support, the EPA will subsidize both vehicles and batteries. Sales of electric motorcycles will be subsidized with NT\$3,000 per vehicle, and the EPA will provide financial support to the 2,000 electric motorcycle points of sale for the installation of battery recharging equipment.

The EPA has also indicated that total government financial support needed to implement the *Electric Motorcycle Development Action Plan* will be approximately NT\$3.8 billion from fiscal years 1999 to 2002. From the Air Pollution Control Fund, NT\$1.3 billion in research and development support will be needed. In addition, the MOEA and NSC will also be asked to earmark portions of their budgets for this endeavor.

Schedule	Number of vehicles to be sold	Notes
1999	10,000	<ul style="list-style-type: none"> <li>■ EPA to select specially designated locations for initial promotion.</li> <li>■ The Kwang Yang Motor Co. (Kymco) plans to begin mass production in March, 1999.</li> </ul>
2000	40,000	<ul style="list-style-type: none"> <li>■ Electric motorcycle sales to comprise 2% of all motorcycle sales.</li> <li>■ EPA to implement stricter emissions standards and thus urge reduction sales of highly polluting two-stroke motorcycles.</li> </ul>
2001	80,000	<ul style="list-style-type: none"> <li>■ Electric motorcycle operating environment to be gradually put in place; sales to increase.</li> </ul>
2002	150,000	<ul style="list-style-type: none"> <li>■ 50% of two-stroke motorcycle sales to be replaced by electric motorcycle sales; four-stroke motorcycles will absorb the other half.</li> </ul>
2003	200,000	<ul style="list-style-type: none"> <li>■ Electric motorcycle technology to become mature; production of nickel hydrogen batteries to begin.</li> <li>■ Emissions standards to be tightened further; the price of four-stroke motorcycles to exceed that of electric motorcycle</li> </ul>
2006	400,000	<ul style="list-style-type: none"> <li>■ Continued growth of electric motorcycle sales; annual sales of electric motorcycles to</li> </ul>

		reach 40% of total motorcycle sales.
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## ***Criteria for Regulating Air Polluting Activities to be Discussed***

Article 26 of the amended *Air Pollution Control Act*, which recently passed first reading in the Legislative Yuan, indicates that the following activities are to be regulated by the Act:

1. Burning, melting, refining, grinding, metal casting, transporting, or other operations that create visible particulate pollution or damage property.
2. Building construction, road surfacing, transportation of building materials and solid waste, or other work activities without proper pollution control measures that create airborne dust or other air pollutants.
3. Inappropriate dumping, mixing/blending, stirring, heating, baking or other activities which create bad odors or give off toxic gasses.
4. Use, transportation, or storage of organic solvents or other volatile organic compounds which emit bad odors.
5. Cooking activities which emit oily smoke or bad odors.
6. Other air polluting activities announced by competent authorities.

In order to prevent enforcement agencies from freely determining enforcement scope and thereby creating contention, this article empowers the EPA to set the implementation criteria for regulating activities which create pollution. On February 21, 1998 the EPA drafted implementation criteria and invited comment from environmental protection agencies at all levels of government.

The draft initially sets out definitions of terms. "Visible particulate pollution" is defined as particulate pollution, not including steam, visible to the naked eye. "Boundary" is defined as the border of limitation around sites under private or public use or management (not necessarily the areas over which ownership rights exist). "Construction engineering" includes the construction of buildings, roads, bridges, tunnels; and activities such as dirt and gravel transportation, demolition, zone development, ditch digging, mountain slope development, river dredging, marine harbor development or other civil engineering related activities. "Inappropriate dumping" means to throw away or discard without proper treatment or to store or dispose in a site that lacks proper prevention or treatment facilities.

These criteria, in addition to controlling activities with "non-stack" air emissions, will also regulate the following: (1) activities where emission flue pipes do not extend to the outside of the building but pollutants disperse beyond the confines of the building, (2) activities where emission flue pipes have cracked or broken, and (3) activities where emission flue pipes extend into water ditches, sewers, or other public utilities.

If companies with activities listed in items 1, 3, 4, and 5 (described in paragraph 2 of this article) have not installed or are not using effective collection and treatment equipment and are, therefore, creating dispersion of particle pollutants, toxic gasses, bad odors, or oily smoke, then these activities will be identified as "air polluting activities." Companies which have implemented control measures (mentioned in item 2

of the second paragraph above) but still create airborne dust or other air pollutants will also have their activities defined as “air polluting activities.”

In judging whether a site is engaging in “polluting activities” the draft requires that inspectors make determinations outside of the building in question or beyond the boundary of the site. From this position, inspectors must be able to reasonably determine that air pollution is being emitted from the source under inspection. In determining emissions levels of particulate pollutants, the influence of steam should not be considered; and in determining bad odors, the quality of the odor should be noted (such as “rotten egg smell,” or “fishy smell”). Location of the odors and wind direction should also be precisely noted or mapped.

These draft criteria will be presented further in upcoming public hearings for representatives from industry and other sectors.

## *News Briefs*

### *Drinking Water Quality Standards Announced*

On February 4, 1998, drinking water quality standards were announced. All public drinking water dispensing machines or fountains must comply with the announced standards. Violators will be fined between NT\$60,000 and NT\$600,000.

### *Regulations Governing the Hiring of Foreign Environmental Specialists Amended*

To further Taiwan’s internationalization, on February 4, 1998, the EPA amended the *Regulations for the Permitting and Management of Hiring Foreign Technical Specialists by Environmental Businesses*. The following amendments were made: (1) the limitation on stay was extended from two years to three years; (2) limitations on the financial status of environmental businesses that can hire foreign specialists were eliminated; (3) applications must no longer be approved by a Taiwan representative office in the specialist’s home countries (with the exception of Southeast Asian countries); and (4) health examinations are no longer required.

### *Amendments to Surface Water Classification and Water Quality Standards Announced*

The *Surface Water Classification and Water Quality Standards* were formally announced on January 21, 1998. These standards are intended to set environmental baselines and will differentiate between standards for protecting the natural environment and standards for protecting human health (heavy metals and pesticides). Standards will no longer be set according to water body usage. The values in the new standard and those in the current standard are not dramatically different. However, once water quality in a regulated water body achieves the target, the classification of the water body or related standard values cannot be reduced. The EPA should also, within two years, study the current plans for water zones and related water body classification.

### *EPA Announces Guidelines for Regularly Inspecting Stationary Pollution Sources*

On January 23, 1998, the EPA announced the targets for the first round of regular inspection of stationary air pollution sources. This round targets 10 types of companies (a total of 778 factories): owners/operators of large-scale boilers, cement manufacturers, glass manufacturers, ceramic or clay material producers, steel smelting, non-ferrous metals basic industry, paper and pulp industry, asphalt mixing, lime

production, and waste incineration. Inspections will occur from once per year to once per quarter. If inspected emission values are stable and comply with emissions standards, then the frequency of inspection can be decreased.

#### *Drinking Water Management Enforcement Rules Announced*

The *Enforcement Rules for Drinking Water Management Provisions* were announced on February 4, 1998. The entire areas within the watershed boundaries of drinking water sources, Type A water bodies, or planned or existing reservoirs shall be delineated as water quality protection zones. In the event of natural disasters, public water agencies shall adopt emergency response measures and strengthen water quality monitoring efforts; the public should also be notified as to the status of water quality and what response measures are being taken.

#### *EPA Announces Changes to Toxic Substances Management Personnel Regulations*

In support of the *Toxic Substances Control Act's* new system of classifying the management of toxic substances, the EPA on February 25, 1998, amended for the third time regulations concerning the appointment of environmental specialist personnel. The EPA now requires sites that manufacture, use, or store toxic chemicals to appoint specialized toxic substances management personnel. The classification and number of specialists required for appointment will be set according to the toxicity, intended use, and amount of substance handled. Alternative specialized toxic substances management personnel must be of the same classification and ranking (or higher) in order to be a qualified substitute. Companies already required to comply with regulations related to the manufacture, use, and storage of toxic substances shall, according to the newly amended regulations, complete appointments of specialized toxics management personnel by April 30, 1999.

#### *Aluminum Sulfate and 66 Other Pollution Control Agents not to be Listed*

On February 21, 1998, in accordance with Article 52 of the *Environmental Agents Control Act*, the EPA announced the first round of agents to be listed as controlled. These do not include aluminum sulfate and 66 other pollution control agents. For a detailed list, please contact the EPA's Bureau of Environmental Sanitation and Toxic Chemicals Control, Section 1.

#### *New Round of Companies that Must Apply for Stationary Pollution Source Permit Announced*

On February 10, 1998, the EPA announced the seventh round of companies that are required to apply for a permit for the installation, alteration, and operation of stationary pollution sources. Companies in the seventh round include the following: dry cleaners, adhesives manufacturers, rubber product manufacturers, quartz sand producers, cement product manufacturers, printing companies, mineral extraction, and transportation companies. This latest round brings the number of facilities that must apply for a stationary pollution permit to around 9,800.