



Environmental Policy Monthly

Environmental Protection Administration, Taiwan, ROC

Feature Column

Top Ten New Environmental Policies in 2007

The EPA released several new policies and measures on 1 January 2007. Modifications have been made to air pollution fee rates, pollutant emission standards, public waste landfill management regulations, and fee rates for recycling, clearance and treatment of mandatory recyclables. Revisions have also been made to regulations concerning toxic chemical substance handling and awards for turning in end-of-life vehicles. These policies as well as achievements of each EPA department in 2006 are outlined below.

New Environmental Policies and Measures Implemented in 2007

Policy	Content (effective from 1 January 2007)
1. Air pollution control fees	Stationary source NO _x and SO _x air pollution control fee rates adjusted. The EPA will begin collecting VOC air pollution control fees. Gasoline engine air pollution fee rates: Grade A: NT\$0.03 Grade B: NT\$0.075 Grade C: NT\$0.19 Diesel engine air pollution fee rates: Grade A: NT\$0.03 Grade B: NT\$0.075 Grade C: NT\$0.2
2. Air pollution emission standards	The dioxin emission standard for electric arc furnaces has been tightened from 5.0 ngTEQ/Nm ³ to 0.5 ngTEQ/Nm ³ . Except where other regulations apply, all stationary pollution sources shall comply with a dioxin emission standard of 2.0 ngTEQ/Nm ³ . Factories established after 1 January 2007 shall be subject to stricter emission standards for lead, cadmium and mercury.
3. VOC emission standards	Factories with polyurethane synthetic leather manufacture equipment installed before 31 December 1997 must comply with total VOC emission standard of 120g/m ² .
4. Public waste landfill management regulations	Exempting offshore islands and remote areas, all combustible waste and other resources shall not enter public sanitary landfills for treatment. For counties and municipalities without incinerators or with incinerators not fully constructed or in operation, the EPA will assist with transferring waste to adjacent counties or municipalities for treatment.

In This Issue

Feature Column: Top Ten New Environmental Policies in 2007.....	1
Mandatory Sorting of Biomedical Waste into Toxic Genetic, Sharp, and Infectious Waste.....	3
Hazardous Waste Identification Standards Follow International Trends.....	4
Recycling and Treatment Firms Required to Renew Licenses Every Five Years.....	5
East Coast Transportation Policy Passes SEA	6
EIA Guidelines Revised to Consider Ecological Engineering and Greywater Systems.....	7
EPA Sets Model Response with Handling of Capsized Indonesian Banana Oil Tanker	8
More Enterprises Required to Report Industrial Waste Clearance Plans.....	11
Public Opinion Poll on Changes to Plastics Restriction Policy.....	12
News Brief.....	7
News Briefs.....	9
Activity.....	10

- | | |
|--|--|
| 5. Management of toxic chemical substance handling | Handlers of toxic chemical substances octa-BDE or penta-BDE shall regularly submit handling records, discharge volume records, and delivery manifests of toxic chemical substances according to regulations. They are also required to complete improvements to labeling of containers, packaging, handling premises and facilities, as well as prepare substance safety charts and emergency response equipment. Di-n-octyl phthalate (DNOP) has been announced as a toxic chemical substance and its use is prohibited in the production of toys for children under three years old. |
| 6. Strengthened control of wood preservatives | From 1 April 2007, chrominated copper arsenic (CCA) will be prohibited as a wood preservative for the following uses: 1. Interior construction materials, furniture, outdoor tables and chairs. However, its use will not be restricted in beams and columns of buildings. 2. Playgrounds, landscaping, balconies, hallways and fences. However, its use will not be restricted in bridges and foundations contacting the ground. 3. Other facilities involving contact with human skin |
| 7. Disease vector control management | Annual implementation record reports are to be submitted to local environmental protection bureaus. Failure to report before the end of January is subject to penalty. |
| 8. End-of-life vehicle turn-in rewards | Rewards for turning in end-of-life automobiles under (not including) ten years old and motorbikes under (not including) seven years old have been cancelled. People must also present a certificate from Ministry of Transportation and Communications supervisory agency proving that the vehicle has reached the end of its life or proof that the papers for the vehicle have been turned in for cancellation before applying for a reward. Public agencies are no longer eligible to apply for rewards. |
| 9. Adjusted recyclable waste recycling, clearance and treatment fees | Adjustments have been made to recycling, clearance, and treatment fees for these six categories of waste: motor vehicles (cars and motorbikes), tyres, lights (straight fluorescent tubes), LCD monitors and televisions. |
| 10. Groundwater pollution prevention at gas stations | According to Article 15 of the <i>Regulations Governing Installation of Groundwater Pollution Prevention Facilities and Monitoring Equipment at Gas Stations</i> (加油站防止污染地下水體設施及監測設備設置管理辦法), from 1 January 2007, enterprises should use the Internet to transmit monitoring records for Articles 7~1 and 8~1 to 8~5. |

Outline of EPA administrative performance in 2006:

Department of Planning: Held the National Sustainable Development Forum; Assisted with the Taiwan Economic Sustainable Development Conference; Organized system for reporting unkempt areas; Enhanced efficiency of the EIA system

Department of Air Quality Protection and Noise Control: Held the Central American environmental ministers meeting; Promoted legislation process of the Greenhouse Gas Emission Reduction Act (draft); Submitted Indoor Air Quality Management Act (draft); Enforced Fourth Stage Emission Standards for Diesel Engine Cars ahead of schedule in October 2006; Revised Noise Control Standards (effective management of noise from interior design construction, home karaoke, and street demonstrations)

Department of Water Quality Protection: Sought compensation from pollution caused by AMORGOS tanker; Removed oil cargo from chemical tanker DEWI BUNYU; Set ocean dumping regulations; Simplified and revised the following: Regulations Governing Review of Water Pollution Control Measure Plans and Permit Applications, Regulations Governing Water Pollution Control Measures and Monitoring Reports, Soil Treatment Standards, Criteria for Determining Penalties for Serious Violations of the Water Pollution Control Act, Criteria for Notifying Deadlines for Improvement or Determining Compensation for Violations of the Water Pollution Control Act; Revised standards of ecological engineering to purify water quality

Department of Waste Management: Enforcement of mandatory waste sorting; Restriction on excessive

packaging; Restriction on manufacture, import and sale of mercury batteries; Promotion of ban on disposable tableware for indoor use; Crackdown on illegal uses of pig carcasses

Toxic Chemical Substance Control: Dengue prevention; Executed the "Plan to Mobilize Citizens to Clean Up Residential Environments"; Established the toxic chemical disaster response team

Environmental Personnel Training: Held environmental professional training for 9,111 participants in 144 training sessions (waste clearance safety and sanitation, pollution monitoring of underground storage tank systems, and marine pollution control and response); Provided certificate training for 8,248 participants in 248 sessions; Held national environmental affairs forum on promoting citizen action to reduce carbon dioxide. Consolidated consensus, ideas and suggestions, and actively researched and promoted various reduction measures.

Environmental Analysis Laboratory: Motorbike inspection station audits; Monitoring of chemical agents used in drinking water treatment; Goat meat dioxin monitoring

Environmental Monitoring: Held the World Water Monitoring Day event; Monitored water quality in coastal area recreational waters; Routine water body water quality monitoring; Issued dust storm warnings

Office of Science and Technology Advisors: Held the "First Taiwan-Japan Environmental Meeting" and

follow-up meetings; Held the Environmental Protection Consensus Forum; Received international affirmation of nanotechnology research on environmental issues

Soil and Groundwater Pollution Control: Announced soil pollution remediation sites; Investigated abandoned factories; Investigated and improved contaminated farmland; Discussed the Regulations Governing Preliminary Assessment of Soil and Groundwater Pollution Control Sites, draft revisions to the Soil and Groundwater Pollution Remediation Act, and the Regulations Governing Installation of Groundwater Pollution Prevention Facilities and Monitoring Equipment at Gas Stations.

Bureau of Environmental Inspection: Food waste recycling; Management of public landfill operations; Strengthened safety training for environmental personnel; Water quality management of packaged and dispensed drinking water sources; Environmental inspection and monitoring (mobilized 1,336 people-times to eradicate dengue-carrying mosquitoes, coordinated with the Bureau of Environmental Inspection to inspect illegal gas stations and prosecute offenders, inspected construction mixed waste and general household waste, prosecuted 6 offenders)

Resource Recycling: Promoted initiative to improve the image of recyclers; Announced recycling, clearance and treatment fees for 31 items and containers in 14 categories; Integrated end-of-life vehicle recycling management system

Waste Management

Mandatory Sorting of Biomedical Waste into Toxic Genetic, Sharp, and Infectious Waste

The EPA promulgated revisions to the Methods and Facilities Standards on Storage, Clearance, and Treatment of Industrial Waste (事業廢棄物貯存清除處理方法及設施標準) on 14 December 2006. In the future, biomedical waste must be sorted into the three categories of toxic genetic, sharp and infectious waste. Waste treatment methods are distinguished according to new sorting and packaging regulations. Infectious waste should be stored under zero degrees Celsius, and may be kept in storage for no longer than 30 days. Other additions include an allowance for simplified labeling of waste through use of automatic recognition electronic or optical tagging, and a stipulation to shorten the maximum storage time of hazardous industrial waste to one year.

The EPA promulgated revisions to the Methods and Facilities Standards on Storage, Clearance, and Treatment of Industrial Waste (事業廢棄物貯存清除處理方法及設施標準) on 14 December 2006. Revisions focused on regulations regarding the clearance and treatment of biomedical waste. To prevent these revisions from directly impacting enterprises and to

protect the rights and interests of the private sector, the EPA will give industries a buffer period of one year in which to respond. During this time the EPA will publicize the content of these revisions and assess progress to ensure enterprises adhere to the required measures.

This revision complements adjustments made to

the identification standards of hazardous industrial waste. Biomedical waste is classified into the three main categories of toxic genetic waste, sharps, and infectious waste. Hospitals or biotechnology research organizations must adhere to the new regulations. Sorting should take place at the outset of waste generation; classification of different wastes is based on the waste treatment methods specified in new sorting and packaging regulations. Waste requiring disinfection treatment should be put in yellow packaging. Other waste that can be treated through high temperature treatment such as incineration or vitrification should be put in red packaging. Color-coding thus distinguishes treatment method and helps prevent the potential hazard of mixing up different kinds of waste during transport and treatment. Moreover, as hospitals have long questioned the excessively strict measure calling for a maximum storage time of seven days, in this revision the EPA has referenced methods used in the EU and US by adding that infectious waste must be kept below zero degrees Celsius and may be stored for a maximum of 30 days. However, the EPA emphasizes that due to sanitation concerns,

clinics generating waste containing bacterial culture or histopathological tissue should ensure prompt clearance of such wastes.

Adjustments have also been made to certain aspects of industrial waste management. Waste labeling can be simplified if automatic recognition electronic or optical tagging (such as RFID) is adopted. The maximum storage period for hazardous industrial waste has been shortened to one year to prevent potential hazards of storing dangerous waste for too long. It is also stipulated that waste pharmaceuticals, dioxin and waste toxic chemical substances should first go through designated pretreatment to prevent the risk of endangering human health or the environment. The EPA indicates that industrial waste slated to enter sanitary landfills of commissioned clearance and treatment organizations must comply with landfill entrance control standards. Waste that does not comply with control standards must first undergo pretreatment. The EPA will specify related control standards in the near future based on operations, manufacture, waste type and treatment method, and hazardous substance controls to prevent contamination of landfills.

Waste Management

Hazardous Waste Identification Standards Follow International Trends

The EPA promulgated revisions to the Hazardous Waste Identification Standards on 14 December 2006, with major revisions made to criteria used to determine the hazardousness of waste. Revisions include dioxin waste, which has increasingly become cause for concern here and abroad. The criteria for determining hazardousness of dioxin waste are now based on total volume concentration control methods. Waste containing over 1 ng I-TEQ/g of any of 17 compounds including 2,3,7,8-tetra chloro-dibenzo-p-dioxin (TCDD) or furans is now considered dioxin hazardous waste.

The EPA indicates that Toxic Characteristic Leaching Protocol (TCLP) test standards were used in the past to determine the harmfulness of dioxin waste. However, TCLP does not lend itself to testing for dioxin as dioxin is fat-soluble. Therefore, the EPA has referenced advanced nations' control methods of dioxin waste in revising the Hazardous Waste Identification Standards (有害事業廢棄物認定標準). To prevent enterprises from diluting waste or otherwise avoiding management of dioxin waste, waste is considered hazardous if it contains over 1 ng I-TEQ/g of any of 17 compounds including 2,3,7,8-tetra chloro-dibenzo-p-dioxin (TCDD) or furans. Enterprises identified as having dioxin

hazardous waste will be required to adopt heat pretreatment methods. This measure will help prevent risks to human health and the environment. Biomedical waste management methods emphasize diverting different types of waste into different treatment channels based on hazardous properties, classified into the three groups of toxic genetic waste, sharps and infectious waste. The category of toxic genetic waste is a new addition to the medical waste management system. This has been added because of the increased demand for genetic medicines for cancer or serious diseases in recent years. Due to hazardous risks to the environment and human health, genetic biomedical waste is now

classified and regulated as hazardous industrial waste. Biomedical waste control targets have been expanded. In addition to the previously regulated medical organizations, medical examination facilities and medical laboratories, other targets now under regulation include industry and research organization biosafety laboratories above the second level, laboratories engaging in genetics or biotechnology, biotechnology factories and pharmaceutical factories producing toxic genetic waste, sharps and infectious waste.

In response to international inflation of metal goods and maturation of domestic treatment technology in recent years, industry has adopted recycling methods for mixed metals. The Basel Convention and advanced countries have not unanimously recognized mixed metal as hazardous waste. Therefore, the EPA indicates that Hazardous Waste Identification

Standards will retain controls on the original 11 mixed metals that have the potential to pollute the environment at treatment and export/import stages. Hazardous metals containing items on List A of the Basel Convention including beryllium, antimony, tellurium and thallium are also under regulation. This ensures domestic controls over mixed metals are up to speed with international controls and encourages industry to recycle resources.

The EPA indicates that to prevent these revisions from directly impacting industries and jeopardizing civil rights and interests, businesses required to add new equipment in response to changed definitions of hazardous waste will be allowed a grace period of one year. After the revisions take effect, the EPA will continue promotion and inspection work and ensure that industries are implementing the required changes to enhance hazardous industrial waste management.

Waste Management

Recycling and Treatment Firms Required to Renew Licenses Every Five Years

The EPA promulgated the Regulations Governing the Mandatory Recyclable Waste Recycling and Treatment Industry on 26 December 2006 to bolster management of the recycling and treatment industry. The new regulations put forth several control stipulations regarding application and review procedures, and follow-up management. Applicants must submit documents on the status of operations, clearance and treatment facilities, and pollution control measures. In addition, environmental protection agencies are required to conduct onsite audits. Operating licenses are good for five years, after which the enterprise must submit relevant documents and apply for a renewal. This ensures strengthened management and greater confidence in attaining pollution prevention objectives.

In recent years, the concept of resource recycling has already been so well accepted among the public that the recycling industry has evolved from "scavengers" and a few small-scale secondhand stores into well-organized corporate ventures. The EPA is continually strengthening management and expanding the environmental requirements of these larger-scale industries. Concrete regulations were deemed necessary to increase the capacity for pollution control and to ensure enterprises can maintain normal operations while complying with pollution prevention measures over the long term of business operations. The EPA thus began revising the Regulations Governing the Mandatory Recyclable Waste Recycling and Treatment Industry (應回收廢棄物回收處理業管理辦法) in early 2006. Public hearings and discussions were held according to legal procedures to deliberate each party's response. The

revisions are now complete, effectively raising various environmental standards for each industry.

The main goal of this revision is to strengthen quality control of this industry and reduce pollution. Many control stipulations have been put forth regarding application and audit procedures, and follow-up management. For example, applicants should submit documents concerning the status of operations, clearance and treatment facilities, and pollution prevention measures. A stipulation has been added requiring environmental agencies to conduct onsite audits. Moreover, to prevent enterprises from polluting factory grounds or the surrounding environment during their legal term of business due to ineffective management, the new regulation stipulates a five-year expiry date for operating permits. Businesses must submit related documents for extension before their operating permit expires. Those failing to do so before

the period ends will have their registration credentials revoked.

The regulations provide an ample buffer period for businesses that have already obtained registration papers before this revision took effect. Those obtaining registration permits before 1 January 2004 shall apply for a renewal by submitting related documents to local environmental agencies before

31 December 2007. Businesses that obtained registration permits after (and including) 1 January 2004 must apply for a renewal before 31 December 2008. This regulation is posted in detail at the EPA's website (<http://w3.epa.gov.tw/epalaw/index.aspx>). The EPA calls on all to pay heed to related application schedules and apply in advance in order to best safeguard their rights and interests.

EIA

East Coast Transportation Policy Passes SEA

Taiwan's strategic environmental assessment (SEA) system regulations were drawn up in 1997, followed by implementation measures announced in 1998. Since then only four government policies have completely passed the SEA process. A new case has been recently added with the EPA's review of the Ministry of Transportation and Communication's "Taipei-East Coast Transportation System Development Policy Assessment Statement" on 25 October 2006.

Taiwan's strategic environmental assessment (SEA) system is in place to assess the environmental impacts of government policies. Since SEA regulations were drawn up in 1997 followed by implementation measures announced in 1998, only four government policies have completely passed the SEA process. Those four policies are the National Council for Physical Fitness and Sports, Executive Yuan's "Golf Course Development Policy" the Water Resources Agency, Ministry of Economic Affairs "Taiwan Area Water Resources Development Guidelines Plan" as well as the "Guidelines for Downsizing Tap Water Source Water Quality and Quantity Protected Areas" and the Industrial Development Bureau, Ministry of Economic Affairs "Waste Management Policy." MOTC submitted the "Taipei-East Coast Transportation System Development Policy Assessment Statement" to the EPA for review on 25 October 2006. The EPA convened a public hearing on the East Coast transportation policy SEA on 21 November 2006, inviting industry and commerce organizations, environmental NGOs, civil representatives and other related organizations. A preliminary review session was held on 28 November by a working group, whose recommendations were submitted to the Environmental Impact Assessment Commission (EIAC) for further discussion.

After thoroughly discussing the environmental impacts of the East Coast transportation policy, the EIAC made the following six recommendations: 1) Environmental protection should be the top priority of East Coast industrial development and transportation policy. 2) East Coast residents' demands for improved

transportation between Taipei and the East Coast should be taken into consideration. However, based on the MOTC's impact assessment, parts of the plan obviously have a negative impact on the natural ecosystem, use of natural resources and environmental carrying capacity; it is therefore recommended that the policy is reviewed more carefully. 3) All transportation improvements or construction should consider environmental engineering or employ the best feasible technology, and implementation methods and environmental protection policies should be announced for each individual development project to allow monitoring by citizens. 4) Impacts of the Taipei-Yilan Freeway on local society, economy and environment since it opened up in 2006 should be surveyed and analyzed to serve as a reference for analyzing the Taipei-East Coast transportation system development policy. 5) The East Coast has a large population of indigenous peoples; whatever transportation policy is chosen in the future, the impact on aboriginal culture, lifestyle and employment should be carefully considered. 6) Information regarding the decision-making process should be made available to the public and full public participation should be sought; decision-making should be transparent. MOTC was requested to provide an analysis on the interexchangeability of each project, assess the possibility of proposed projects causing irreparable damage, and explain the basis and rationality of its population growth calculations.

The EPA will promptly make an official draft of the above recommendations and submit to the MOTC for review according to protocol. The EPA has organized a special working group to begin reviewing the "National East Coast Su-Hua Expressway

Environmental Impact Difference Analysis, Environmental Status Difference Analysis, and Policy Review Report." Recommendations on the East Coast transportation policy SEA will be referenced during the review process.

EIA

EIA Guidelines Revised to Consider Ecological Engineering and Greywater Systems

On 20 December 2006, the EPA revised environmental impact assessment working guidelines and computer filing rules. This revision requires developers to submit formatted certification documents which will help authorities carry out cross-checks between writers and evaluators. When submitting preliminary drafts of designated documents to competent authorities, developers should submit computer files, openly disclose information, and computer file format should comply with related regulations. To broaden applications of ecological engineering, developers with projects in slopelands and other areas should consider environmentally sensitive areas and other conditions during the planning stage. To strengthen greywater system planning, future developers should consider treatment and recycling of greywater for toilets and irrigation purposes.

The EPA is authorized by the Environmental Impact Assessment Act (環境影響評估法) to set and promulgate Development Activity Environmental Impact Assessment Working Guidelines (開發行為環境影響評估作業準則) and Environmental Impact Assessment Document Computer Filing Guidelines (環境影響評估書件電腦建檔作業規範). Following trends to open up information, bring public participation into full play and coordinate with the real demands of the EIA system, revisions have been made on EIA working guidelines and computer file-creating working guidelines on 20 December 2006.

In the future, developers should attach documents to help competent authorities cross-check comprehensive assessors and impact area writers. Upon submitting statements, assessments, EIA difference analysis reports, cross-reference charts of changed content, environmental status difference analysis and countermeasure review reports, environmental impact survey reports, environmental impact surveys, analysis and response measures

or other EIA related documents designated by competent authorities, developers must attach a computer file and make information openly available. The format of computer files on environmental impact statements submitted by developers should conform to regulations.

In addition, some articles have been revised to complement related guidelines in the Water Resources Agency, Ministry of Economic Affairs, "Working Guidelines on Examining Water Use Calculations" (用水計畫書審查作業要點). To broaden applications of ecological engineering, developers with projects in slopelands and other areas should consider environmentally sensitive areas and other conditions during the planning stage. To strengthen greywater system planning, the EPA has referenced reviews of related cases, and in the future, developers should consider the installation of wastewater treatment and recycling facilities that use greywater for toilets and irrigation.

News Brief

Green Procurement Goal Raised to 83% in 2007

The EPA has announced the results of government organization green procurement in the first half of 2006. Over NT\$3.46 billion went toward green procurement, NT\$26 million greater than figures for the same period in 2005. The 2006 target green procurement rate was 80%, and the actual procurement of designated environmentally-preferable products reached 81.7%, marking a nearly 2% increase in just half a year. According to data compiled by the EPA, apart from a few agencies, most agencies directly under the Executive Yuan and most local governments have already achieved the preset goal. Therefore the goal for 2007 has been raised to 83% to broaden the effect of government green procurement. In addition, to make green consumption more widespread among the populace, the EPA piloted the "Private Enterprise and Group Green Procurement Implementation Plan" in the later half of 2006 and formally implemented it on 1 January 2007.

Water Quality

EPA Sets Model Response with Handling of Capsized Indonesian Banana Oil Tanker

The Indonesian-registered vessel Dewi Bunyu capsized and sank off the Taipei port on 15 July 2006 along with its cargo of banana oil. The marine emergency response company contracted by the ship owner completed cleanup of spilled oil and removal of damaged cargo by mid-January 2007. The ship owner has already submitted a report to the Ministry of Transportation and Communications' working group on oil spills and cargo salvaging. Implementation results will be confirmed by a third party public notary in February. The EPA commended the high degree of cooperation in emergency response by the ship owner, who proactively accepted responsibility for response measures, as well as the assistance from the Taipei County government, the Coast Guard Administration, the National Airborne Service Corps, the Ministry of Transportation and Communications, and the Fisheries Agency. The emergency response of this shipwreck can serve as a reference model for similar incidents in the future.

The Indonesian-registered banana oil tanker Dewi Bunyu capsized and sank off the Taipei port on 15 July 2006. The vessel was transporting a cargo of 1,000 tonnes of ethyl acetate (also known as banana oil) and about 33 cubic meters of fuel oil. Air pockets within the vessel caused the ship to float north after capsizing. The boat finally sunk to the ocean floor on 17 July off the shore of Linshanbi (麟山鼻). The EPA immediately convened related agencies on the day of the accident to establish the Central Disaster Emergency Response Center. The EPA also convened the first emergency response meeting, which confirmed the division of labor between the different agencies and ship owner. Complete information was obtained at the outset of the accident and there was close cooperation between the emergency response center and ship owner representatives. By the tenth meeting of the Central Disaster Emergency Response Center on 20 November 2006, the ship owner had completed all vessel inspection work and submitted a plan for removing the oil and cargo. The implementation of this plan was confirmed by all response center members.

In taking precautions during the initial stage of the shipwreck to prevent impacts to the marine environment, the Coast Guard Administration and the National Airborne Service Corps were requested to closely monitor from the ocean surface and from the air, as well as reinforce monitoring of nearby water quality and air quality. This response effort marked the first time for Taiwan to employ satellite and unmanned aerial vehicle technology to closely monitor pollution on the ocean surface. To prevent the shipwreck from jeopardizing the safety of ships in the area, the ship owner was requested to set

up warning buoys where the ship capsized. The Ministry of Transportation and Communications (MOTC) and the Fisheries Agency continually issued marine transportation notices to inform vessels traveling in nearby waters. The EPA states that the ship owner submitted its undersea inspection plan on 18 August 2006. The EPA required that the entire mission should be videotaped and submitted for examination to prevent the marine accident response company from secretly releasing oil into the sea during underwater inspection work. The ship owner was also requested to inform the Coast Guard Administration of vessels working in the vicinity so that the area can be monitored.

To ensure that the ship owner had thoroughly completed pollution cleanup work, during the 20 November 2006 meeting at the Central Disaster Emergency Response Center the EPA requested the ship owners to pay insurance policy fines and expenses incurred by each government agency, as well as complete oil cleanup and cargo removal contract plans. If not yet able to complete salvage work on time, the ship owner should deposit funds in a designated bank account in Taiwan to handle related costs. The captain and chief engineer of Dewi Bunyu were allowed to leave Taiwan only after clarifying responsibility. Funds in the designated account can only be withdrawn after all oil and cargo are completely removed, and after the MOTC completes a review of follow-up vessel salvage according to the Commercial Port Act.

The EPA confirmed that the ship owner had removed all oil and cargo by the middle of January 2007, making every effort to carry out salvage work as quickly as possible while tidal and maritime conditions permitted. The ship owner has already

submitted a report on implementation results to the MOTC working group on oil spills and cargo salvaging, which will be confirmed by a third party public notary in February. The total of NT\$3,172,752 in expenses incurred by government agencies including the Coast Guard Administration, the National Airborne Service Corps, the Taipei County Environmental Protection Bureau and the EPA were

remitted into each agency's account in January 2007. An additional NT\$300,000 in fines was paid to the Taipei County Environmental Protection Bureau. The EPA points out that the ship owner's high level of cooperation and willingness to accept responsibility has made this emergency response model worthy of referring to during similar incidents in the future.

News Briefs

Top Ten Counties/ Municipalities of Residential Environment Cleanup Plan

An award ceremony was held on 11 December 2006 to encourage the first group of counties and municipalities to receive high performance ratings in implementing the EPA's "Plan to Mobilize Citizens to Clean Up Residential Environments." The ten top performers in this round of evaluations were Tainan City, Taipei City, Taichung City, Taichung County, Kaohsiung County, Taipei County, Yilan County, Penghu County, Taitung County, and Changhua County. The environmental cleanup and maintenance aspects covered in this plan include organizing designated environmental cleanup days, checks to see that people are picking up after their dogs, cleanup of vacant lots, checks to see that public toilets are clean, cleanup and maintenance of streets, removal of illegal ads, offering reward

money for reporting of environmental offenses, organizing waste reduction and resource recycling, street sweeping, urban greening and creating air quality purification zones, monitoring fish boat harbor waste oil water and garbage facilities, cleanup of river surfaces, cleanup of untidy areas and notices, and use of media to advocate environmental protection. The EPA hopes that each recipient continues to promote environmental cleanup. The next three rounds of evaluation will take place in January, April and July to ensure a clean and comfortable living environment for all citizens.

Dust Storm News Available Via Email and Mobile Phone

November to May is the season for dust storms in East Asia. The continental cold high pressure weather system increases the likelihood for dust storms to follow the northeasterly winds to Taiwan,

resulting in increased particulate matter and poorer air quality. During this period, the EPA conducts dust storm forecasts and monitoring work, and broadcasts the latest news. To notify citizens in advance of how dust storms will affect air quality, the EPA has launched a new email and mobile phone message service that sends dust storm warnings to concerned citizens. To learn more about this service, please go to [<http://www.epa.gov.tw/dust>] or call (02)2311-7722 ext. 2322.

Reused Computers Donated to Children in Low-Income Remote Areas

To reduce Taiwan's environmental load, promote resource recycling, and shorten the gap between urban and rural areas, the EPA has successfully fused the enthusiastic participation of many different circles to achieve its goal of refurbishing 3,800 used computers and donating them to children in low-income remote areas of Taiwan. The EPA held a "Reused Computer Donation Ceremony" at National Taiwan University Hospital on 21 December 2006. Awards were passed out to show thanks to donors and sponsors as well as all those who donated their computers and software. Outcomes of the activity were also displayed during the event. Representatives came from as far away as Haiduan Elementary School in Taitung and Neishih Elementary School in Pingtung to explain the advantages of acquiring these reused computers. The EPA calls on all types of organizations to continue supporting this reused computer event. More information on this donation drive can be found at the EPA's recycling website (<http://recycle.epa.gov.tw>) or by calling the recycling hotline at 0800-085717.

The screenshot shows the EPA website interface. At the top, there is a navigation bar with 'Air Quality' and '空氣品質監測' (Air Quality Monitoring) selected. Below this, there are two main sections for subscription:

- 訂閱 沙塵暴新聞 - 請填寫下列表格** (Subscribe to Dust Storm News - Please fill out the following form): This section includes fields for '姓名:' (Name), '電子信箱:' (Email), and '手機號碼:' (Mobile Number). There is a '訂閱' (Subscribe) button.
- 取消訂閱 沙塵暴新聞 - 請輸入您的E-mail帳號** (Unsubscribe from Dust Storm News - Please enter your E-mail account): This section includes fields for '姓名:' (Name), '電子信箱:' (Email), and '手機號碼:' (Mobile Number). There is a '取消訂閱' (Unsubscribe) button.

On the right side of the page, there is a search bar and a sidebar with various links like '空氣污染指標' (Air Quality Index) and '衛星遙測影像' (Satellite Remote Sensing Images). At the bottom, there is a footer with the EPA logo and contact information.

Activities

Fourth World Water Monitoring Day Awards

The EPA invited all citizens to participate in the Fourth World Water Monitoring Day events, which lasted from 18 September to 18 October 2006. Over 3,000 people participated in this year's events. The EPA held an achievement exhibit and award ceremony at the National Taiwan University Hydraulics Laboratory on 16 December 2006 to share the results of this year's activity. Award recipients included 5 individuals for outstanding teaching lesson plans, 22 individuals for outstanding posters, 20 individuals for outstanding essays, 12 individuals for excellent slogans and 3 individuals for excellent webpage design. The EPA also especially commended the 10 top outstanding groups that most frequently reported back water quality monitoring figures. The EPA welcomes all to learn more about World Water Monitoring Day events on its website at <http://www.epa.gov.tw/wwmd>.



▶ Education objectives to protect aquatic environments are achieved through water quality monitoring events.

Awards Granted for Environmental Action, Photography and Education Initiatives

On 26 December 2006, the EPA held three joint awarding ceremonies for the following activities: "Wanted: New Environmental Lifestyle Ideas," "Environmental Photography Competition," and "Environmental Creative Education Implementation Plans." Altogether there were 29 recipients of silver, bronze and outstanding performance awards for their creative environmental ideas in the themes of food, clothing, shelter, and transportation. Awards were given to 33 outstanding creative environmental education plans, representing the actions and education initiatives of over thirty schools, with participation and outstanding results from over 200 classes of students. EPA Deputy Minister Lin Ta-hsiung was present at the awarding ceremony and handed out 84 awards.



▶ EPA Deputy Minister Lin Ta-hsiung handing out awards during the award ceremony

Waste Management

More Enterprises Required to Report Industrial Waste Clearance Plans

To ensure the appropriate treatment of waste and prevent careless actions from polluting the environment, on 1 May 2007, the EPA will announce new regulatory controls over industries required to submit industrial waste clearance plans and report waste flow online. Regulatory controls have been expanded to include construction businesses, building and demolition businesses, mandatory recyclable waste treatment enterprises, and industries using containers, tank wagons, non-pipeline methods, or ditches to clear waste in a manner non-compliant with effluent standards. Reformation and implementation of related noise controls are being carried out swiftly.

Construction waste is frequently dumped along roadsides, riverbeds, and mountainsides causing environmental pollution, affecting human health, obstructing traffic, and spoiling the environment. To put an end to such unlawful conduct, the EPA has drawn up three control stages that gradually expand controls over businesses generating construction waste. The first stage began in 2005 by requiring construction contractors or subcontractors working on an area greater than 2,000 square meters, or with construction costs exceeding NT\$50 million, and demolition enterprises to submit industrial waste clearance and treatment plans as well as submit waste flow via Internet.

The second stage targets construction contractors or subcontractors required to begin paying air pollution control fees from 1 May 2007 for construction projects exceeding 1,000 square meters and construction costs exceeding NT\$10 million, and demolition enterprises. The third stage includes contractors or subcontractors required to begin paying air pollution control fees from 1 August 2007 for construction projects exceeding 500 square meters and construction costs exceeding NT\$5 million, and demolition enterprises.

As regulatory control of containerized wastewater has been relocated from the Water Pollution Control Act to the Waste Disposal Act, industries designated as "industries using containers, tank wagons, non-pipeline methods, or ditches to clear waste in a manner non-compliant with effluent standards" have also been required to submit industrial waste clearance and treatment plans and report waste flow via Internet. The EPA indicates that from 2002, each year it has increased the number of industries required to submit industrial waste clearance and treatment plans and report waste flow online.

Currently, 19,759 businesses are required to submit industrial waste clearance and treatment plans, and 19,152 have already done so for a compliance rate of 96.9%. Of the 18,489 businesses required to file waste flow reports online, 17,887 have already done so for a compliance rate of 97%. This scheme wields command over 80% of industrial waste in terms of generated waste volume and flow of clearance and treatment processes. The total amount of industrial waste reported in 2006 increased by 928,000 tonnes compared to the amount reported in 2005, attesting to greatly increased performance of industrial waste control efforts.

To make it easier for those enterprises newly included under regulatory control to begin submitting industrial waste clearance and treatment plans and begin reporting the flow of waste clearance and treatment, the EPA will announce nationwide briefings regarding reporting procedures through each county and municipal environmental protection bureau and at public meetings. Information conveyed during these briefings will be compiled along with other related information and distributed to industries for reference. More information can also be obtained by calling a toll-free service number (0800-059-777), which addresses individual inquiries and tutors clients through online reporting procedures.

Recycling

Public Opinion Poll on Changes to Plastics Restriction Policy

The EPA conducted a public opinion survey on the cancellation of restrictions on plastic shopping bags at storefront food and beverage shops, and the ban on disposable tableware in government and school cafeterias. Survey results show that 61.3% of the public supports canceling the restriction on plastic shopping bags at storefront food and beverage shops, while 85.0% of the public is in favor of the ban on plastic disposable tableware in government and school cafeterias. About 20% of respondents said they regularly carry eating utensils with them when eating out.

To better understand the extent of public support of government restriction policies on plastics and how much these policies have changed people's habits, the EPA conducted a public opinion survey from 14~17 November 2006. The survey consisted of telephone interviews of 1,104 people over 18 years old from 23 counties and municipalities. Sampling was conducted with a confidence standard under 95% and a margin of error within +/- 3%.

Survey results show that 77.1% of respondents have reduced their use of plastic shopping bags since implementation of the restricted use policy. As for those who bring their own shopping bags, over 71.7% of those shopping at wholesale stores or supermarkets bring their own bags, while only 43.4% of shoppers at convenience stores bring their own bags. Another 40.7% of respondents said that they don't use a bag at all when carrying out merchandise. Since the cancellation of the regulation requiring customers to purchase plastic shopping bags from storefront food and beverage shops, the survey shows that approximately 31.1% of the public now carry their own bag, while 13.5% of the public expressed that they never used a bag before or after cancellation of this regulation. This shows that about 45% of patrons at storefront food and beverage shops do not use plastic bags provided by stores.

Progress has been noticeable compared to before the plastics restriction policy came out in 2002. At that time only 18% of people brought their own bags. Despite cancellation of the restriction on plastic bags given out by storefront food and beverage shops, many people are conscientiously minimizing their use of plastic bags. When asked whether they support continued implementation of the restriction on plastic shopping bags, 68.0% of respondents gave a positive response.

As for plastic disposable tableware, 19.9% of respondents expressed that they regularly carry their own eating utensils, while 15.3% indicated that they sometimes bring their own eating utensils. Cross analysis shows a higher ratio of those who bring their own eating utensils are women, people aged 45 to 59, or people with a university or higher level of education. Among those respondents who bring their own eating utensils, most people (96.2%) bring chopsticks, while fewer people (55.2%) bring spoons. Fewer than 30% of individuals in this cohort bring other utensils such as bowls, forks, cups and plates. When asked whether they support continued implementation of current restriction measures on disposable tableware, 86.6% were in favor.

Environmental Policy Monthly Taiwan, R.O.C.

Publisher

Dr. Chang Kow-lung, Minister

Publishing Directors

Chang Tzi-chin; Tung Te-po

Editor-in-Chief

Roam Gwo-dong

行政院新聞局出版登記證局版北市誌字第1611號
中華郵政北台字第6128號執照登記為雜誌交寄

Executive Editors

Y. F. Liang; Chang Shiuan-wu;
Hsiao Lee-kuo; Chang Shao-wen;
Peter Morehead

Editorial and translation support provided by:

Hui-kuo Consulting, Ltd.,
The EPM is available on the EPA website
at [http://www.epa.gov.tw/english/webe-
zA-3/code/main.asp](http://www.epa.gov.tw/english/webe-
zA-3/code/main.asp)

For inquiries or subscriptions to the
printed version, please contact:
Environmental Policy Monthly

Environmental Protection Administration
Office of Science and Technology
Advisors

41, Sec. 1, Jhonghua Rd.,
Taipei, Taiwan, R.O.C.
tel: 886-2-2311-7722, ext. 2207.
fax: 886-2-2311-5486
e-mail: umail@epa.gov.tw

ISSN: 1811-4008
GPN: 2008600068
Contents Copyright 2007.
printed on recycled paper

