

Legco Panel on Environmental Affairs 7<sup>th</sup> December 2017

Dear Hon Members,

"Measures to assist the recycling industry to meet the Mainland's tightened requirements for import recyclables"

Please find our submission herewith.

### What Taiwan is doing right:

(source separation of waste legislation, recycling industry booming, high diversion rates, high penalties for abuse, Govt arranges collection of recyclables from all sources, levies tax on importers and distributors to fund recycling industry expansion)

# versus what Hong Kong pathetic headless chicken Environmental Disaster Department is doing wrong:

(no source separation legislation, Govt apathy on recycling, current 'policy' is to use 80 year old scavengers to collect paper, plastic and metals then sell it to China, EPD's intention to charge for waste without first installing the above measures, recyclables and recyclables tainted with food waste will be burned in the world's most expensive incinerator, 1 kg of MSW burned releases 1 - 1.2 kgs CO2 into the atmosphere that is, until the typhoon Hato II storm surge takes out the incinerator island, no Zero Waste policies in place, no Green Bin collection of food and yard waste, poo-pooing CIWEM UK's policy advice on using garburation and the use of the sewer system to handle all HKG food waste – Stonecutters could handle all the 3,600 tonnes of garburated food waste in literally just a few minutes to take pressure of landfill / methane emissions, failure to use landfill methane effectively eg Liquid Biomethane production by SITA in UK – instead they flare it off here)

Dr Martin Williams will represent Clear the Air at the Panel meeting on 18<sup>th</sup> December 2017.

Yours sincerely,

James Middleton

James Middleton Chairman



From: James Middleton [mailto:dynamco@netvigator.com]

Sent: 20 July, 2017 12:08

To: Clear TheAir <ctawebupdates@gmail.com>; panel ea@legco.gov.hk

Subject: China to WTO: Scrap plastic imports banned by year-end

Clear the Air says: HKG Govt includes materials that arrive here from overseas countries, which are then re-exported to China, as 'LOCAL RECYCLING' In a previous China 'OPERATION GREEN FENCE' many containers of such import/re-export materials got stranded here and the ENB had to drastically republish its 'local recycling rates'

Now we can see 'OPERATION GREEN FENCE 11' = 'OPERATION NATIONAL SWORD 2017 'is imminent

https://resource-recycling.com/plastics/2017/02/15/china-announces-sword-crackdown-illegal-scrap-plastic-imports/

Let's see how this China initiative affects Hong Kong's 'local recycling' rates where the Government relies on 80 year old scavengers as its recycling policy, which is to ship what they gather to China and sell it.

http://www.epd.gov.hk/epd/english/environmentinhk/waste/guide ref/stat wt type.html http://www.epd.gov.hk/epd/english/environmentinhk/waste/guide ref/stat wt cty.html

Hong Kong's apathetic ENB has no PLAN A =source separation of waste and infrastructure to collect same, yet intends PLAN B =to charge for waste, without first enacting PLAN A, meaning recyclables will get tossed and charged for

We hope Christine LOH enjoys reuniting with the clean air of Santa Monica which has such recycling legislation, Green Bin free collection of food waste at kerb-side and a ZERO WASTE POLICY

https://www.smgov.net/Departments/PublicWorks/ContentRecycling.aspx?id=45134

Where is our ZERO WASTE Policy in Hong Kong? well, it's called an incinerator.

https://www.zerowasteeurope.eu/2013/09/the-story-of-capannori-a-zero-waste-champion/

https://www.zerowasteeurope.eu/about/principles-zw-europe/

http://www.cityofsydney.nsw.gov.au/live/waste-and-recycling

 $\underline{http://journals.sagepub.com/doi/abs/10.1177/0734242X09337659?journalCode=wmra}$ 

http://www.prweb.com/releases/2017/05/prweb14358068.htm



# China to WTO: Scrap plastic imports banned by yearend Comments Email Print By STEVE TOLOKEN

http://www.plasticsnews.com/article/20170718/NEWS/170719892/china-to-wto-scrap-plastic-imports-banned-by-year-end

China told the World Trade Organization July 18 that it will ban imports of scrap plastics and other "foreign garbage" by the end of the year, officially taking a step that had been widely rumored in the industry.

The move drew quick criticism from a recycling industry trade group in the United States, the Institute of Scrap Recycling Industries, which said it would be "devastating" to the global recycling industry and cost thousands of U.S. jobs.

ISRI said the ban would include most scrap plastics, including PET, PVC, polyethylene and polystyrene, as well as mixed papers and slag.

China's government said it was taking the action to protect public health and the environment.

"We found that large amounts of dirty wastes or even hazardous wastes are mixed in the solid waste that can be used as raw materials," China's Ministry of Environmental Protection said in a notification to WTO. "This polluted the environment seriously."

"To protect China's environmental interests and people's health, we urgently adjust the imported solid waste list, and forbid the import of solid wastes that are highly polluted," it said.

Washington-based ISRI said the move could cause severe economic harm in the United States.

"If implemented, a ban on scrap imports will result in the loss of tens of thousands of jobs and closure of many recycling businesses throughout the United States," ISRI President Robin Weiner said in a statement.

ISRI immediately relayed its concerns to the U.S. Trade Representative and the U.S. Department of Commerce, and briefed U.S. officials ahead of the July 19 U.S.-China Comprehensive Economic Dialogue in Washington.

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http://cleartheair.org.hk



The association said one-third of the scrap recycled in the United States is exported, with China being the largest market. That includes

1.42 million tons (3.1 billion pounds) of scrap plastics, worth an estimated \$495 million, out of \$5.6 billion in scrap commodities exported from the United States to China last year, it said.

"Recycled materials are key inputs into the production of new, usable commodities for the use in value-add production," ISRI said. "The trade in specification-grade commodities — metals, paper and plastics — between the United States and China is of critical importance to the health and success of the U.S. based recycling industry."

The step had been rumored. ISRI leaders said at a mid-June news conference, after returning from a trip to China, that there were serious rumors of a ban on scrap imports, **starting with plastics**. That echoed earlier comments from Chinese plastics industry officials.

In a related development, a Chinese plastics recycling group said that a month-long crackdown on plastics recyclers that began July 1 had resulted in inspecting 888 factories by July 14. That's about half of the 1,792 factories licensed to import waste plastics.

The China Scrap Plastics Association said in its July 17 announcement that Chinese media were reporting that 590 of those factories were found to have rule violations, with 349 put under investigation for those violations.

It said with 383 factories had their production suspended and 53 were closed, and that factories with violations could have their import permits suspended for one year.

China's WTO filing said the import ban on plastics would apply to products with **HS** codes 3915100000, 3915200000, 3915300000, 3915901000 and 3915909000.

http://www.waste360.com/business/what-operation-green-fence-has-meant-recycling

# Taiwan experiencing recycling industry boom



http://www.recyclingproductnews.com/article/21487/taiwan-experiencing-recycling-industry-boom

### Da Fon leads way with innovative plastics recycling business

September 9, 2015

Da Fon is a leading recycling company based out of Taiwan that creates reusable plastic flakes and granules from consumer waste

In recent years, Taiwan has been experiencing a new kind of boom. Specifically, the number of recycling firms in Taiwan has grown from about 100 in the 1980s and 1990s to more than 1,600 at present, and these firms are busy turning heaps of waste into billions of dollars. According to Taiwan's Industrial Development Bureau of the Ministry of Economic Affairs, recyclers earned US\$2.2 billion in revenue in 2014, up from US\$1 billion a decade ago. In addition, almost every elementary school in Taiwan has now implemented environmental education programs into their curriculums. The result? Most Taiwanese youngsters are now able to tell their parents that 5 PET bottles can make a recycled bag; that 3 PS lunch boxes can be the raw material for a ruler; or even that 1 kilogram of gold can be recycled from 80,000 used computers.

The success of Taiwan's waste reduction and recycling programs has made them a green model for many countries. Out of all Taiwan's main recycling services, however, plastic recycling has drawn the most worldwide attention. For example, Taiwan was able to take great pride in the so-called "eco-fabric" that was used by local companies to make the jerseys for soccer teams competing in the World Cup in both 2010 and 2014.

From football jerseys to wigs to building bricks, plastic recycling in Taiwan is breathing new life into plastic waste, creating a booming new business that is also environmentally friendly. Taiwan started recycling plastic more than a decade ago, as a result of growing environmental concerns, and today it boasts recycling rates of about 73 percent, according to Taiwan's Environmental Protection Administration. In 2014 alone, nearly 180,000 tons of used plastic was collected and turned into raw materials worth US\$140 million.

Da Fon, one of the most innovative recycling companies in Taiwan, has, in fact, become a role model for the industry. From recycling, sorting, processing, shredding, manufacturing,

and even designing, Da Fon provides a one-stop solution as well as an economically and environmentally sustainable alternative to plastics produced from petrochemicals, thanks to its high-quality post-consumer ABS, HIPS, PP, filled PP, and HDPE products.

Over the past 15 years, **Da Fon has established 35 service stations across Taiwan**, as well as a factory to manufacture reprocessed granules, a research and development department, and a resource recycling center. These facilities have enabled Da Fon to transform the plastics industry's traditional supply chain. **What's more, every step in the process is open to the public, to visit or even participate in**. As a matter of fact, the success of Da Fon relies heavily on the involvement of the public. Simply put, **Da Fon believes that all waste is misplaced resources, and most importantly, that public awareness makes recycling possible.** 

Today, Da Fon's recycling stations are no longer just places for people or partner organizations to recycle waste. These recycling stations have, in fact, become educational centers as well as show rooms for products featuring reusable flakes and granules, in addition to products made from reborn raw materials.

In the past, working with discarded goods was not really considered to be a noble calling. However, most of the members of Da Fon's staff are in their 30s, and interestingly enough, they are actually quite proud of themselves. "Collecting junk can be cool," said C.H. Juan, the engineer of Da Fon's Resources Circulation Department.

Thanks to its many advances, Da Fon is now able to export both its experience and plastics to the rest of the world. Da Fon is also able to give its clients the certainty that their plastics are always handled in compliance with legitimate standards and legislation. Specifically, Da Fon's reprocessed granules have been certified by the SGS Carbon Footprint Verified Certificate, the TUV Recycled Material Verified Certificate, the Plastic Industry Development Center (PIDC) Post-Consumer-Recycled (PCR) Plastics Verified Certificate, and most important of all, the EuCertPlas Certificate, which works in conjunction with Germany's Blue Angel program and allows the Blue Angel label to be applied to certain applications and products.

An environmentally sustainable alternative to plastics produced from petrochemicals, Da Fon produces high-quality post-consumer ABS, HIPS, PP, filled PP, and HDPE products.

### Da Fon Environmental Technology Co., Ltd.

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# Major advances towards Taiwan's recycling goals

recyclinginternational.com/recycling-news/7623/research-and-legislation/east-asia/major-advances-towards-taiwan-039-s-recycling-goals

January 16, 2014 by Editorial Staff

East Asia: Taiwan is transforming itself into one of the world's recycling leaders, according to Chang Tzichin, deputy minister at the nation's Environment Protection Administration (EPA).

Thanks to Taiwan's compulsory waste separation by category and pay-as-you-go refuse bags, waste volumes have fallen from a peak of 1.14 kg per person per day in 1998 to 397 grams in 2012. 'Meanwhile, the recycling rate has risen from 5% to over 54% over the same period,' Tzi-chin points out.

In Taiwan, municipal solid waste management policies centre on the extended producer responsibility concept. The country's 'signature' 4-in-1 Recycling Programme spans community residents, recycling industries, local authorities and the so-called Recycling Fund. An estimated 3500 communities and 4000 schools are participating in the programme.



The Recycling Fund is 'the most important aspect' of the programme, according to Environmental Protection Administration Taiwan (EPAT), because it currently collects around US\$ 23 million per year from manufacturers and importers. The money is used to subsidise private collectors and recycling enterprises that meet stringent EPAT standards.

The fund has 'greatly advanced' recycling in Taiwan, the EPA notes. For example, more than 1300 recycling vehicles have been purchased for municipalities since 1998 so that collection of recyclables can be carried out more than twice a week. It has also financed 273 storage facilities for 326 municipal collection squads since 1998.

In a bid for further progress, Taiwan combined its Waste Disposal Act and Resource Recycling Act last summer in a single piece of legislation, the Resource Reuse and Recycling Act. The 'ultimate goal' is to make zero waste through total recycling a reality, says the EPA.

For more information, visit: www.epa.gov.tw/en

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# Recycling Regulations in Taiwan and the 4-in-1 Recycling Program

Countries around the world have developed policies that aim to reduce municipal solid waste (MSW) and enhance recycling. In Taiwan, MSW management policies are centered on an "extended producer responsibility" (EPR) concept that requires manufacturers and importers of new products to fund recycling. EPR was first established in Taiwan when the Waste Disposal Act was amended in 1988. Since then, new regulations and systems, including Taiwan's signature "4-in-1 Recycling Program," have been implemented. This handout provides an overview of the evolution of recycling policies in Taiwan.

### **Recycling Regulations in Taiwan**

Three amendments to the Waste Disposal Act (WDA) make up the foundation of the recycling system in Taiwan:

- 1. In 1988, Article 10-1 of the WDA required for the first time in Taiwan that manufacturers and importers bear financial responsibility for recycling by forming associations to fund recycling.
- 2. In July 1997 the requirement changed with another amendment to the WDA that established the 4-in-1 Recycling Program. Instead of forming associations to fund recycling, manufacturers and importers now had to pay a recycling fee to Environmental Protection Administration Taiwan (EPAT) and offer collection of waste for recycling from consumers. The fees would feed into the Recycling Fund, which subsidizes collection and recycling by licensed enterprises and is the key element of the 4-in-1 Recycling Program. The Fund's establishment marked a milestone in the history of Taiwan's recycling regulations. This amendment also led EPAT to create the Recycling Fund Management Board (RFMB) to operate the Recycling Fund.
- 3. In 2001, the Waste Disposal Act was revised again, expanding regulations under Article 10-1 to clarify responsibilities of manufacturers, importers and recyclers under the 4-in-1 Program.

### **Handout 1**

The provisions of key Articles of the WDA are summarized below.

### 1. Article 5 of the Waste Disposal Act

Recyclable wastes generated by households and small businesses must be collected for recycling by municipal collection teams. Regulated recyclable waste (RRW) is defined to include 13 categories and 33 items such as metal containers, aluminum containers, glass containers, and plastic containers. The recycling of RRW is eligible for subsidy from EPAT's Recycling Fund. The full list of RRW is given in Chart 1; categories 11, 12 and 13 define waste electric and electronic equipment (WEEE) in Taiwan. In addition, Article 5 enables EPAT to require local environmental protection bureaus (EPBs) to collect certain items including waste paper, CDs, cell phones and chargers for recycling, although those items are not classified as RRW and their recycling is not eligible for subsidy.

Chart 1: Regulated Recyclable Waste Under the 4-in-1 Recycling System

	1.	waste metal containers(1998)			
	2.	waste aluminum containers (1998)			
	3.	waste glass containers(1998)			
Containers	4.	(1) waste tetra pak brand containers, paper containers(1998)	(2) waste paper tableware(1998)		
	5.	waste plastic containers			
		(1)Polyethylene Terephthalate,PET (1998)	(2)Polyvinylchloride,PVC (1998)		
		(3)Polyethylene,PE (1998)	(4)Polypropylene,PP (1998)		
		(5)Polystyrene,PSfoam(1998)	(6)Polystyrene,PS non-foam(1998)		
		(7)other plastics(1998)	(8)bio-plastics(2010)		
	6.	waste containers of pesticides(1998)			
	7.	waste batteries(1998)			
	8.	waste automobiles/motorcycles(1998)			
	9.	waste tires(1998)			
	10.	waste lead-acid batteries(1998)			
	11.	waste computer appliances			
		(1)waste laptops(1998)	(2)waste shells(1998)		
		(3)waste motherboards (1998)	(4)waste monitors(1998)		
Materials		(5)waste hard-disks (1998)	(6)waste printers(2001)		
		(7)waste power packs (1998)	(8)waste keyboards (2007)		
S	12.	waste electrical appliances			
		(1)waste televisions (1998)	(2)waste washing machines(1998)		
		(3)waste refrigerators (1998)	(4)waste air-conditioners (1998)		
		(5)waste fans(2007)			
	13.	waste light bulbs/tubes(2002)			

The first year of regulation is indicated in parentheses for each waste item.

### 2. Article 15 of the Waste Disposal Act

Manufacturers and importers of new RRW products and their packaging and containers, as well as certain raw materials, shall bear responsibility for collecting these materials for products when they reach their end-of-life. Collection points for RRW items are required at certain retail locations, like supermarkets and convenience stores.

### 3. Article 16 of the Waste Disposal Act

The manufacturers and importers described in Article 15 shall register with EPAT and pay recycling fees based on the quantities of new RRW products put on the market. The fee rates are set by EPAT and recycling fees are deposited by the Recycling Management Fund into commissioned banks. Fees paid by manufacturers on items that are exported can be reimbursed by EPAT. EPAT shall establish a Recycling Rate Review Committee (RRRC) to review fee rates based on RRW component materials, per unit weight or volume of RRW, annual cost of municipal RRW collection, the value of recycled or reused RRW products, cost of private collection, recycling and disposal (of non-recyclable components), collection and recycling rates (verified through auditing), auditing and verification costs, the financial condition of the Recycling Fund, and other relevant factors.

### 4. Article 17 of the Waste Disposal Act

The Recycling Management Fund shall be used for the following purposes: (1) subsidizing licensed RRW collectors and recyclers; (2) the provision of grants and awards for collection and recycling systems; (3) funding municipal RRW collection; (4) funding auditing of subsidized collectors and recyclers; (5) other uses related to general RRW recycling approved by EPAT.

### 5. Article 18 of the Waste Disposal Act

EPAT shall issue standards for the operations and facilities for the collection, transportation, and recycling of RRW. The Auditing and Certification Groups (ACGs)<sup>1</sup> commissioned by EPAT shall monitor whether subsidized enterprises are in compliance with these standards and certify the volume of collected and recycled RRW to ensure the accuracy of subsidy payments. Collectors and recyclers of a certain scale or larger shall register with local environmental protection bureaus (EPB) and report collection or recycling volumes to the EPBs. Collectors and recyclers may apply to the Recycling

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<sup>&</sup>lt;sup>1</sup> It should be noted that the ACGs do not confer any "certification" to subsidized recyclers as the R2 and E-Stewards programs do in the United States. Instead, the ACGs verify that subsidized enterprises are in compliance with their regulatory requirements and that they receive subsidy amounts corresponding to the amount of material recycled according to EPAT's standards.

Fund for subsidies based on these certified volumes. Some enterprises, like WEEE collectors, may not be eligible for subsidy, but must still be licensed to operate by their local EPBs.

### 6. Article 19 of the Waste Disposal Act

At the time of production or import, manufacturers and importers shall mark new RRW products with EPAT's standard recycling logo. Manufacturers, importers and retailers designated in Article 15 shall install collection facilities and take back RRW products at their end of life.

### 7. Article 20 of the Waste Disposal Act

EPAT may dispatch personnel or credentialed professionals to enter the facilities of retailers, manufacturers and importers, and RRW collection, storage, transportation and recycling operations. EPAT may also request relevant information from such enterprises. For manufacturers and importers, EPAT may inspect sales or import volumes of new RRW products, distributors and retailers of new RRW products, and raw material suppliers to ensure proper application of recycling labels. For subsidized collectors or recyclers, EPAT may inspect collection and recycling volumes of RRW. When necessary, EPAT may obtain tax records for further inspection.

# The 4-in-1 Recycling Program

Before January1997, although the Waste Disposal Act had required manufacturers and importers to recycle RRW, the collection channels were not coordinated, so the collection rate was low. Furthermore, manufacturers and importers did not invest in recycling facilities installation due to underdeveloped regulations and incentives. In1997, EPAT created the "4-in-1 Recycling Program" to better connect all parties involved in RRW collection channels, including community residents, recyclers and collectors, local governments, and the newly established Recycling Fund. Through the incentives associated with the Fund, the 4-in-1 Recycling Program has increased recycling rates and reduced the amount of solid waste sent for disposal. The structure of the 4-in-1 Recycling Program is illustrated in Figure 1.



Figure 1 4-in-1 Recycling Program

### 1. Components of the 4-in-1 Recycling Program

### (1) Community Residents

Community residents make up the foundation of the 4-in-1 Recycling Program. Residents who deposit their waste at local collection points serviced by municipal collection teams must separate their recyclable, non-recyclable, and organic wastes.

In addition to community residents, there are many citizen groups such as Tsu-Chi Foundation (a Buddhist organization), Homemakers United Foundation, and Conservation Mothers Foundation that work to increase recycling in communities and schools. These groups conduct recycling education programs, collect RRW for donation and reuse, and collect RRW for sale to recyclers.

As of 2011, there were a total of 3,200 communities and 3,500 schools carrying out recycling. Through requirements and voluntary actions, RRW collection points have been installed in public places such as national parks, scenic spots, public transportation stations, as well as chain stores and supermarkets. These expanded collection channels make it convenient for citizens to send RRW for collection and recycling.

### (2) Recycling Industries

Private recyclers and collectors buy waste materials, including WEEE, from residents, communities, commercial enterprises and others in order to recover commodities from these wastes and generate revenue in the process.

### (3) Local Authorities

Municipalities and local governments organize municipal collection teams to collect RRW and other wastes from community collection sites. They sell RRW and other MSW of value to private recyclers and give a portion of the income back to the local government in order to fund grants for community waste collection sites.

### (4) Recycling Fund

The Recycling Fund is the most important aspect of the 4-in-1 Recycling Program because it subsidizes municipal RRW collection as well as private collectors and recyclers who meet EPAT's environmental and safety standards. Under the 4-in-1 Recycling Program, manufacturers and importers of new RRW products, including electrical and electronic equipment, are required to pay fees to EPAT depending on the quantity of items they put on the market. These fees feed into the Recycling Fund, which is managed by RFMB.

Currently the recycling fund collects NT\$7,000,000,000 (NT\$7 Billion) per year from manufacturers and importers, which is distributed to trust funds and special income funds. The trust funds are used to subsidize private collectors and recycling enterprises that meet EPAT standards. Special income funds are dedicated to education, research and development, auditing, grants for

municipalities and citizen groups, and administration of the 4-in-1 Recycling Program. The Recycling Fund has greatly advanced recycling in Taiwan. For example, money from the nonprofit fund been used to purchase more than 1,300 recycling vehicles for municipalities since 1998 so that collection of recyclables can be carried out more than twice per week. Money from the special income fund has also financed 273 storage facilities for 326 municipal collection squads since 1998.

### 2. Management Structure

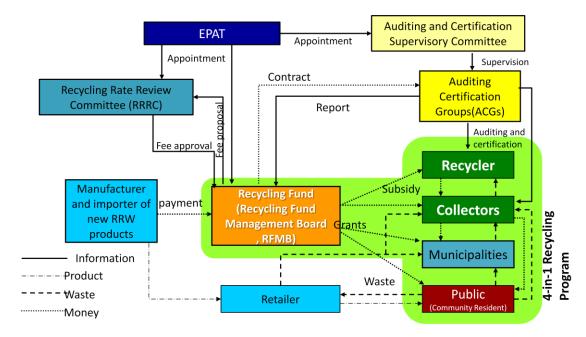


Figure 2 Management Structure of the 4-in-1 Recycling Program

### 3. Online Reporting Tools

Under the 4-in-1 Recycling Program, online reporting systems are available for manufacturers and importers, recyclers, collectors, auditing and certification groups, and local EPBs.

# 4.1 The 4-in-1 Recycling Program

recycle.epa.gov.tw/recycle/en/NAV04Content.htm

### **Recycling System**

The 4-in-1 recycling program promoted by the EPA since January 1997 is a system that uses recycling, clearance and disposal fees collected from manufacturers and importers to establish a Recycling Fund, which is then used to subsidize the recycling disposal system and extend the responsibility of these enterprises. This system provides adequate economic incentives to encourage the development of recycling and reuse industries and to create output value and employment opportunities. This specially designed feedback mechanism makes local cleaning teams and people from the community even more involved in recycling work. And, the ultimate beneficiaries are the people living on this land.

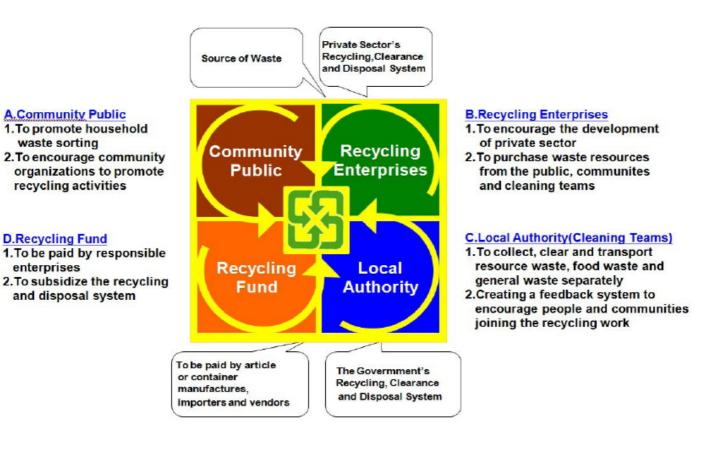
Recycling Fund: Based on the principle of "Extended Producer Responsibility (EPR)? this fund was defined that recycling, clearance and disposal work is the responsibility of the manufacturers, importers and vendors. These responsible enterprises shall pay for the recycling, clearance and disposal fees, and subsidize recycling and recycling enterprises and local governments to deal with the recycling, clearing and reprocessing work. With the guarding of Fee Rate Review Committee and the audit and certification system, it is ensured that every recyclable item will be adequately recycled and disposed of .Recycling fund is the key that has made this project successful.

Local Authority (Cleaning Teams): Local authority shall collect and dispose of resource materials and general wastes separately, where the implementation methods are decided and stipulated by local authority respectively. The income of selling resource materials for those collected from people or by local cleaning teams, will be feedback to the people and workers who participated at a certain ratio.

Recycling Enterprises: To encourage the private sector to join the recycling work, recycling enterprises purchase waste resources from the public, communities, groups and cleaning teams at market price. In order to avoid recycling and disposal enterprises creating any pollution during the recycling or disposing process of regulated recyclable wastes, the "Management Regulations Governing Responsible Enterprises for Regulated Recyclable Waste?and "Methods and Facilities Standards for the Recycling, Storage, Clearance and Disposal of Regulated Recyclable Waste?were enacted as ordinances for recycling enterprises to implement the recycling work.

Community Public: To promote household waste sorting through recycling organizations established by community public. That is, to separate recyclable resources like bottles, cans, containers, paper and waste mercury batteries from other household wastes and sort them in individual categories. These resource materials and wastes are collected separately at recycling points or by cleaning teams and private recycling enterprises; after being collected, these resources will then be reused. Moreover, by subsidizing private groups, holding different kinds of recycling promotion activities with the private sector, and inspecting the status of these activities randomly, the purpose of propagating the recycling work was achieved.

Combining these four strengths, a complete recycling network was established to ensure that resource materials will be recycled, reused or disposed of properly; and the participating people, cleaning teams and recycling enterprises will obtain reasonable profits or rewards, having this feedback system encouraged a nationwide participation. The 4-in-1 recycling program diagram is shown below:



A Diagram of the 4-in-1 Recycling Program

### 4.2 Fund Revenue, Expenditure, Safekeeping and Utilization

#### Α. The Mechanism of Stipulating Levy Rate and Subsidy Rate

The recycling, clearance and disposal fee and subsidy rate are the keys to the success of the resource recycling system, which also make a direct impact on enterprises?costs and competitiveness. The Fee Rate Review Committee is formed by representatives from industries and commercial circles, environmental protection groups, consumer protection groups, scholars and specialists, and government agencies all selected and hired by the head of EPA. Its mission include: Stipulating and calculating levy and subsidy rates for regulated recycling, clearable and disposal articles or their packaging and containers; adjusting topics to be deliberated; and deliberating some other details regarding the levy and subsidy rates.

#### B. Levying the Recycling Fund

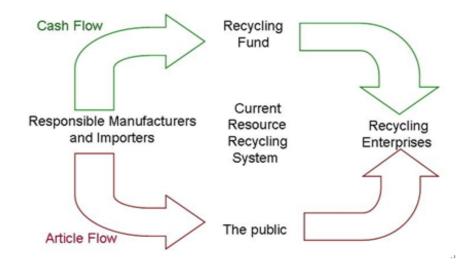
waste sorting

D.Recycling Fund

enterprises

According to Article 16 of the Waste Disposal Act, EPA will charge recycling, clearance and disposal fees to designated responsible enterprises as announced publicly; a resource recycling management fund will also be established and will be used in promoting recycling work.

The recycling, clearance and disposal fee paid by responsible enterprises is the fundamental revenue of the current recycling system. Below is a simplified diagram of their relations:



Officially Announced Recyclable Wastes ?The Article and Cash Flows

### C. Issuing the Subsidy

According to Article 17 of the Waste Disposal Act, the resource recycling fund shall be used in paying the recycling, clearance and disposal subsidy. Article 18 also stipulates that waste recycling and disposal industries can apply subsidies from the Resource Recycling Fund. If one's application corresponds to regulated facilities standards and operation regulations, the subsidy will then be issued upon approval

### D. Entrusting Financial Organizations for Fund Revenue, Expenditure and Safekeeping

According to Article 11 of Partial Revenues, Expenditures, Safekeeping, and Utilization Regulations of Resource Recycling Fund (Trust Fund), the Fund Management Committee shall open an account in designated financial institution as stated in public announcement, in which the responsible enterprises shall submit their recycling, clearance and disposal fees.

### E. Utilization of the Recycling Fund ?Special Purpose Funds for Earmarked Tax

Upholding "the polluter pays?spirit, the recycling, clearance and disposal fee is an earmarked tax that the levied amount shall be applied based on the "special purpose funds for a specific designated purpose?principle. The resource recycling fund can be categorized as a trust fund and a non-operating fund. The trust fund is used to disburse subsidies for waste recycling and disposal industries; non-operating fund, on the other hand, is used to maintain the operation of recycling fund and subsidize and reward communities and local government for promoting the recycling work.

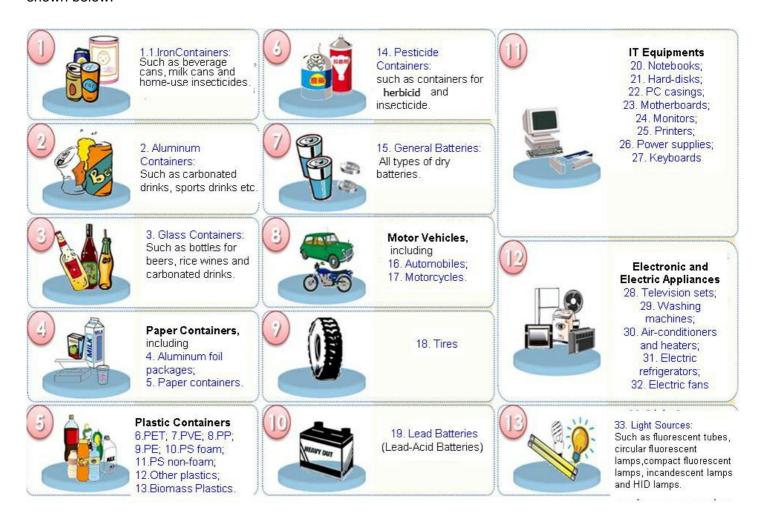
### 4.3 Management of Responsible Enterprises

Enterprises responsible for recycling, clearance and disposal as designated in the public announcement are manufacturers and importers of recyclable containers and articles (thereinafter referred as "Responsible Enterprises?, who shall register themselves with EPA as responsible enterprises. Within 15 days after paying periodic sales tax, responsible enterprises shall declare their business or import volume and, based their reported volume and the publicly announced rates, pay the recycling, clearance and disposal fees as the resource recycling fund.

The competent authority can check the business, recycling and disposal volumes of responsible enterprises, and request for further related information; in case of any necessity, it is a must to request competent tax authorities? assistance in audit.

Based on the principle of "reporting it honestly, paying it proactively? the resource recycling fund shall be paid by responsible enterprises spontaneously. To have responsible enterprises reported the real volumes and to prevent having any omitted or under-reported volume, EPA has adopted the "subsequent review?method to examine responsible enterprises?real volumes.

There are totally 13 categories and 33 items of regulated recyclable wastes at the end of 2014. Details are as shown below:



The Regulated Recyclable Wastes in 33 Items of 13 Categories

Among different types of resource recycling work, enterprises shall comply with the laws to fulfill their responsibilities as shown in the table below

An Overview of Responsible Enterprises and Their Responsibilities

Enterprise Categories	Application of Registration	Reporting the Business Volume/(Import Volume)	Disbursing the Fees	Recycling Symbols
-----------------------	-----------------------------	---	---------------------	----------------------

Container Product Man Importers	ufacturers /	0	©	0	0
Container Manufacturers	s / Importers	0	0	_	_
Flat Container Manufacture	ers / Importers	0	0	0	0
Non-Flat and Disposable Manufacturers / Im		0	©	0	0
Dry Battery Manufa	cturers	0	0	0	0
Dry Battery Impo	rters	0	0	0	0
Article Importe	ers	0	0	0	-
Article Manufactu	urers	0	0	0	_
Commissioned Manu	facturers	0	0	_	_
Raw materials of Biomass	Manufacturers	0	0	0	_
Plastics	Importers	0	0	0	_
Sheets of Making Biomass	Manufacturers	0	0	_	_
Plastic Flat Containers	Importers	0	0	0	_
Biomass Plastic Flat	Manufacturers	0	0	_	0
Containers	Importers	0	0	0	0
Non-Flat Disposable	Manufacturers	0	0	_	0
Biomass Plastic Tableware	Importers	0	0	0	0
Biomass Plastic	Manufacturers	0	0	_	0
Containers	Importers	0	0	0	0
Biomass Plastic Container	Manufacturers	-	-	_	-
Products	Importers	0	0	0	0

Remarks: 

To be followed in accordance with the law.

### 4.4 Management of the Vendors

In order to facilitate the public recycle articles and containers, EPA has successively made public announcements regarding enterprises who shall install resource recycling facilities since 1997. At the moment, there are 14 categories of vendors who shall provide recycling services, including hypermarkets, supermarkets, convenience chain stores, retail chains of cleaning and cosmetic products, convenience stores in transport terminals and stations, gas stations, packaged beverage vendors at gas station, wireless communication device retailers, photographic equipment retailers, beverage vendor machines, beverage chain stores, fast food chain restaurants, light source vendors, and electronic and electric appliance vendors.

# Vendor Categories, Regulated Recyclable Waste, and Resource Recycling Facilities

Vendor Categories	Regulated Recyclable Waste	Resource Recycling Facilities	
Hypermarkets	Waste containers, waste dry batteries	Recycling point signage, waste container recycling bins, waste battery recycling bins	
Supermarkets			
Convenience Chain Stores			
Retail Chains of Cleaning and Cosmetic Products			
Convenience Stores in Transport Terminals and Stations			
Gas Stations	Waste lubricant containers	Recycling point signage, waste lubricant recycling bins,	
Packaged Beverage Vendors at Gas Station	Waste containers	Recycling point signage, waste container recycling bins	
Wireless Communication Device Retailers	Waste dry batteries	Recycling point signage, waste battery recycling bins	
Photographic Equipment Retailers	Waste dry batteries		
Beverage Chain Stores	Waste disposable drink cups	Recycling point signage, waste disposable drink cup recycling bins	
Beverage Vendor Machines	Waste containers	Recycling point signage, waste container recycling bins	
Fast Food Chain Restaurants	Resource waste (at least include cups, bowls, trays, plates, lunch boxes, lunch box partitions and shopping paper bags, or some other recyclable resource wastes recognized by fast food chain	Recycling bins	
Light Source Vendors	Waste light sources	Waste light source recycling facilities	
Electronic and Electric Appliance Vendors	Waste electronic and electric appliances (televisions, refigerators, washing machines, air-conditioners and heaters)	Recycling point signage	







Recycling Point Signage

Waste Container Recycling Bins

Dry Battery Recycling Bins

According to Article 20 of the Waste Disposal Act, the competent authority shall dispatch personnel or commissioned professionals to responsible enterprises for field audit. The audit key points are recycling point signage, resource recycling facilities and specifications, storage of recycled goods and recycling and clearance status. In case responsible enterprises are against related regulations, a fine between NT\$60,000 and NT\$300,000 shall be imposed; if the violation continues after the end of the designated time period, then continuous daily fines shall be imposed.

### 4.5 Management of Recycling and Disposal Enterprises

Recycling and disposal enterprises are the backbone of the 4-in-1 recycling program. In order to have resources effectively recycled and recirculated, and to fully bring the vigorous energy of the private sector into play, EPA has stipulated the registration, reporting and audit systems, introduced the audit and certification system, established the foundation of environmental management and pollution control for enterprises, and provided technical consultancy and financial support to build up a complete recycling and disposal industry.

### 1. Registration of the Enterprise Size is a Must

The regulated recyclable waste disposal industry and the waste vehicle recycling and dismantling industry shall both be registered. The recycling enterprises of regulated recyclable waste shall also be registered if the area of recycling and storage exceeds 1,000 square meters.

### 2. Registration

Recycling and disposal enterprises that require a registration shall prepare documents stated in the Management Regulations Governing Recycling and Disposal Enterprises for Regulated Recyclable Waste and submit the on-line registration application to the competent authority before the operation. The registration validity is 5 years; in case responsible enterprises wish to continue the operation, it is a must to extend their registrations.

### 3. Reporting the Operating Records

Every January, April, July and October, recycling and disposal enterprises who have obtained the registration certificate shall, based on the Management Regulations Governing Recycling and Disposal Enterprises for Regulated Recyclable Waste, report their operating records to local environmental protection institutions online

before the 15th of that month.

4. Complying with Methods and Facilities Standards for the Recycling, Storage, Clearance and Disposal of Waste

Registered or not, responsible enterprises shall comply with Methods and Facilities Standards for the Recycling, Storage, Clearance and Disposal of Regulated Recyclable Waste. If the recycling and disposal enterprise is against relevant regulations, a fine between NT\$60,000 and NT\$300,000 shall be imposed.

### 5. Accepting Competent Authority; s Audit

Recycling and disposal enterprises must accept the audit of the competent authority to ensure all the processes correspond to Methods and Facilities Standards for the Recycling, Storage, Clearance and Disposal of Regulated Recyclabe Waste.

### 6. Application of Becoming a Subsidized Organization

Recycling and disposal enterprises who wish to apply recycling subsidy shall, in accordance with the Management Regulations for the Review of Applications for Regulated Recyclable Waste Recycling, Clearance, and Disposal Subsidies, prepare the relevant document and data to apply for becoming a subsidized organization.

The recycling volume of regulated recyclable waste of subsidized organizations shall be audited and certified by the EPA commissioned audit and certification groups in accordance with the Regulated Recyclable Waste Audit and Certification Regulations first, then the recycling, clearance and disposal subsidy will be issued by EPA accordingly.

### 4.6 Audit and Certification, and Supervision Relevant Operations of Audit and Certification Groups

### A. The Purpose of Audit and Certification

In March 1997, in order to assure the correctness of recycling and disposal volume, EPA established the Audit and Certification Justice Group Selection Committee to select audit and certification justice groups (hereinafter referred to as ¡§audit and certification groups; ") to handle the audit and certification work. After the evaluation, the audit and certification groups shall provide an audit and certification operation manual to EPA, and, upon receipt of EPA¡|s approval, implement audit and certification operations in accordance with regulations stated on the manual.

On the amendment of Waste Disposal Act published on 24 December, 2001, Article 18 Paragraph 2 authorized EPA to stipulate regulations governing the audit and certification operations. On the 9 October, 2002, EPA announced the Regulations Governing the Regulated Recyclable Waste Audit and Certification Operations, which defined the content of audit and certification work, and the authority and responsibility of audit and certification groups. Since then, EPA formulates the audit and certification operation manual.

To ensure audit and certification groups follow the instructions stated in the operation manual, EPA established the Audit and Certification Supervisory Committee to audit and evaluate the operation of audit and certification groups, where the evaluation result will also be taken into account of EPA<sub>i</sub>'s selection of these audit and certification groups.

### B. Audit and Certification Operations

The audit and certification operations are the audit and operation work implemented by audit and certification

groups in subsidized organizations. It includes the quantity audit, accounting audit, operating audit and environmental audit to ensure the correctness of issued subsidy and lower the audit and certification operation risks:

- 1. Quantity Audit: To inspect the recycling and disposal volume of regulated recyclable waste or the output volume of renewable resources that can be applied for the recycling, clearance and disposal subsidy.
- 2. Accounting Audit:
- (1) Subsidized organizations shall have at least one accounting audit every half year. The audit content includes operating procedures, staff organization, operation content, audit key points, operation schedule and predicted benefits etc.
- (2) The accounting audit report content shall include at least the audit results of subsidized organizations it inventory, certificate and account book.
- 3. Operating Audit:
- (1) Audit of the recycling, dismantling, sorting, sample analysis, waste storage and clearance operations.
- (2) Based on a waste<sub>i</sub>'s category, inspecting its recycling, storage, clearance and disposal methods, and facilities standards.
- 4. Environment Audit:
- (1) An environmental audit of subsidized organizations.
- (2) Audits of subsidized organizations; labor safety and sanitation.

Others: Management of different types of certificates, performance reports, audit and certification analysis reports, and amendments of audit and certification manual.

### C. Audit and Certification Groups Supervision Operations

To supervise audit and certification groups to ensure they have properly implemented the audit and certification work and to ensure their work quality is in accordance with regulations stated in Article 18 of the Waste Disposal Act, EPA shall also establish an Audit and Certification Groups Supervisory Committee to evaluate and assess the audit and certification groups in accordance with regulations stated in Article 4 of the Regulated Recyclable Waste Audit and Certification Regulations. The fifteen supervising commissioners, who come from the society, scholars, specialists and representatives of government agencies in the domains of environmental protection or consumer protection, are selected and hired by EPA. The tenure of the commissioners is two years.

Supervising commissioners shall implement the supervision of audit and evaluation work in accordance with the stipulated supervising project. The supervising methods include evaluations and random audits.

Deficiencies identified by the supervisory committee during the evaluation process shall be forwarded to audit and certification groups to fill out the improvement of deficiencies. The improvement status of previously mentioned deficiencies shall also be forwarded to the Fund Management Board to confirm its completion status. Moreover, the evaluation score made by supervisory commissioners shall also be included in the performance report of audit and evaluation as a reference data for audit and certification groups.

### 4.7 The Implementation Methods and Subsidies of Enforcement Authority

### A. Waste Sorting Methods

The public shall sort wastes in three categories: Resource waste, food waste and general waste. Descriptions are shown below:

- 1. Resource Waste: Refers to general waste recycling items mentioned in Article 5 Paragraph 6 of the Waste Disposal Act, and regulated recyclable articles or their packaging and containers that become general wastes after consumption or use as stated in Article 15 Paragraph 2 of the Waste Disposal Act. It includes papers, metals, aluminums, glass, plastics (excluding plastic bags) (Polyethylene terephthalate, PET; Polyethylene, PE; Polyvinyl chloride, PVC; Polypropylene, PP; Polystyrene, PS), dry batteries, motor vehicles (including automobiles and motorcycles), tires, lead-acid batteries, electronic and electric appliances (televisions, washing machines, refrigerators, air-conditioners and heaters, electric fans), IT equipments (computers and accessories), waste light sources (fluorescent tubes, circular fluorescent lamps, self-ballast fluorescent light bulbs, compact fluorescent lamps, incandescent bulbs with a diameter of more than 2.6cm and high intensity discharge, HID), disks, portable phones and its chargers (including charging dock and portable charger).
- 2. Food Waste: Refers to raw or cooked foodstuffs and their residues or organic waste, which have been announced by the competent authority as a general waste.
- 3. General Waste: Refers to general waste other than ¡§resource waste;" and ¡§food waste;", which cannot be recycled.

### B. The Resource Recycling Day

EPA had proactively promoted the ¡§Keep Trash Off the Ground;" policy in the mid-1990s and, since 1996, started to promote the Resource Recycling Day. Apart from cooperating with the EPA policies, county or city enforcement authorities also promote regional recycling policies. For example, Taipei City started to promote the waste sorting and collection activity since 1991, where cleaning teams collect incombustible waste on Monday and combustible waste on other day . The weekly ¡§3 resource recycling days;" activity was then promoted in 2000 and the weekly recycling days were increased to 5 days in 2003. In the meantime, local competent authorities attempted to decrease waste trucks; clearing and transporting days step by step in order to lower the waste clearance volume.

### C. Subsidy Focus

With an expectation of protecting environment and sustainably using resources, EPA has subsidized local competent authorities to promote resource recycling work such as the ¡§Resource Recycling Project¡" that subsidizes general administrative costs; ¡§Replacing the Old Recycling Trucks Project¡" that local government can eliminate the old recycling trucks with new ones; the ¡§Employment Promotion Project¡" that assists local government to have sufficient recycling manpower in order to maintain the operation of an entire recycling system.

### 4.8 Educational Propagation

Spreading the idea of recycling through the whole country will be held in three ways: appropriate activities, timely media and excellent education. The Resource Recycling Fund Management strives to inculcate the idea of the valuable of the work of recycling in Taiwan in the ways outlined below.

- A. Types of Propagation Activities
- National Green Creativity Expo
- Resource Recycling Rap Show
- 3. National Resource Recycling Writing Contest
- 4. Resource Recycling Debate Contest
- 5. National Green Representation Design Contest
- 6. National Green Creativity Series Competitions for Resource Recycling
- 7. Collection of Resource Recycling Theme Songs
- B. Dissemination Media
- 1. Resource recycling hotline (0800-085-717)
- 2. Resource recycling website (http://recycle.epa.gov.tw)
- 3. Resource recycling monthly periodical
- 4. E-News
- 5. Video
- 6. Direct Messages
- 7. Television, network and broadcasting media
- C. Resource Recycling Education for Schools and Communities

Since 1998, EPA has proactively promoted waste reduction and resource recycling work by offering subsidies and rewards, or relying on the strengths from private sectors such as Tzu Chi, Homemakers United Foundation and Conservation Mothers Foundation to expand recycling channels in communities and schools. Up to the end of December 2014, there were 5,893 communities and 3,650 schools which had participated in resource recycling. The installations of resource recycling facilities in public places such as national parks, scenic areas and important transportation points were also promoted.

Also, through recycling organizations established through community level initiatives, the concept of sorting household waste was spread widely, so that bottles, cans, containers, papers and batteries are now separated from other household wastes and sorted in different categories. These recyclable materials separated from general waste are then collected at recycling points or by cleaning teams and private recycling enterprises separately. By recycling and reusing these resources effectively, the government has managed to enhance people; s knowledge and awareness of resource recycling.

# **Resource Recycling Act**

Original 31 articles promulgated by presidential order Hwa-Tsung-Yi-Tzu No. 09100133700 on July 3, 2002. Revisions to Article 6 promulgated by presidential order Hwa-Tsung-Yi-Tzu No. 09800010901 on January 21, 2009.

### **Chapter 1 General Principles**

#### Article 1

This Act is formulated to conserve natural resources, reduce waste, promote recycling and reuse of materials, mitigate environmental loading, and build a society in which resources are used in a sustainable manner. The regulations of other laws shall apply to those matters not regulated by this Act.

#### **Article 2**

The terms used in this Act are defined as follows.

- I. "Renewable resources" means substances that have lost their original usefulness, are economically and technologically feasible to recycle, and may be recycled or reused as announced or approved by this Act.
- II. "Recycling and reuse" means the act of reusing or recycling renewable resources.
- III. "Reuse" means the act of making direct, repeated use of renewable resources in their original form or using renewable resources after restoring some or all of their original functionality.
- IV. "Recycling" means the act of making renewable resources functional by altering the original form of substances, or combining them with other substances, so that they may serve as materials, fuel, fertilizers, animal feed, fillers, soil enhancers, or for other uses recognized by the central industry competent authority.
- V. "Enterprise" means companies, proprietorships, organizations, non-corporate bodies and other entities as designated by the central competent authority engaged in production, manufacturing, transportation, selling, education, research, training, engineering and construction or service activities.
- VI. "Recycled product" means a product made using at least a certain proportion of renewable resources as raw materials.

#### Article 3

The term "competent authority" in this Act means the Environmental Protection Administration, Executive Yuan, at the central government level, the municipal government in special municipalities and the county or city government in counties or cities.

#### Article 4

The competent authority shall designate a dedicated unit or personnel to formulate renewable resource recycling and reuse policies, and perform relevant auditing, public awareness, training, guidance, evaluation and research matters. When necessary, the competent authority may assign or commission a relevant agency or organization to perform such tasks.

The industry competent authority may, as required, designate a dedicated unit or personnel to perform the tasks in the foregoing paragraph, and, when necessary, may commission a relevant agency or organization to perform such tasks.

### Article 5

The central competent authority shall establish a Renewable Resource Recycling and Reuse Promotion Committee (herein referred to as "the Committee") that shall be responsible for the review of major policies and measures on the recycling and reuse of renewable resources as drafted by the competent authority and industry competent authority and the coordination and assessment of implementation and operational matters as related to items officially announced and designated in each article of the Source Management Chapter of this Act.

The Committee shall have one chairman; which shall be the Administrator of the Environmental Protection Administration. Committee members shall be appointed for a period of two years, and shall consist of relevant government agency representatives, scholars, experts and environmental protection group representatives. Scholars, experts and environmental protection group representatives may not constitute less than one-half of the total number of committee members. Committee members, their spouses, and their direct blood relatives shall avoid implementation and operational duties in the renewable resource recycling and reuse industries under review by the Committee during the appointment period of said member and for three years thereafter.

The Environmental Protection Administration shall determine the organizational rules, which shall be promulgated after approval by the Executive Yuan.

#### Article 6

Priority consideration shall be given to the use of substances that reduce waste production to achieve resource sustainability insofar as is economically and technologically feasible. Priority consideration shall be given to the reuse, recycling, energy recovering, and appropriate disposal, in that order, of substances that have lost their original utility. However, a waste utilization method that yields optimal overall environmental benefit based on lifecycle considerations shall not be subject to this restriction.

#### Article 7

The central competent authority and central industry competent authority shall, in accordance with their duties and powers, formulate and implement relevant policies, laws, and regulations governing the reduction of resource consumption, control of waste production and promotion of resource recycling and reuse.

#### **Article 8**

The local competent authority and all local industry competent authorities shall, in addition to performing pursuant to regulations detertmined by the central competent authorities pursuant to the foregoing article, be responsible for reducing resource consumption, controlling waste production, and promoting resource recycling and reuse. Local competent authorities shall formulate consistent policies within their jurisdictions and implement said policies in accordance with governmental division of duties and powers.

#### Article 9

Enterprises shall comply with the following principles when engaging in industrial activities to reduce resource consumption, control waste production, and promote resource recycling and reuse:

- I. Employ clean production technology.
- II. Adopt necessary measures to reduce waste production when using raw materials.
- III. Implement recycling and reuse of raw materials after they lose their original utility or provide said materials for recycling and reuse, and bear responsibility for the appropriate disposal of materials that cannot be recycled or reused.
- IV. To prevent goods and containers from becoming waste, enterprises engaged in the manufacture and sale of goods or containers are responsible for increasing the useable life of such goods and containers and implementing the repair and maintenance thereof. Said enterprises shall also endeavor to perform product research, development, and design so as to facilitate recycling and reuse and shall indicate the types of materials used.

#### Article 10

Citizens shall have the duty and be responsible for abiding by the principles of reducing resource consumption, controlling waste production, and promoting resource recycling and reuse, and, to the greatest extent possible, extend the usable life of goods, use recycled products, and sort recyclable resources to prevent goods from becoming waste and appropriately recycle and reuse goods and recycled resources.

### **Chapter 2 Source Management**

#### **Article 11**

Enterprises as officially announced and designated by the central competent authority shall comply with the following designated items from the designated date onward:

- I. Types of renewable resources recycled and recycling method
- II. Labels listing materials used in products and proportion of renewable resources
- III. Classification and recycling marks on products
- IV. Other items as specified by the central competent authority in consultation with the central industry competent authority

The central competent authority in consultation with the central industry competent authority shall determine industry classifications, the designated dates, and other binding matters in the foregoing paragraph.

When importing products possessing similar or identical performance as those produced or manufactured by the designated industries in Paragraph 1, importers shall comply with the regulations of Paragraph 1 at the time of sale.

### Article 12

The industry competent authority shall provide guidance to enterprises on the recycling and reuse of renewable resources.

The central industry competent authority may, depending on the state of industrial development, officially announce and designate that certain products, construction and engineering, or enterprise types and scale shall comply with the following specified items during the research, development, design, manufacturing, production, sale, and construction stages:

- I. Use of materials, specifications, or designs that facilitate decomposition, demolition, or recycling and reuse
- II. Use of certain proportions or quantities of renewable resources
- III. Use of refillable containers
- IV. Other items specified by the central competent authority in consultation with the central industry competent authority

The central industry competent authority in consultation with the central competent authority shall determine the specified products, construction processes, types of industries, materials, specifications, certain proportions or quantities, and their implementation methods, etc. officially announced and designated in the foregoing paragraph.

The central competent authority may officially announce and designate the restriction or prohibition of the use of goods, packaging, or containers as designated by the central competent authority on public or private premises.

The central competent authority in consultation with the central industry competent authority shall determine the specified materials, specifications, and method of restricting or prohibiting the use of goods, packaging, or containers in the foregoing paragraph.

#### Article 14

The production and sale of products shall avoid excessive packaging to reduce waste production and mitigate environmental loading. The central competent authority in consultation with the central industry competent authority may officially announce and designate enterprises as being subject to restrictions on packaging volume ratio, number of packaging layers, and types or quantity of materials used in the packaging of specified products after a specified deadline.

When importing the specified products in Paragraph 1 or products possessing similar or identical performance, importers shall comply with the regulations of Paragraph 1 at the time of sale.

### **Chapter 3 Operational Management**

#### Article 15

The central competent authority shall announce renewable resource items that must be reused.

The central competent authority in consultation with the central industry competent authority and reuse industry competent authority shall determine collection, transport, and storage methods, facilities standards, reuse standards, records, and other binding matters with regard to the reuse of renewable resources.

The central industry competent authority shall announce renewable resource items that must be recycled.

The central industry competent authority in consultation with the central competent authority and recycling industry competent authority shall determine collection, transport, and storage methods, facilities standards, recycling standards, records, and other binding matters with regard to the recycling of renewable resources.

Enterprises may submit reuse or recycling plans for items not yet officially announced as renewable resources and apply to the central competent authority or central industry competent authority for approval as renewable resource items.

The central competent authority or central industry competent authority shall determine the format and content of the reuse or recycling plans in the foregoing paragraph.

#### Article 16

Renewable resources and recycled products shall meet national standards. The central industry competent authority in consultation with the central competent authority shall announce standards for items for which there are no national standards.

Regulations in Chapter 4 Assistance and Incentive Measures of this Act are not applicable if renewable resources or recycled products fail to meet standards pursuant to the foregoing paragraph.

### Article 17

The central competent authority in consultation with the central industry competent authority may restrict or prohibit the import or export of renewable resources so as to effectively recycle and reuse domestic renewable resources.

The central competent authority in consultation with relevant agencies shall determine the restriction, prohibition, and related management of the import or export of renewable resources in the foregoing paragraph.

#### **Article 18**

Enterprises officially announced and designated by the central competent authority shall report to the central competent authority their production, storage, collection, transport, reuse, recycling, import, export, transit, or transshipment of renewable resources via the Internet and in accordance with the format, items, content, and frequency required by the central competent authority. If authorized by the central competent authority, however, enterprises may report by some means other than the Internet.

### Article 19

Any renewable resources not recycled or reused in accordance with regulations shall be considered waste, and shall be recycled, cleared, and disposed of pursuant to the Waste Disposal Act.

Any renewable resources that cannot be reused or recycled shall be cleared and disposed of pursuant to the Waste Disposal Act.

#### Article 20

For waste that is required to be recycled pursuant to the Waste Disposal Act and that is also a renewable resource as officially announced pursuant to this Act, recycling, storage, and the collection, safekeeping and utilization of recycling, clearance and disposal fees shall be subject to the regulations of the Waste Disposal Act.

#### Article 21

The competent authority and industry competent authority, or a commissioned professional organization, may dispatch personnel

bearing identification documents to enter enterprise or renewable resource recycling and reuse operational, working, or business premises to perform inspection and request relevant information.

Relevant businesses may not evade, obstruct, or refuse any inspections or requests in the foregoing paragraph.

Before commissioning a professional organization to independently perform the inspection in Paragraph 1, the competent authority and industry competent authority shall announce the commissioned tasks and basis for such inspection and shall notify the premises to be inspected.

## **Chapter 4 Assistance and Incentive Measures**

#### **Article 22**

To promote the recycling and reuse of resources, government agencies, public schools, public enterprises and organizations, and military authorities shall preferentially procure government-recognized environmentally preferable products, renewable resources produced within the national territory, or recycled products in which at least a certain proportion of renewable resources as raw materials are used.

The central competent authority in consultation with relevant agencies shall determine the environmentally preferable products, renewable resources, and certain proportion of renewable resources that recycled products must contain.

The central competent authority and all industry competent authorities shall themselves perform, or commission a professional organization or enterprise to perform educational and sales promotion activities for recycling technology, renewable resource, recycled product, and environmentally preferable products.

#### Article 23

The central competent authority shall regularly select and hold awards, or assign or commission a relevant agency or organization to regularly select and hold awards, for excellence in reuse and recycling technological developments and actual reuse and recycling achievements. The central competent authority in consultation with relevant agencies shall determine award money, grant, and commendation rules.

Enterprises engaged in recycling and reuse shall be granted tax incentives for the cost of investment in recycling and reuse research, facilities, tools, and equipment. The central tax competent authority in consultation with the central industry competent authority and central competent authority shall determine tax deduction items, their amount, and other binding matters.

#### Article 24

To promote the recycling and reuse of renewable resources, acquire advanced renewable resource recycling and reuse technology and talent, and encourage innovative technology research and development by the domestic environmental protection industry, the competent authority or industry competent authority may plan and establish dedicated areas for environmental protection science and technology or renewable resource recycling and reuse depending on the land needs of renewable resource enterprises in each area.

If the land used for dedicated areas and environmental protection science technology or renewable resource recycling and reuse purposes in the foregoing paragraph entails changes to the urban plan, the competent authority may draw up a feasibility plan and, in conjunction with the competent urban planning authority, implement changes pursuant to the regulations of Article 27 of the Urban Planning Act; for non-urban land use changes, the competent authority shall implement the changes pursuant to the Regional Planning Act and non-urban land use control regulations.

After the completion of dedicated area and land change and rezoning in the foregoing paragraph in accordance with law, publicly-owned land may be appropriated for use by or leased to developers, and shall not be subject to the restrictions of Article 25 of the Land Act.

If the dedicated areas and land in Paragraph 2 are not used for environmental protection science and technology or renewable resource recycling and reuse purposes, the competent authority or industry competent authority may notify the land competent authority to terminate the lease contract, and may notify the urban planning competent authority or regional planning competent authority to restore the original zoning of the land, or change it to another appropriate zoning.

When an industrial park is developed, the competent authority may, in accordance with the local need for land for renewable resource recycling and reuse purposes, request the industrial park development unit to set aside land for said purposes.

### **Chapter 5 Penal Provisions**

#### **Article 25**

Those having reporting obligations pursuant to Article 15 and Article 18 of this Act that knowingly report false information or keep false records of their operations shall be punished by a maximum of three years imprisonment, detention and/or a fine of a maximum of NT\$1.5 million.

#### Article 26

The competent authority or industry competent authority may issue a fine of NT\$30,000 to NT\$50,000 to those to whom any one of the following situations applies. Those notified to make corrections or improvements within a limited time period that have still failed

to make corrections or complete improvements by the deadline shall be issued consecutive daily fines. Serious violators may be ordered to suspend work for one month to one year, or suspend business. When necessary, violators may be ordered to terminate business.

- I. A manufacturing enterprise or importer that has violated any of the items requiring compliance in Article 11, Paragraph 1 or announced items in Paragraph 2.
- II. Failure to comply with specifications or use restrictions or prohibitions concerning the goods, packaging, containers, and materials thereof specified by the central competent authority pursuant to Article 13.
- III. A manufacturing enterprise or importer that has violated the regulations of Article 14 concerning product packaging.
- IV. Violation of management regulations in Article 15, Paragraph 2 or Paragraph 4.
- V. Violation of restrictions or prohibitions on the import or export of renewable resources specified pursuant to Article 17, Paragraph 1.
- VI. Violation of reporting regulations in Article 18.
- VII. Evasion, obstruction, or refusal of inspection by or requests made by the competent authority or industry competent authority pursuant to Article 21.

If an enterprise fails to comply with an order to suspend work or suspend business made in accordance with this Act, the local competent authority may make a report to the central competent authority, which shall request the industry competent authority to order the enterprise to terminate business.

#### **Article 27**

"Serious violators" in the foregoing paragraph means those to whom any one of the following situations applies:

- Continuing violation of the same regulation of this Act after being ordered twice in one year to make improvements within a designated time period.
- II. Failure to recycle and reuse renewable resources in accordance with regulations, and seriously polluting the environment.
- III. Submission of untruthful application, reports, and records.
- IV. Other situations as recognized by the competent authority.

#### **Article 28**

Those who fail to pay fines issued pursuant to this Act by the deadline shall be referred for compulsory enforcement in accordance with the law.

#### Article 29

The competent authority or industry competent authority shall carry out interdiction, evidence collection, and enforcement referral matters in accordance with to this Act.

Unless implemented by the industry competent authority, the special municipality, city or county competent authority shall implement penalties designated in this Act.

### **Chapter 6 Supplementary Provisions**

### Article 30

The central competent authority shall determine the enforcement rules of this Act.

#### Article 31

This Act shall take effect one year after promulgation.

# **Recycling Awareness in Taiwan**

Publicity is crucial for promulgation of recycling-associated policies and the success of recycling programs. This handout provides a review of methods by which Environmental Protection Administration Taiwan (EPAT) has promotes recycling to Taiwan residents over the past two to three decades.

### **Background**

Thirty years ago, Taiwan residents lacked knowledge of recycling and did not know how to separate wastes. Since 1990, to encourage recycling, EPAT and local Environmental Protection Bureaus (EPBs) installed recycling bins of four categories (paper, plastic, glass and metal) in neighborhoods, local convenience stores, and public places. However, recycling did not increase significantly. In order to make recycling easier for citizens, EPAT held a recycling logo design contest and has required the logo to be placed on new recyclable products since 1989 (Figure 1). The logo has been registered as a trademark and rules for the use of the logo have been delineated by law.



Figure 1 Recycling logo (*left*) and marks at recycling spots (*middle*) and on containers (*right*).

# Outreach and public information resources on recycling

EPAT provides information on recycling and associated policies through multiple channels and also conducts outreach and publicity to increase recycling awareness.

### (1) Recycling toll-free line and website

a. Toll-free line (0800-085-717)

EPAT has maintained a dedicated recycling service toll-free line since 1998. The line functions as a communication channel among the public, collectors and EPAT, and provides immediate responses to recycling-associated questions, issues and suggestions. It has become an efficient tool for communication between EPAT and the public, as evidenced by the 138,187 calls received in 2011.

b. Website (<a href="http://recycle.epa.gov.tw">http://recycle.epa.gov.tw</a>)

The website contents are categorized for kids, concerned citizens, responsible enterprises, and recyclers. Recycling news, laws and regulations, statistics, audio and videos, and FAQ are maintained for online viewing as well as for downloading. At the end of 2011, the web browsing counts were about 2,290,000.

### (2) Recycling Outreach

a. Periodicals

EPAT began publishing periodicals about recycling in August 1998; subscriptions were available to the public. 38 issues focusing on recyclable items, the recycling logo, and recycling channels were published. However, in January 2002, EPAT developed its recycling website in order to share more information with more people and stopped publishing the paper periodicals.

### b. E-Newsletter

Since May 2008, EPAT has published an "E-newsletter for Manufacturers and Importers of RWW" to assist manufacturers and importers of RRW with their reporting requirements and with recycling fee payments. The newsletter provides updates on the newest regulations and information. In July 2008, it was renamed as "R-PAPER" and added new columns, such as an experts' forum and a recycling achievements section, in order to appeal to more readers. At the end of 2011, there were 13,144 subscriptions to this e-newsletter.

### c. Outreach

EPAT has produced a variety of outreach materials to draw public attention to specific recycling-associated policies and regulated RRW, including recycling manuals, leaflets, posters, stickers, and CD-ROMs.

EPAT has also conducted recycling awareness campaigns, such as its waste battery collection campaign, during which recycling bins were placed in prominent public places including, convenient stores, schools, and communities.

EPAT has also developed recycling promotion films to explain key concepts and goals to the public and to regulated enterprises. From 1999-2005, films were primarily introductions to 4-in-1 Recycling Program and RRW. Since 2006, films have been made for specific promotional purposes. For example, an adapted Green's fairy tale was used as a film script to describe the full recycling system in Taiwan, as well as to share the program achievements and explain regulations.

### **Expositions, Competitions, and Local Conventions**

In addition to the outreach materials and information resources described above, EPAT has developed participatory activities to encourage residents to recycle. There have been three main types of activities: expositions/conferences, competitions, and activities associated with local festivals or religious ceremonies.

- Exposition/Conference
   In 2005, EPAT held a National Exposition of Environmental Protection
   Originality with the theme of "Healthy Taiwan and a Sustainable
   Environment." In 2007, EPAT organized a recycling conference with
   local governments and invited experts, university students and the
   general public to join. During these conferences, EPAT shared
   information on recycling, and experts, business and university students
   presented new recycling technology and research.
- Competitions
   EPAT has successfully transformed the subject of recycling into a popular topic through several competitions since 2006. EPAT has held a competition every year and the prizes are based on the competition scale. One of the most impressive competitions is the Recycling Rap Contest, in which youth perform rap songs about social morality and environmental protection. In 2007, EPAT organized a Recycling Essay Competition for students, and also organized a College Debate Competition on recycling as a way to involve students in proposing novel recycling policy ideas, which can be used to inform future policies.
- Festivals

Recycling has been well incorporated into two customary activities: (1) National Dragon Boat Race with Environmental Protection Originality (Figure 2). From 1997-2006, EPAT has successfully incorporated recycling subjects into the race. Participants could create boats with recycled materials to join in the race, making it both fun and meaningful to practice recycling in a festival every year. (2) A Clean Mazu Procession Ceremony (Figure 3). Mazu Procession is very famous annual religious ceremony in Taiwan. Many people would walk and follow Mazu Procession town by town to show how pious they are but they would generate tons of trash and wastes during the ceremony. EPAT has promoted garbage reduction and resource recycling at the event since 2008, so that the participants learn the concepts and methods of resource recycling.







Figure 2 National Dragon Boat Race





Figure 3 Clean Mazu Procession Ceremony

### **Promotion in Community and Global Conferences**

- EPAT also collaborates with citizen groups to conduct recycling education in communities. Since 1999, EPAT has supported the formation of recycling groups in communities to promote household waste sorting. Afterwards, EPAT has implemented a "Community Image Rising Plan" to clean the environment of recycling spot; the community would get neater and tidier. From 2009, EPAT further collaborated with community markets and business parks to promote recycling. EPAT decorated the recycling spot with beautiful patterns and educated not only residents but also visitors on recycling awareness. The revenue generated by communities, businesses and others from selling the RRW can be used to fund community or local infrastructure.
- The purpose of collaboration and conferences is to share information on EPAT's recycling programs and achievements, as well as to learn from others' recycling experiences. EPAT has conducted global recycling conferences every year since 2007; the subjects have included policies, regulations, economics, and industries, providing discussion platforms for recycling programs and new technologies. In addition, EPAT has given grants to citizen groups to host the 11th Conference for East Asia Resource Recycling Technologies in 2012. EPAT also organizes global dialogues on WEEE management with the U.S. Environmental Protection Agency.

## Taiwan drafts new waste act

🔇 waste-management-world.com /a/taiwan-drafts-new-waste-act

3/16/2010

The Taiwan government's Environment Protection Agency (EPA) has merged the Waste Disposal Act and the Resource Recycling and Reuse Act into one Waste Resource Cycling Promotion Act.

Taiwan currently manages waste and renewable resources through two acts. The Waste Disposal Act strictly treats all discarded materials as waste while the Resource Recycling and Reuse Act holds flexible criteria of renewable resources according to economic and technical feasibility of recycling and reuse in fluctuation with the market and other factors.

These inconsistencies in waste and renewable resource management systems have posed difficulties for businesses according to the EPA.

The main points of this new draft act are as follows:

- strengthen source reductions including green design, green production, manufacturers' recycling responsibilities, green consumption and green procurement.
- re-evaluate waste resource sorting methods and classify reusable and recyclable materials as "reusables" and non-reusable and non-recyclable materials as "waste."
- implement management of enterprise resource recycling, adopting a dual-tier system based on fee collection principles and enterprises recycling their own materials.
- implement polluter-pays principle by collecting funds for disposal and treatment of industry waste resources.
- re-evaluate waste disposal responsibilities and establish reasonable waste disposal responsibilities.
- strengthen reuse management methods with exceptions announced by the central competent authority for materials that are inappropriate for reuse due to being hazardous to human health or potentially polluting the environment. Reuse organizations should obtain a permit from competent authorities, who are required to strictly manage such affairs.
- the original principles of environmental protection and sanitation in waste management have been retained with an additional article on environmental sanitation.

# Zero Waste and Resource Recycling Promotion (廢棄物資源循環零廢棄推動情形)

epa.gov.tw/ct.asp

#### (I) General Waste Recycling and Reuse Promotion

The EPA began to implement waste minimization at the source, compulsory garbage sorting, and expanded the scope of waste recycling from July 2002. The average amount of Municipal Solid Waste (MSW) collected for disposal reached 0.520 kg per capita per day in 2008, which dropped by 50.74% from the peak value in 1998. The percentage of MSW that was properly disposed of increased from 60.17% in 1989 to 99.99% in 2008. The recycling rate of MSW increased from 24.01% in 2004 to 41.96% in 2008. The recycling rate of MSW includes the resource recycling rate (32.20%), the kitchen waste recycling rate (9.17%) and the bulk waste recycling rate (0.59%). The increase of resource recycling rate indicates that the progress is approaching the goal of Zero Waste Program:

- 1.The EPA continuously promotes the programs of mandatory garbage sorting, resource recycling, and the reduction of disposable products. Recently, the EPA introduced the restriction on excessive packaging, as well as restriction of the manufacturing, import, and sales of manganese-zinc batteries and non-button type alkaline manganese batteries containing over 5 ppm of mercury from September, 2006. Furthermore, the EPA has established phased measures to reduce mercury thermometers. In Phase I, since July, 2008, mercury thermometers were restricted to be imported only by importers granted with a valid permit, and the thermometers could only be sold to medical establishments. In Phase II, the import and sale of mercury thermometers will be prohibited comprehensively from July 1, 2011. The mercury released into the environment is estimated to be reduced by 850 kg per year. Furthermore, the EPA made an agreement with convenience stores not to provide disposable chopsticks unless demanded by the customer. This is expected to reduce 20% of chopstick use, or 36 million pairs (about 300 tons).
- 2.In recent years, the technology for incinerator ash reutilization has advanced. After magnetic separation and screening, ferrous and non-ferrous metals can be salvaged from incinerator bottom ash (IBA). Processed IBA can be used as road construction aggregates, mixed with asphalt, replacing bricks, and other materials. To promote the market for IBA reutilization, the EPA has been actively advocating the use of IBA products in public construction projects. As of now, IBA from 18 incinerators in 12 counties and cities has been processed for reutilization, including Taipei City, Taipei County, Taoyuan County, Changhua County, Kaohsiung City, Kaohsiung County, Yilan County, Taichung City, Taichung County, Tainan City, Pingdong County and Hsinchu City. A total of 1.72 million tonnes of IBA were processed and reutilized, with a reutilization rate of 53% in 2008.
- 3.As for the waste-collection vehicle upgrade program, we subsidized counties and cities with a total of 628 waste-collection vehicles in 2008. This kind of collective contract arrangement substantially saved cost and resources for local governments. The EPA also continues to assist local governments in establishing septic waste treatment facilities and creating collection and classification schemes for building renovation waste. By 2012, it is estimated that septic waste treatment capacity will reach 1,900 tonnes per day, and nearly 300,000 tonnes of reusable resources can be salvaged from building renovation waste.
- (II) Promotion of Industrial Waste Recycling & Reuse
- 1.To sustainably utilize resources, participating government agencies actively promote waste recycling and reuse in accordance with the Waste Disposal Act. Currently, responsible agencies associated with the project have defined 92 types of industrial waste as due recyclable and reusable general industrial waste and their recycling management measures in accordance with Subparagraph 2, Article 39 of the Waste Disposal Act. Among these wastes, 57 types are under the jurisdiction of the Ministry of Economic Affairs, 7 types under the Ministry of the Interior, 2 types under the Ministry of Finance, 8 types under the Ministry of Transportation and Communications, 9 types under the Department of Health, and 9 types under the Council of Agriculture.

Meanwhile, 765 waste recycling and reuse permits have been issued.

- 2.To promote and encourage industrial waste recycling and reuse in the industrial sector, the "Award Ceremony for Excellent Performance of Industrial Waste and Resource Recycling and Reuse" has been held annually since 2002. A total of 153 enterprises have participated in the contest. Among these enterprises, 66 enterprises were rated as excellent and 20 enterprises were rated as good in the first and the second appraisals. In 2008, 10 enterprises and 4 enterprises were awarded excellent and good performance, respectively. The EPA puts out publications and holds symposiums annually to further share the recycling experience with the general public.
- 3. The EPA has actively promoted the establishment of Environmental Science and Technology Parks (ESTPs) since 2003. The establishment of ESTPs can upgrade environmental technology and promote resource reuse, recycling and recovery. By the end of 2011, 75 facilities will have been introduced.
- (1) Park Construction: The R & D Buildings in Kaohsiung Park, Hualien Park and Tainan Park are now in operation, and the R & D Building in Taoyuan Park has been completed.
- (2) Facilities Recruitment: Approval has been granted to a total of 78 facilities to be established in the 4 parks until June 2009. Among them, 32 facilities are located in Kaohsiung Park, 14 facilities in Tainan Park, 15 facilities in Taoyuan Park, and 17 facilities in Hualien Park. Applications for permission for an additional 32 facilities to be set up in the parks are currently under audit. The government will subsidize 50% of the land rent payment, 25,000,000 NT dollars for production; and 50% of the R & D. Facilities can choose either to lease or purchase land, laboratories, factories, or offices.
- 4.To effectively upgrade and resolve related problems of construction and demolition waste recycling and reuse, the EPA requested relevant government agencies to consider the possibility of using products made from recyclable and reusable waste materials in their public construction projects. Through the efforts of these government agencies, the usage of such products in public construction has been increased gradually.
- (III) Implementation of Pollution Source Permit Management Scheme
- 1.In order to track and control industrial waste streams, starting in August 1998 the EPA has announced in batches operations that tend to generate hazardous or large amounts of industrial waste, requiring these operations that tend to provide their clean-up plans, as well as status reports thereof on the Internet. Towards the end of December 2008, of the 23,942 pollution sources for which clean-up plans were required, 23,304 submissions had been made, a rate of 97.3%. Of the 22,527 reports that were required to be submitted on the Internet, 21,763, or 96.6%, of them had been done. Local Environmental Protection Bureaus (EPBs) and municipal level environmental bureaus have been following some exceptional cases. By the end of December 2008, 7,678 cases had been investigated. Charges have been made or penalties given in 403 of these cases. This management scheme has effectively controlled the clean-up of the industrial waste stream and curbed illegal disposal activities.
- 2.Public and private waste clearance and disposal organizations must obtain operation permits granted by the EPBs to ensure that every stage of their operation complies with environmental laws and regulations, and to prevent pollution during waste transportation and treatment. As of the end of December 2008, 2,975 organizations had been granted clearance and disposal licenses, with total treatment capacity of 673,768 metric tonnes, and transporting capacity of 4.47 million metric tonnes.
- Every year, the EPA conducts on-site inspections to ensure the public and private waste clearance and disposal organizations comply with the Waste Disposal Act. The EPA also provides technical guidance and assistance to these organizations.
- 3.To improve pollution source permit management, the project "Planning of the Baseline Information and Online Reporting Integration in the Areas of Air, Water, Waste, and Toxic Substances" was carried out in 2006. Through an integrated website, reporters can check their baseline information and access their own information reported previously, when applying for permits and reporting pollutant discharge information. This service, which was made available for reporters to review on August 1, 2007, effectively eliminated redundant reporting work and offered a convenient tool to trace pollutant generation sources.

#### (IV) Reinforcement of Waste Import/Export and International Cooperation

- 1. Taiwan has fully committed to effective waste management in the transboundary movements of hazardous wastes and their disposal by adopting the Basel Convention provisions into its domestic laws. The domestic laws require the exporter/importer to have an import/export permit issued by a competent authority before undertaking export/import operations. For hazardous waste export/import, the central competent authority must first approve the permit. Among the waste imported, the major ones are waste cables, waste motors, and waste compressors. The EPA audits the export information by looking at the exporters' reporting data. The customs office also assists the EPA in preventing illegal traffic in waste through active inspection and reporting the results back to the EPA.
- 2.Considering the global trend toward resource recycling and reuse, some industrial wastes are designated as raw materials for industrial use. Permit application prior to import/export is not required for waste under this category. There are a total of 19 categories of waste designated as raw materials for industrial use. Such measures can simplify the import/export process and make the domestic resource recycling and reuse industry more competitive internationally. Also, resource recycling and reuse can be encouraged, leading to a reduction in the amount of waste treated.

Major Administrative Tasks for the Future

- 1.The EPA will continue to promote measures in phases to reduce use of disposable products, and encourage the production and design of green packaging products. Mandatory garbage sorting and the expansion in the scope of waste recyclable items will continue in order to increase the benefits of recycling programs. The EPA will track and audit the wastes recycled to prevent pollution during the recycling processes.
- 2.In accordance with the international trend of "phasing out and ultimately banning the use of mercury," the EPA will review and revise the control measures for the manufacture, import and sale of mercury-containing dry cells, in order to reduce the spread of mercury in the environment gradually.
- 3.Regarding promotion of the recovery of bioenergy from agricultural residues, the EPA is using rice straw to conduct collection and treatment research, including: field verification of collection, transportation, treatment and reuse methods, and cost-benefit analysis. The EPA will coordinate with the Council of Agriculture to obtain investigation and planning information on agricultural residues. The EPA will also collect and research information from overseas. After investigation and research, the EPA will conduct an assessment on transforming existing municipal solid waste incineration plants into bioenergy centers by co-disposing of agricultural residues. In the bioenergy center, different feedstocks will be converted into solid bio-fuel or bio-coal by several pretreatment processes, such as mechanical heat treatment, torrefaction, etc.. The end use of bio-coal will be co-fired off-site in commercial coal power plants for higher electricity energy efficiency, and installation of other novel energy conversion technologies on-site will also be evaluated in the long term.
- 4.Among the companies in the four ESTPs, some have cooperated with each other to establish ecological linkages of production, material, and energy cycles. In the future, promotion seminars and related activities will be held regularly to attract green industries to set up facilities in the ESTPs. Companies or organizations that set up operations in an ESTP will be eligible for research subsidies of up to 50% of their research expenditures.
  - Source: Environmental Protection Administration, R.O.C. (Taiwan)
  - Date:2017/8/14
  - Updated:2017/8/14
  - Hit:123
  - Top
  - Go Back

# 英譯法規(English Version)

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中文(Chinese)	英文(English)
有害事業廢棄物認定標 準(2017.05.12)	Standards for Defining Hazardous Industrial Waste (2017.05.12)
交通工具空氣污染物排放標 準(2017.04.27)	Vehicular Air Pollutant Emission Standards (2017.04.27)
改造或汰換旅宿業醫療社會福利機構學校燃油鍋爐補助辦法(2017.04.13)	Regulation Governing Subsidies for Modification or Replacement of Oil- Fired Boiler in Hotel Industries, Medical Care Institutions, Social Welfare Institutions and Schools(2017.04.13)
溫室氣體階段管制目標及管制方式作業準則(2017.03.28)	Regulations for Periodic Regulatory Goals and Approaches of the Greenhouse Gas Emissions(2017.03.28)
固定污染源設置與操作許可證管 理辦法(2017.02.13)	Stationary Pollution Source Installation and Operating Permit Management Regulations(2017.02.13)
廢棄物清理法(2017.01.18)	Waste Disposal Act (2017.01.18)
飲用水水質標準(2017.01.10)	Drinking Water Quality Standards(2017.01.10)
病媒防治業管理辦 法(2016.12.30)	Pest Control Operators Management Regulations (2016.12.30)
土壤及地下水污染整治費收費辦法(2016.12.30)	Regulations Governing Collection of Soil and Groundwater Pollution Remediation Fees (2016.12.30)
交通工具空氣污染物排放標 準(2016.12.27)	Vehicular Air Pollutant Emission Standards (2016.12.27)
行政院環境保護署毒物及化學物質局組織法(2016.12.23)	The Organization Act of the Toxic and Chemical Substances Bureau, Environmental Protection Administration, Executive Yuan(2016.12.23)
水污染防治措施及檢測申報管理 辦法(2016.10.28)	Water Pollution Control Measures and Test Reporting Management Regulations(2016.10.28)
環境保護專責單位或人員設置及 管理辦法(2016.08.11)	The Employment Management Regulations of Environmental Dedicated Units or Personnel(2016.08.11)
環境用藥專業技術人員設置管理 辦法(2016.06.29)	Regulations Governing the Employment of Environmental Agent Professional Technicians (2016.06.29)
公民營廢棄物清除處理機構許可 管理辦法(2015.12.30)	Permit Management Regulations for Public or Private Waste Clearance and Disposal Organizations(2015.12.30)
海洋污染防治法(2014.06.04)	Marine Pollution Control Act (2014.06.04)
交通工具空氣污染物排放標 準(2014.03.21)	Vehicular Air Pollutant Emission Standards (2014.03.21)
化工業放流水標準(2014.01.22)	Chemical Industry Effluent Standards(2014.01.22)
放流水標準(2014.01.22)	Effluent Standards(2014.01.22)
飲用水水質標準(2014.01.09)	Drinking Water Quality Standards(2014.01.09)

營建工程空氣污染防制設施管理 辦法(2013.12.24)	Management Regulations for Construction Project Air Pollution Control Facilities (2013.12.24)
地下水污染管制標 準(2013.12.18)	Groundwater Pollution Control Standards (2013.12.18)
地下水污染監測標 準(2013.12.18)	Groundwater Pollution Monitoring Standards(2013.12.18)
交通工具空氣污染物排放標 準(2013.12.13)	Vehicular Air Pollutant Emission Standards (2013.12.13)
毒性化學物質管理 法(2013.12.11)	Toxic Chemical Substances Control Act(2013.12.11)
交通工具空氣污染物排放標 準(2013.10.28)	Vehicular Air Pollutant Emission Standards (2013.10.28)
事業廢棄物輸入輸出管理辦 法(2013.09.12)	Management Regulations for the Import and Export of Industrial Waste (2013.09.12)
開發行為應實施環境影響評估細 目及範圍認定標準(2013.09.12)	Standards for Determining Specific Items and Scope of Environmental Impact Assessments for Development Activities (2013.09.12)
噪音管制標準(2013.08.05)	Amendment to Noise Control Standards(2013.08.05)
機動車輛停車怠速管理辦 法(2013.06.25)	Motor Vehicle Parking and Idling Management Regulations (2013.06.25)
環境用藥許可證申請核發作業準 則(2013.06.13)	Working Standards for Environmental Agent Permit Application and Issuance(2013.06.13)
水污染防治措施及檢測申報管理 辦法(2013.05.31)	Water Pollution Control Measures and Test Reporting Management Regulations(2013.05.31)
廢棄物清理法(2013.05.29)	Waste Disposal Act (2013.05.29)
固定污染源空氣污染物排放標 準(2013.04.25)	Stationary Pollution Source Air Pollutant Emissions Standards (2013.04.25)
水污染防治措施及檢測申報管理 辦法(2013.03.08)	Water Pollution Control Measures and Test Reporting Management Regulations(2013.03.08)
空氣污染防制法(2012.12.19)	Air Pollution Control Act (2012.12.19)
行政院環境保護署環境保護產品證書規費收費標準(2012.12.12)	Standards for Eco-product certificate fees of Environmental Protection Administration (2012.12.12)
海洋污染防治各項許可申請收費 辦法(2012.12.10)	Regulations Governing the Collection of Various Marine Pollution Control Permit Application Fees (2012.12.10)
海洋污染防治各項許可申請收費 辦法(2012.12.10)	Regulations Governing the Collection of Various Marine Pollution Control Permit Application Fees (2012.12.10)
海洋污染防治各項許可申請收費 辦法(2012.12.10)	Regulations Governing the Collection of Various Marine Pollution Control Permit Application Fees (2012.12.10)
公民營廢棄物清除處理機構許可 管理辦法(2012.12.05)	Permit Management Regulations for Public or Private Waste Clearance and Disposal Organizations(2012.12.05)
廢棄物清理法(2012.11.28)	Waste Disposal Act (2012.11.28)
放流水標準(2012.10.12)	Effluent Standards(2012.10.12)

光電材料及元件製造業放流水標準(2012.10.12)	Optoelectronic Materials and Component Manufacturing Industry Effluent Standards(2012.10.12)
科學工業園區污水下水道系統放流水標準(2012.10.12)	Science Park Sewer Systems Effluent Standards (2012.10.12)
空氣污染防制費收費辦 法(2012.09.06)	Air Pollution Control Fee Collection Regulations (2012.09.06)
空氣污染防制費收費辦 法(2012.09.06)	Air Pollution Control Fee Collection Regulations (2012.09.06)
機動車輛排放空氣污染物及噪音 檢驗測定機構管理辦 法(2012.03.01)	Regulations Governing Motor Vehicle Air Pollutant and Noise Emission Testing Organizations(2012.03.01)
違反機動車輛停車怠速管理規定 罰鍰標準(2012.02.16)	Fine Standards for Violations of Motor Vehicle Parking and Idling Regulations(2012.02.16)
機動車輛停車怠速管理辦 法(2012.02.16)	Motor Vehicle Parking and Idling Management Regulations (2012.02.16)
環境檢驗測定機構管理辦 法(2012.02.10)	Environmental Analysis Organization Management Regulations(2012.02.10)
開發行為應實施環境影響評估細 目及範圍認定標準(2012.01.20)	Standards for Determining Specific Items and Scope of Environmental Impact Assessments for Development Activities (2012.01.20)
應回收廢棄物責任業者管理辦 法(2011.12.28)	Responsible Enterprise Regulated Recyclable Waste Management Regulations(2011.12.28)
放流水標準(2011.12.01)	Effluent Standards(2011.12.01)
海洋放流管線放流水標 準(2011.12.01)	Marine Discharge Pipe Effluent Standards(2011.12.01)
石油化學專業區污水下水道系統 放流水標準(2011.12.01)	Petrochemical Industrial Park Sewage System Effluent Standards(2011.12.01)
石油化學業放流水標 準(2011.12.01)	Petrochemical Industry Effluent Standards (2011.12.01)
機動車輛車型噪音審驗合格證明 核發廢止及噪音抽驗檢驗處理辦 法(2011.12.01)	Regulations Governing the Issuance and Replacement of Compliance Certification and Sample Testing for New Vehicle Model Noise Inspections(2011.12.01)
晶圓製造及半導體製造業放流水標準(2011.12.01)	Wafer and Semiconductor Manufacturing Industry Effluent Standards(2011.12.01)
室內空氣品質管理法(2011.11.23)	Indoor Air Quality Act (2011.11.23)
土壤及地下水污染整治基金收支保管及運用辦法(2011.11.09)	Soil Pollution and Groundwater Pollution Remediation Fund Revenues and Expenditures, Safekeeping, and Utilization Regulations (2011.11.09)
汽油及替代清潔燃料引擎汽車車型排氣審驗合格證明核發撤銷及廢止辦法(2011.08.26)	Regulations Governing Issuance, Revocation, and Cancellation of Compliance Certification for Gasoline and Alternative Clean Fuel Engine Vehicle Emissions Inspections(2011.08.26)
汽油及替代清潔燃料引擎汽車車型排氣審驗合格證明核發撤銷及廢止辦法(2011.08.26)	Regulations Governing Issuance, Revocation, and Cancellation of Compliance Certification for Gasoline and Alternative Clean Fuel Engine Vehicle Emissions Inspections(2011.08.26)
公民營廢棄物清除處理機構許可 管理辦法(2011.08.23)	Permit Management Regulations for Public or Private Waste Clearance and Disposal Organizations(2011.08.23)

環境教育設施場所認證及管理辦法(2011.06.02)	Regulations Governing the Certification and Management of Environmental Education Facilities and Venues (2011.06.02)
空氣污染防制法(2011.04.27)	Air Pollution Control Act (2011.04.27)
柴油及替代清潔燃料引擎汽車車型排氣審驗合格證明核發撤銷及廢止辦法(2011.03.22)	Amendments to the Regulations Governing Issuance, Revocation, and Cancellation of Emissions Certificate of Conformity for Diesel and Alternative Clean Fuel Engine Vehicles (2011.03.22)
土壤及地下水污染整治費收費辦法(2011.03.07)	Regulations Governing Collection of Soil and Groundwater Pollution Remediation Fees (2011.03.07)
固定污染源逸散性粒狀污染物空 氣污染防制設施管理辦 法(2011.02.11)	Management Regulations for Facilities to Control Fugitive Dust Air Pollution from Stationary Pollution Sources(2011.02.11)
地下水污染管制標 準(2011.02.10)	Groundwater Pollution Control Standards (2011.02.10)
地下水污染監測標 準(2011.02.10)	Groundwater Pollution Monitoring Standards(2011.02.10)
固定污染源空氣污染物排放標 準(2011.01.05)	Stationary Pollution Source Air Pollutant Emissions Standards (2011.01.05)
固定污染源空氣污染物排放標 準(2011.01.05)	Stationary Pollution Source Air Pollutant Emissions Standards (2011.01.05)
加油站油氣回收設施管理辦法(2010.12.31)	Gas Station Gasoline Vapor Recovery Facility Management Regulations(2010.12.31)
加油站油氣回收設施管理辦法(2010.12.31)	Gas Station Gasoline Vapor Recovery Facility Management Regulations(2010.12.31)
土壤及地下水污染整治法施行細則(2010.12.31)	Revised Articles of the Soil and Groundwater Pollution Remediation Act Enforcement Rules (2010.12.31)
毒性化學物質許可登記核可管理 辦法(2010.12.20)	Permit Registration and Approval Regulations for Toxic Chemical Substances(2010.12.20)
毒性化學物質許可登記核可管理 辦法(2010.12.20)	Permit Registration and Approval Regulations for Toxic Chemical Substances(2010.12.20)
放流水標準(2010.12.15)	Effluent Standards(2010.12.15)
環境用藥各項許可申請及檢驗收 費標準(2010.09.17)	Fee Collection Standards for Environmental Agents (2010.09.17)
水污染防治措施及檢測申報管理 辦法(2010.07.07)	Water Pollution Control Measures and Test Reporting Management Regulations(2010.07.07)
環境教育法(2010.06.05)	The Environmental Education Act(2010.06.05)
環境檢驗測定機構管理辦 法(2010.04.16)	Environmental Analysis Organization Management (2010.04.16)
交通工具空氣污染物排放標 準(2010.03.31)	Vehicular Air Pollutant Emission Standards (2010.03.31)
交通工具空氣污染物排放標 準(2010.03.31)	Vehicular Air Pollutant Emission Standards (2010.03.31)
噪音管制法施行細 則(2010.03.11)	Noise Control Act Enforcement Rules (2010.03.11)

土壤及地下水污染整治 法(2010.02.03)	Soil and Groundwater Pollution Remediation Act (2010.02.03)
飲用水水質標準(2009.11.26)	Drinking Water Quality Standards(2009.11.26)
毒性化學物質危害預防及應變計 畫作業辦法(2009.11.18)	Toxic Chemical Substances Hazard Prevention and Response Plan Regulations (2009.11.18)
毒性化學物質標示及物質安全資料表管理辦法(2009.09.07)	Toxic Chemical Substances Labeling and Materials Safety Data Sheets Regulations(2009.09.07)
噪音管制標準(2009.09.04)	Noise Control Standards(2009.09.04)
機動車輛噪音管制標 準(2009.08.10)	Motor Vehicle Noise Control Standards (2009.08.10)
車用汽柴油成分管制標 準(2009.07.29)	Standards for the Composition of Automobile Gasoline and Diesel Fuels(2009.07.29)
放流水標準(2009.07.28)	Effluent Standards(2009.07.28)
民用航空器噪音管制標 準(2009.07.16)	Civil Aircraft Noise Control Standards (2009.07.16)
公害糾紛處理法(2009.06.17)	Public Nuisance Dispute Mediation Act(2009.06.17)
資源回收再利用法(2009.01.21)	Resource Recycling Act (2009.01.21)
海洋棄置許可管理辦 法(2009.01.08)	Marine Dumping and Marine Incineration Management Regulations(2009.01.08)
噪音管制法(2008.12.03)	Noise Control Act (2008.12.03)
環境檢驗測定機構管理辦 法(2008.10.31)	Environmental Analysis Organization Management Regulations (2008.10.31)
病媒防治業管理辦 法(2008.07.24)	Pest Control Operators Management Regulations (2008.07.24)
毒性化學物質管理法施行細 則(2007.12.17)	Toxic Chemical Substances Control Act Enforcement Rules (2007.12.17)
水污染防治法(2007.12.12)	Water Pollution Control Act(2007.12.12)
固定污染源設置與操作許可證管 理辦法(2007.11.21)	Stationary Pollution Source Installation and Operating Permit Management Regulations (2007.11.21)
毒性化學物質危害預防及應變計 畫作業辦法(2007.11.05)	Toxic Chemical Substances Hazard Prevention and Response Plan Regulations(2007.11.05)
機器腳踏車車型排氣審驗合格證明核發撤銷及廢止辦 法(2007.10.26)	Regulations Governing Verification Issuance and Cancellation of Certification Compliance for Motorized Bicycle Configuration Emissions(2007.10.26)
營建工程空氣污染防制設施管理 辦法(2007.10.24)	Management Regulations for Construction Project Air Pollution Control Facilities (2007.10.24)
毒性化學物質運作申請收費標準(2007.08.22)	Toxic Chemical Substances Handling Application Fee Standards(2007.08.22)
毒性化學物質管理 法(2007.01.03)	Toxic Chemical Substances Control Act(2007.01.03)

廢棄物焚化爐空氣污染物排放標 準(2006.12.25)	Waste Incinerator Air Pollutant Emissions Standards (2006.12.25)
事業廢棄物貯存清除處理方法及 設施標準(2006.12.14)	Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste (2006.12.14)
環境用藥販賣業及病媒防治業許可執照申請核發作業準 則(2006.07.26)	Regulations for Environmental Agent Vendor and Pest Control Operator Permit Application and Issuance(2006.07.26)
環境用藥販賣業及病媒防治許可 執照申請核發作業準 則(2006.07.26)	Regulations for Environmental Agent Vendor and Pest Control Operator Permit Application and Issuance(2006.07.26)
環境用藥專業技術人員設置管理 辦法(2006.07.26)	Regulations Governing the Employment of Environmental Agent Professional Technicians (2006.07.26)
環境用藥廣告管理辦 法(2006.07.25)	Regulations Governing the Advertising of Environmental Agents (2006.07.25)
環境用藥工廠設廠標 準(2006.07.10)	Environmental Agent Factory Establishment Standards (2006.07.10)
飲用水水源水質或淨水處理改善 計畫審核準則(2006.07.04)	Standards for Reviewing Improvement Plans Regarding Drinking Water Source Quality or Water Treatment(2006.07.04)
交通工具空氣污染物排放標 準(2006.06.30)	Vehicular Air Pollutant Emission Standards (2006.06.30)
環境用藥各項許可申請及檢驗收 費標準(2006.06.29)	Fee Collection Standards for Environmental Agents Permission Applications and Testing(2006.06.29)
廢棄物清理法(2006.05.30)	Waste Disposal Act (2006.05.30)
水污染防治法施行細 則(2006.04.14)	Water Pollution Control Act Enforcement Rules (2006.04.14)
	Water Pollution Control Act Enforcement Rules (2006.04.14)  Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants (2006.03.31)
則(2006.04.14) 進口汽車空氣污染物驗證核章辦	Regulations Governing the Certification and Authorization of Imported
則(2006.04.14) 進口汽車空氣污染物驗證核章辦 法(2006.03.31) 限制乾電池製造、輸入及販	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the
則(2006.04.14) 進口汽車空氣污染物驗證核章辦 法(2006.03.31) 限制乾電池製造、輸入及販 賣(2006.03.27)	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries(2006.03.27)
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27)	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries(2006.03.27)  Drinking Water Management Act(2006.01.27)
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27) 環境用藥管理法(2006.01.27) 光電材料及元件製造業空氣污染	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries(2006.03.27)  Drinking Water Management Act(2006.01.27)  Environmental Agents Control Act (2006.01.27)  Optoelectronic Material and Element Manufacturing Industry Air Pollution
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27) 環境用藥管理法(2006.01.27) 光電材料及元件製造業空氣污染管制及排放標準(2006.01.05) 固定污染源戴奧辛排放標	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants (2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries (2006.03.27)  Drinking Water Management Act (2006.01.27)  Environmental Agents Control Act (2006.01.27)  Optoelectronic Material and Element Manufacturing Industry Air Pollution Control and Emission Standards (2006.01.05)
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27) 環境用藥管理法(2006.01.27) 光電材料及元件製造業空氣污染管制及排放標準(2006.01.05) 固定污染源戴奧辛排放標準(2006.01.02) 土壤及地下水污染整治費收費辦	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries(2006.03.27)  Drinking Water Management Act(2006.01.27)  Environmental Agents Control Act (2006.01.27)  Optoelectronic Material and Element Manufacturing Industry Air Pollution Control and Emission Standards(2006.01.05)  Dioxin Emission Standards for Stationary Pollution Sources(2006.01.02)  Soil Pollution and Groundwater Pollution Remediation Fund Revenues and
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27) 環境用藥管理法(2006.01.27) 光電材料及元件製造業空氣污染管制及排放標準(2006.01.05) 固定污染源戴奧辛排放標準(2006.01.05) 土壤及地下水污染整治費收費辦法(2005.12.30) 有害事業廢棄物認定標	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants(2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries(2006.03.27)  Drinking Water Management Act(2006.01.27)  Environmental Agents Control Act (2006.01.27)  Optoelectronic Material and Element Manufacturing Industry Air Pollution Control and Emission Standards(2006.01.05)  Dioxin Emission Standards for Stationary Pollution Sources (2006.01.02)  Soil Pollution and Groundwater Pollution Remediation Fund Revenues and Expenditures, Safekeeping, and Utilization Regulations(2005.12.30)
則(2006.04.14) 進口汽車空氣污染物驗證核章辦法(2006.03.31) 限制乾電池製造、輸入及販賣(2006.03.27) 飲用水管理條例(2006.01.27) 環境用藥管理法(2006.01.27) 光電材料及元件製造業空氣污染管制及排放標準(2006.01.05) 固定污染源戴奧辛排放標準(2006.01.02) 土壤及地下水污染整治費收費辦法(2005.12.30) 有害事業廢棄物認定標準(2005.12.27) 交通工具空氣污染物排放標	Regulations Governing the Certification and Authorization of Imported Motor Vehicle Air Pollutants (2006.03.31)  General Explanation of Official Announcement of Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries (2006.03.27)  Drinking Water Management Act (2006.01.27)  Environmental Agents Control Act (2006.01.27)  Optoelectronic Material and Element Manufacturing Industry Air Pollution Control and Emission Standards (2006.01.05)  Dioxin Emission Standards for Stationary Pollution Sources (2006.01.02)  Soil Pollution and Groundwater Pollution Remediation Fund Revenues and Expenditures, Safekeeping, and Utilization Regulations (2005.12.30)  Standards for Defining Hazardous Waste (2005.12.27)

中小型廢棄物焚化爐戴奧辛管制及排放標準(2005.03.16)	Small and Medium-Sized Waste Incinerator Dioxin Control and Emission Standards(2005.03.16)
環境用藥各項許可申請及檢驗收 費標準(2005.01.17)	Fee Collection Standards for Environmental Agents Permission Applications and Testing(2005.01.17)
使用中汽車召回改正辦 法(2004.12.15)	In-Use Motor Vehicle Recall and Correction Regulations (2004.12.15)
公害糾紛處理法施行細 則(2004.11.24)	Public Nuisance Dispute Mediation Act Enforcement Rules (2004.11.24)
公害糾紛處理法施行細 則(2004.11.24)	Public Nuisance Dispute Mediation Act Enforcement Rules (2004.11.24)
鋼鐵業燒結工場戴奧辛管制及排放標準(2004.06.16)	Steel Industry Sintering Plant Dioxin Control and Emission Standards(2004.06.16)
廢棄物清理法(2004.06.02)	Waste Disposal Act (2004.06.02)
交通工具空氣污染物排放標 準(2003.12.10)	Vehicular Air Pollutant Emission Standards (2003.12.10)
放流水標準(2003.11.26)	Effluent Standards(2003.11.26)
資源回收再利用法施行細 則(2003.08.27)	Resource Recycling and Reuse Act Enforcement Rules (2003.08.27)
廢棄物焚化爐戴奧辛管制及排放標準(2003.08.20)	Waste Incinerator Dioxin Control and Emission Standards (2003.08.20)
環境影響評估法施行細 則(2003.08.13)	Environmental Impact Assessment Act Enforcement Rules (2003.08.13)
事業水污染防治措施管理辦 法(2003.07.30)	Industrial Water Pollution Control Measure Management Regulations(2003.07.30)
水污染防治法施行細 則(2003.07.30)	Water Pollution Control Act Enforcement Rules (2003.07.30)
空氣污染防制法施行細 則(2003.07.23)	Air Pollution Control Act Enforcement Rules (2003.07.23)
再生資源限制或禁止輸入輸出管理辦法(2003.07.02)	Management Regulations for the Restriction or Prohibition of the Import or Export of Renewable Resources (2003.07.02)
行政院環境保護署再生資源再生 利用管理辦法(2003.06.25)	EPA Renewable Resource Recovery Management Regulations(2003.06.25)
再生資源再使用管理辦 法(2003.06.25)	Renewable Resource Reuse Management Regulations (2003.06.25)
土壤及地下水污染整治費收費辦法(2003.05.07)	Fee Collection Regulations for Soil and Groundwater Pollution Remediation Fees (2003.05.07)
飲用水管理條例施行細 則(2003.04.09)	Drinking Water Management Act Enforcement Rules (2003.04.09)
飲用水管理條例(2003.01.08)	Drinking Water Management Act(2003.01.08)
環境影響評估法(2003.01.08)	Environmental Impact Assessment Act (2003.01.08)

飲用水管理條例(2003.01.08)	ENVIRONMENTAL PROTECTION ADMINISTRATION, EXECUTIVE YUAN, REPUBLIC OF CHINA DRINKING WATER MANAGEMENT STATUTE(2003.01.08)
環境基本法(2002.12.11)	Basic Environment Act (2002.12.11)
廢棄物清理法施行細 則(2002.11.20)	Waste Disposal Act Enforcement Rules (2002.11.20)
半導體製造業空氣污染管制及排放標準(2002.10.16)	Air Pollution Control and Emissions Standards for the Semiconductor Industry(2002.10.16)
煉鋼業電弧爐戴奧辛管制及排放 標準(2002.10.16)	Steelmaking Industry Electric Arc Furnace Dioxin Control and Emission Standards(2002.10.16)
應回收廢棄物稽核認證作業辦 法(2002.10.09)	Regulated Recyclable Waste Auditing and Certification Regulations(2002.10.09)
應回收廢棄物責任業者管理辦 法(2002.09.23)	Responsible Enterprise Regulated Recyclable Waste Management Regulations(2002.09.23)
資源回收再利用法(2002.07.03)	Resource Recycling and Reuse Act(2002.07.03)
公害糾紛處理法(2002.06.26)	Public Nuisance Dispute Mediation Act(2002.06.26)
空氣污染防制法(2002.06.19)	Air Pollution Control Act (2002.06.19)
海洋環境污染清除處理辦 法(2002.03.06)	ENVIRONMENTAL PROTECTION ADMINISTRATION, EXECUTIVE YUAN, REPUBLIC OF CHINA Marine Environment Pollution Clean-up and Disposal Regulations (2002.03.06)
海洋環境污染清除處理辦 法(2002.03.06)	Marine Environment Pollution Cleanup and Disposal Regulations(2002.03.06)
行政院環境保護署組織條 例(2002.01.30)	Organic Act of the Environmental Protection Administration, Executive Yuan(2002.01.30)
行政院環境保護署組織條 例(2002.01.30)	Organic Act of the Environmental Protection Administration, Executive Yuan(2002.01.30)
有害事業廢棄物認定標 準(2002.01.09)	Standards for Defining Hazardous Waste (2002.01.09)
土壤及地下水污染整治法施行細 則(2001.10.17)	Soil and Groundwater Pollution Remediation Act Enforcement Rules (2001.10.17)
海洋污染防治法施行細 則(2001.09.05)	Marine Pollution Control Act Enforcement Rules (2001.09.05)
環境用藥管理法施行細 則(2000.11.01)	Environmental Agents Control Act Enforcement Rules (2000.11.01)
海洋污染防治法(2000.11.01)	Marine Pollution Control Act (2000.11.01)
毒性化學物質管理法施行細 則(2000.10.25)	Toxic Chemical Substances Control Act Enforcement Rules (2000.10.25)
毒性化學物質運送管理辦 法(1999.09.29)	Toxic Chemical Substances Transportation Management Regulations(1999.09.29)
地面水體分類及水質標 準(1998.06.24)	Surface Water Classification and Water Quality Standards(1998.06.24)

行政院環境保護署環境保護人員	Organic Act of the Environmental Professionals Training Institute,
訓練所組織條例(1995.01.18)	Environmental Protection Administration, Executive Yuan(1995.01.18)
行政院環境保護署環境檢驗所組	Organic Act of the National Institute of Environmental Analysis,
織條例(1995.01.13)	Environmental Protection Administration, Executive Yuan(1995.01.13)

很抱歉,尚查無資料。

# 英譯法規內容

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法規名 稱(Title):

法規名 Waste Disposal Act Ch

发兽列即

公發布

2017.01.18

日(Date):

革(Legislative):

法規沿

- 1. Original 28 articles promulgated by presidential order on July 26, 1974.
- 2. Revisions to Articles 5, 6, 11, 15, 18 and 22 and addition of Article 24-1 promulgated by presidential order on April 9, 1980.
- 3. Revisions to all 36 articles of this Act promulgated by presidential order on November 20, 1985.
- 4. Revisions to Articles 4, 11 and 20 and addition of Articles 10-1 and 23-1 promulgated by presidential order on November 11, 1988.
- 5. Revisions to Articles 10-1, 23-1 and 31 promulgated by presidential order on March 28, 1997.
- 6. Revisions to Articles 5, 13, 17, 22 and 34 and addition of Article 34-1 promulgated by presidential order on July 14, 1999.
- 7. Revisions to Articles 4 and 35 promulgated by presidential order on January 19, 2000.
- 8. Revisions to all 77 articles of this Act promulgated by presidential order on October 24, 2001.
- 9. Revisions to Article 51 promulgated by presidential order on June 2, 2004.
- 10. Revisions to Articles 46 and 77 promulgated by presidential order on July 1, 2006.
- 11. Revisions to Articles 71 and 77 promulgated by presidential order on November 28, 2012.
- 12. Revisions of Articles 50-1 promulgated by presidential order on May 29,2013.
- 13. Revisions to Articles 2, 14, 28, 30, 31, 39, 41, 45, 46, 48, 52, 53, 55, 56 and 58 and addition of Article 2-1, 39-1, 63-1 promulgated by presidential order on January 18, 2017.

#### 法規內 文(Content):

#### **Chapter 1 General Principles**

#### Article 1

This Act is formulated for the effective clearance and disposal of waste, improvement of environmental sanitation and maintenance of public health. The regulations of other laws shall apply to those matters not regulated by this Act.

#### Article 2

For the purpose of this Act, "waste" means any movable solid or liquid substance or object:

- 1. Which is discarded:
- 2. Whose original purpose is weakened, given up, no longer existing, or unclear;
- 3. Which is resulted from construction, manufacturing, processing, repairing, selling, or other activities, and is not deliberately created;
- 4. Which is resulted from production process, with no feasible technology existing, and is of no economic or market value;
- 5. Which is announced as "waste" by central competent authority.

The waste referred to in the preceding paragraph is divided into "general waste" and "industrial waste."

- 1. General waste refers to waste that is not industrial waste.
- 2. Industrial waste refers to waste that is produced from industry activities (but excluding waste generated by the employees themselves), including "hazardous industrial waste" and "general industrial waste."

A. Hazardous industrial waste: waste produced by industry that is toxic or dangerous with the concentration or volume sufficient to influence human health or pollute the environment

B. General industrial waste: waste produced by industry that is not hazardous industrial waste.

The central competent authority in consultation with the central industry competent authority shall enact determination standards for the hazardous industrial waste referred to in the foregoing paragraph.

The disposal of ionizing radioactive waste shall be performed in accordance with the relevant atomic energy regulations.

The industry referred to in Paragraph 2 means agricultural, industrial and mining plants and sites, construction enterprises, medical organizations, public and private waste clearance and disposal organizations, joint industrial waste clearance and disposal organizations, laboratories of schools or agency groups and other enterprises designated by the central competent authority.

#### Article 2-1

Any product coming from industry activities shall be determined as waste when it is under any of the following circumstances:

- 1. The product is determined as of no economic or market value by the central competent authority, and is intended to be disposed of illegally or harmful to the environment and human health.
- 2. The product is not lawfully stored or used, and is intended to be disposed of illegally or causing pollution.
- 3. The reuse product is not used in accordance with this Act, and is intended to be disposed of illegally or causing pollution.

#### Article 3

"Designated clearance area" as referred to in this Act means a clearance area officially announced and designated by the enforcement authority based on environmental sanitation needs.

#### Article 4

"Competent authority" as referred to in this Act means the Environmental Protection Administration, Executive Yuan, at the central government level, the municipal government in special municipalities and the county or city government in counties or cities.

#### Article 5

"Enforcement authority" as referred to in this Act means the environmental protection bureau of a special municipality government, the environmental protection bureau of a county or city government and the public office of a rural township, urban township or city. The enforcement authority shall establish dedicated units for the performance of recycling, clearance, disposal and waste investigation work for general waste.

The enforcement authority shall be responsible for the planning of land to be used for the recycling, clearance and disposal of general waste, and shall coordinate with and grant preference to the relevant agencies for the acquisition of the land.

The recycling, clearance and disposal of general waste shall be performed by the environmental protection bureau of the special municipality government in special municipalities and by the environmental protection bureau of the provincial city in provincial cities. In counties, the recycling and clearance of general waste shall be performed by the public office of a rural township, urban township or city and the disposal of general waste shall be performed by the environmental protection bureau of the county; when necessary, the county may commission the public office of a rural township, urban township or city to perform disposal work.

The environmental protection bureaus of counties shall complete the adjustment of general waste work pursuant to the foregoing regulations prior to July 14, 2004 and shall be in centralized management of said work.

The central competent authority shall determine the general waste recycling items in Paragraph 2. However, special municipality, county and city competent authorities may add other general waste recycling items based on special requirements within their jurisdiction areas, and the added items shall be submitted to the central competent authority for future reference.

#### Article 6

When the competent authority or industry competent authority plans the establishment of waste disposal facilities pursuant to the regulations of this Act, for those circumstances in which the land to be used involves modifications to urban planning, the competent authority or industry competent authority shall coordinate with the urban planning competent authority and perform the modifications pursuant to Article 27 of the Urban Planning Act; for those circumstances in which the land involves modifications to the use of non-urban land, modifications and rezoning shall be carried out in accordance with the law after approval of the acquisition of the land through appropriation or allocation. Land for which rezoning as a waste disposal zone has been completed and that is public land may be allocated, or leased or sold to the founder, and shall not be subject to the restrictions of Article 25 of the Land Act.

#### Article 7

For the joint establishment of waste disposal sites and performance of waste clearance and disposal work, special municipality, county or city competent authorities may draft establishment management regulations, and, after receiving central competent authority approval, may establish a regional joint clearance and disposal unit.

#### Article 8

When existing waste storage, recycling, clearance or disposal facilities are caused to have insufficient power due to natural disaster, major accident or other urgent matters and there is concern of polluting the environment or influencing human health, the central competent authority shall cooperate with the central industry competent authority and relevant agencies and, after receiving Executive Yuan approval, may designate emergency waste disposal methods, facilities, sites and deadlines and shall not be subject to Article 28, Article 31, Paragraph 1, Subparagraph 1, Article 36, Article 39, Article 41 of this Act, Article 13 of the Water Pollution Control Act, Article 24 of the Air Pollution Control Act, Article 16 of the Environmental Impact Assessment Act, Article 15 of the Company Act, Article 8 of the Business Registration Act or restrictions related to land use controls of the Urban Planning Act, Regional Planning Act or Statute for Upgrading Industries.

#### Article 9

The competent authority may, on its own or through a commissioned enforcement authority, dispatch personnel bearing identification documents to enter a public or private premises or intercept waste or surplus earth and gravel clearance equipment to perform inspection or sampling of waste storage, clearance, disposal or reuse circumstances and order the provision of relevant information; waste or surplus earth and gravel clearance equipment shall carry in the vehicle verification documents recording the production source and disposal site of the waste or surplus earth and gravel to be provided for inspection. The competent authority or the commissioned enforcement authority, when performing an administrative inspection pursuant to the foregoing paragraph and there is one of the following circumstances, may detain the clearance equipment or disposal facilities or equipment and may order the owner or user of the clearance equipment or disposal facilities or equipment at issue to perform clearance or disposal within a limited time period. When necessary, the property or real estate of the owner may be used or have its use restricted or the necessary tap water, electricity or other power source of the place of business may cut off as punishment.

- There is concern of serious pollution from the waste, surplus earth and gravel, clearance equipment or disposal facilities or equipment of the public or private premises
- 2. There is concern of serious pollution from the waste or surplus earth and gravel carried by clearance equipment

The central competent authority shall determine relevant regulations for the procedures for the detention of clearance equipment or disposal facilities or equipment in the foregoing paragraph.

#### Article 10

The clearance equipment or disposal facilities or equipment detained pursuant to Paragraph 2 of the foregoing article shall be returned if there is already no concern of serious pollution from the waste or surplus earth and gravel its has stored, cleared, disposed of or reused, or after the owner or user of the clearance equipment or disposal facilities or equipment at issue properly performs clearance or disposal of the waste or

surplus earth and gravel and pays such related fees as fees for the towing and safekeeping of the clearance equipment or disposal facilities or equipment.

The period for the detention of the clearance equipment or disposal facilities or equipment shall be limited to one year. However, under special circumstances, this period may be extended once after receiving higher competent authority approval.

The special municipality, county or city competent authority shall determine fee collection methods and standards for such related fees as fees for the towing and safekeeping of the clearance equipment or disposal facilities or equipment in the first paragraph.

#### **Chapter 2 The Disposal of General Waste**

#### Article 11

With the exception of general waste that shall be cleared pursuant to the following regulations, general waste in designated clearance areas shall be cleared by the enforcement authority.

- 1. For land or buildings related to public sanitation, the owner, manager or user shall perform clearance.
- 2. For covered walkways or sidewalks connected to land or buildings, the owner, manager or user of the land or building at issue shall perform clearance.
- 3. For roadways or public spaces that are used for special purposes, the user shall perform clearance.
- 4. For general waste abandoned and left on site by the owner after the occurrence of a fire or disaster, the building owner or manager shall perform clearance; for those lacking the capacity to perform clearance, the enforcement authority shall perform clearance.
- 5. For general waste left after the demolition of a building, the original owner, manager or user shall perform clearance.
- 6. For the excrement and urine of livestock or poultry on roadways or other public premises, the owner or manager shall perform clearance.
- 7. For the sludge matter of septic tanks, the owner, manager or user shall perform clearance.
- 8. For the road surfaces and drainage gutters of public lanes or alleys with widths of four meters or less, the households on opposite sides or adjacent sides shall each perform clearance of half.
- 9. For roadway traffic islands, greenbelts, parks and other public premises, the management organization shall perform clearance.

#### Article 12

The transport, sorting, storage, discharge, methods, equipment and reuse of general waste recycling, clearance and disposal shall comply with the regulations of the central competent authority; the central competent authority shall determine regulations for these matters. The enforcement authority may, based on the special characteristics of designated clearance areas, add general waste sorting, storage and discharge regulations in the foregoing paragraph, and shall report these to the higher competent authority for future reference.

#### Article 13

Enforcement authorities at all levels shall, based on actual needs, install general waste recycling and storage equipment at appropriate locations and public premises.

#### Article 14

The enforcement authority shall be responsible for the clearance of general waste and shall perform appropriate sanitary disposal. However, for general waste produced outside of households, the enforcement authority may designate clearance methods and disposal premises.

For the clearance and disposal of general waste referred to in the foregoing paragraph, the enforcement authority may, after receiving approval from a higher competent authority, commission a public or private waste clearance and disposal organization or perform the clearance and disposal in accordance with the methods announced or approved by the central competent authority.

#### Article 15

For articles and the packaging and containers thereof that, after consumption or use, are sufficient to produce general waste possessing one of the following characteristics and cause concern of serious pollution to the environment, the manufacturer or importer of the articles and the packaging and containers thereof at issue or the manufacturer or importer of the raw materials shall bear responsibility for recycling, clearance and disposal and the vendor shall bear responsibility for recycling, clearance work.

- 1. Difficult to clear or dispose of
- 2. Contains a component that does not readily decompose over a long period
- 3. Contains a component that is a hazardous substance
- 4. Is valuable for recycling and reuse

The central competent authority shall officially announce the scopes for the articles and the packaging and containers thereof and the enterprises responsible for recycling, clearance and disposal in the foregoing paragraph.

#### Article 16

The enterprises responsible for recycling, clearance and disposal officially announced pursuant to Paragraph 2 of the foregoing article (herein referred to as the responsible enterprises) shall register with the competent authority; a manufacturer, based on the manufacturing volume for the current quarter, and an importer, based on the import volume reported to customs, shall, within fifteen days after the reporting and payment of business taxes every quarter, pay recycling, clearance and disposal fees in accordance with the fee rates approved by the central competent authority; these fees shall be used for the Resource Recycling Management Fund and a financial institution shall be commissioned for the collection and safekeeping of the fees; the central competent authority shall determine the collection, safekeeping and utilization regulations thereof.

When an importer in the foregoing paragraph reports its import volume to customs, it shall

When an importer in the foregoing paragraph reports its import volume to customs, it shall also report container materials and the other specifications of articles and containers designated by the central competent authority.

Those responsible enterprises for which manufactured or imported articles and the packaging and containers thereof are not discarded domestically or do not produce waste after use may submit relevant verification documents for a deduction of manufacturing volumes or import volumes or a refund of fees.

The central competent authority in consultation with the central industry competent authority shall determine management regulations for the registration, reporting, fee payment methods, procedures, deadlines, deductions, refunds and other binding matters for the responsible enterprises in Paragraph 1.

For the fee rates in Paragraph 1, the Resource Recycling Fee Rate Review Committee established by the central competent authority shall perform reviews based on materials, volumes, weights, impacts on the environment, reuse values, recycling, clearance and disposal costs, recycling, clearance and disposal ratios, auditing and collection costs, fund financial conditions, monetary amounts of recycling incentives, and other relevant factors and submit its review to the central competent authority for approval and official announcement; the central competent authority shall determine establishment regulations for the Resource Recycling Fee Rate Review Committee.

#### Article 17

The Resource Recycling Management Fund in Paragraph 1 of the foregoing article shall be used for the following purposes.

- 1. The payment of recycling, clearance and disposal subsidies
- 2. The provision of subsidies and incentives for recycling systems and reuse
- 3. The covering of expenses when the enforcement authority performs disposal on behalf of others
- 4. The covering of auditing and certification expenses of the impartial auditing and certification group selected and commissioned by the central competent authority
- 5. Other uses related to general waste resource recycling approved by the central competent authority

#### Article 18

For general waste that is produced after the consumption or use of the articles or the packaging and containers thereof officially announced pursuant to Article 15, Paragraph 2 (herein referred to as "regulated recyclable waste"), recycling, storage, clearance and disposal shall comply with the regulations of the central competent authority; the central competent authority shall determine recycling, storage, clearance and disposal method and facility standards.

An auditing and certification group shall perform the auditing and certification of recycling and disposal volumes for regulated recyclable waste in accordance with auditing and certification regulations; the central competent authority shall determine auditing and certification procedural regulations.

Regulated recyclable waste recycling and disposal enterprises of a certain scale or larger that are designated and officially announced by the central competent authority shall register with the competent authority and report recycling and disposal volumes and related operational circumstances.

The central competent authority shall determine management regulations for the scale, registration, registration of cancellation, reporting and other binding matters for recycling and disposal enterprises in the foregoing paragraph.

Responsible enterprises and recycling and disposal enterprises may apply to the Resource Recycling Management Fund for recycling, clearance and disposal subsidies in Subparagraph 1 of the foregoing article; subsidies shall be granted after Resource Recycling Management Fund approval of compliance with facility standards in Paragraph 1 and procedural regulations in Paragraph 2.

The central competent authority shall determine management regulations for applications and reviews for the recycling, clearance and disposal subsidies in the foregoing paragraph.

#### Article 19

A responsible enterprise designated and officially announced by the central competent authority shall mark articles or the packaging and containers thereof with relevant recycling labels; the central competent authority shall determine the scope of enterprises, the size of label designs, location and other binding matters for recycling labels.

A vendor of articles or the packaging and containers thereof designated and officially announced by the central competent authority shall, in accordance with the regulations of the central competent authority, install resource recycling facilities and perform recycling work; the central competent authority shall determine the scope of enterprises, the installation of facilities, specifications and other binding matters for resource recycling facilities and the performance of recycling work.

#### Article 20

The competent authority may dispatch personnel or commissioned professional personnel bearing identification documents to enter the premises of a responsible enterprise or vendor designated and officially announced pursuant to Article 16, Paragraph 1 or the foregoing article and the recycling, storage, clearance or disposal premises of a recycling or disposal enterprise designated and officially announced pursuant to Article 18, Paragraph 3 to check operating volumes or import volumes, buyers of articles or the packaging and containers thereof, raw material supply sources, recycling related labels, and recycling and disposal volumes for regulated recyclable waste, and to request receiving, production, sales and inventory receipts, account books, and relevant statements, and other production, sales, operating, and export and import information; when necessary, the tax collection competent authority may be requested to assist with checking.

#### Article 21

For those articles or the packaging and containers thereof for which there is concern of serious pollution to the environment, the central competent authority may officially announce the prohibition of use or the restriction of manufacturing, import, sales and use.

#### Article 22

The central competent authority may designate and officially announce categories of regulated recyclable waste to be recycled through recycling incentive methods and the monetary amounts of recycling incentives.

A vendor shall pay consumers in accordance with the officially announced monetary amounts of recycling incentives, and may not refuse.

Prior to March 28, 1997, surplus fees related to recycling and clearance of a joint recycling, clearance and disposal organization established by responsible enterprises or a fund established in accordance with relevant regulations shall be allocated to the Resource Recycling Management Fund and utilized in accordance with regulations.

#### Article 24

For the implementation of the clearance and disposal of general waste, a special municipality, county or city competent authority shall, based on clearance and disposal costs, collect fees from households and other non-industrial sources within designated clearance areas.

The central competent authority shall determine collection regulations for the collection methods, calculation methods, payment procedures, payment deadlines and other binding matters for the fees in the foregoing paragraph.

The special municipality, county or city competent authority may, in consideration of actual operational requirements, add fee collection regulations other than those in the foregoing paragraph and fee collection verification labels.

The special municipality, county or city competent authority shall determine and officially announce the amount for fee collection in Paragraph 1.

The addition of fee collection regulations pursuant to Paragraph 3 shall be reported to the central competent authority for future reference.

#### Article 25

The general waste clearance and disposal costs in Paragraph 1 of the foregoing article include, as relates to general waste clearance and disposal operations, management costs, labor costs, land use costs for disposal sites and plants, compensation expenses, operational and maintenance costs and average annual procurement costs based on usage limits for all clearance and disposal machinery, equipment and facilities, and restoration costs, and shall deduct income from general industrial waste clearance and disposal work performed on behalf of others and other income.

#### Article 26

Fees for the general waste clearance and disposal costs in the foregoing article shall be collected based on actual costs. However, fees for machinery, equipment, facilities and restoration costs shall be collected annually from 2001.

The special municipality, county or city competent authority shall collect fees annually from 2001 for the per-kiloton construction costs and restoration costs of privately-owned or operated general waste incinerators.

The special municipality, county or city competent authority shall have a savings account dedicated to deposits for the machinery, equipment, facilities and restoration costs in Paragraph 1 by 2001 and the construction costs in the foregoing paragraph and shall establish a General Waste Clearance and Disposal Fund by 2002. Funds deposited for clearance and disposal fees as of 2001 shall be transferred to the General Waste Clearance and Disposal Fund after its establishment.

The special municipality, county or city competent authority shall determine regulations for the establishment, utilization and management of the fund in the foregoing paragraph. The fund established pursuant to Paragraph 3 shall be utilized exclusively for the reinstallation of general waste clearance and disposal machinery, equipment and facilities and the restoration of general waste disposal sites and plants.

#### Article 27

The following acts are strictly prohibited within designated clearance areas.

- 1. The spitting of phlegm or betelnut juice or fiber or discarding of waste paper, cigarette butts, chewing gum, fruit or the skin, pit or juice thereof, or other general waste
- 2. The polluting of the ground, pools of water, drainage gutters, walls, beams or pillars, utility poles, trees, roadways, bridges or other fixed structures
- 3. The sunning or piling of articles that hinder sanitation and orderliness on roadsides, outside of houses or on roofs
- 4. The collection from waste clearance, disposal or storage tools, equipment or sites of articles that have been discarded; however, the collection of general waste recycling items designated pursuant to Article 5, Paragraph 6 shall not be subject to this restriction.

- 5. The discarding of hot ashes or embers, dangerous chemical substances or products, or explosive substances or products within waste storage equipment
- 6. The discarding of animal corpses in places other than waste storage equipment
- 7. Urinating or defecating in non-designated locations
- 8. The discarding of articles in drainage gutters
- 9. The raising of poultry or livestock that hinders nearby environmental sanitation
- 10. The posting or painting of advertisements that pollutes fixed structures
- 11. Other acts that pollute the environment officially announced by the competent authority

#### **Chapter 3 Disposal of Industrial Waste**

#### Article 28

The disposal of industrial waste, with the exception of that subject to reuse methods, shall be performed in accordance with the following methods:

- 1. Self-clearance and disposal.
- 2. Joint clearance and disposal: enterprises submit an application to the industry competent authority for permission for the establishment of a joint waste clearance and disposal organization to clear and dispose of the category of waste at issue.
- 3. Commissioned clearance and disposal:
- A. Commission a public and private waste clearance and disposal organization that has received competent authority permission for the clearance and disposal of the category of waste at issue to perform clearance and disposal.
- B. Commission the enforcement authority to perform clearance and disposal after receiving enforcement authority's consent.
- C. Commission a clearance and disposal facility installed by the industry competent authority itself or through its guidance to perform clearance and disposal.
- D. Commission a waste clearance and disposal facility installed by a public enterprise designated by the competent authority to perform clearance and disposal.
- E. Commission a clearance and disposal facility installed by a private organization that has signed an investment contract with the sponsoring authority pursuant to the Promotion of Private Participation in Infrastructure Projects Act to perform clearance and disposal.
- F. Commission a waste disposal facility of an enterprise receiving permission pursuant to the management regulations prescribed by Article 29, Paragraph 2 to perform disposal.

Enterprises designated and officially announced by the central competent authority shall

4. Other methods that receive central competent authority's permission.

employ professional technical personnel; for the enterprises adopting self-clearance and disposal of their waste, the management regulations governing the conditions, permission, permission deadlines and cancellation of the clearance equipment and disposal facilities and other matters required to be complied with shall be enacted by the central competent authority in conjunction with the central industry competent authority. The management regulations governing the conditions, classification, permission, permission deadlines, cancellation, hiring of professional technical personnel, operation, operational records of joint clearance and disposal organizations referred to in Paragraph 1, Subparagraph 2 and other matters required to be complied with shall be enacted by the central industry competent authority in conjunction with the central competent authority. The management regulations governing the hiring of professional technical personnel, operation, operational records of the waste clearance and disposal facilities set up through the guidance per Paragraph 1, Subparagraph 3, Item 3 and other matters required to be complied with shall be enacted by the central industry competent authority in consultation with relevant agencies.

The management regulations governing the hiring of professional technical personnel, operation and operational records of the waste clearance and disposal facilities set up per Paragraph 1, Subparagraph 3, Item 4 and 5 and other matters required to be complied with shall be enacted by the central competent authority in consultation with relevant agencies. In the case that the enforcement authority is entrusted to clear and dispose of general industrial waste as referred to in Paragraph 1, Subparagraph 3, Item 2, it shall not accept

the assignment until there is surplus disposal capacity left after disposing the following general waste. In addition, it shall collect fees in accordance with the industrial waste clearance and disposal fee standards enacted by the special municipality, country or city competent authority, and process the declaration in conjunction with the enterprise in question in accordance with Article 31, Paragraph 1, Subparagraph 2. The aforesaid "general waste" is as follows:

- 1. Waste which falls in the area designated for clearance.
- Waste which is required to be disposed of through regional alliance or cross-region cooperation in accordance with Article 7 of this Act and Article 24-1 of the Local Government Act.
- 3. Waste which is under the central competent authority's arrangement for disposal.

Facilities operated for the clearance and disposal of general waste or general industrial waste shall not simultaneously clear or dispose of hazardous industrial waste. Under the circumstances where the enforcement authority's disposal of the general waste referred to in Paragraph 6, Subparagraph 1 and 2 is not affected, the central competent authority may dispatch existing waste clearance and disposal facilities if necessary, and such dispatch shall not be rejected upon request.

The regulations governing the terms, methods, expenses of the dispatch referred to in the preceding paragraph and other matters to be complied with shall be enacted by the central competent authority.

#### Article 29

When there is surplus disposal capacity in an industrial waste disposal facility, it may be used by other enterprises with the permission of the competent authority with local jurisdiction, and it shall not be subject to the restrictions of Article 31, Paragraph 1, Subparagraph 1 or Article 41.

The competent authority in consultation with the central industry competent authority shall determine management regulations for conditions, permission procedures, permission deadlines and other binding matters for the surplus disposal capacity in the foregoing paragraph.

#### Article 30

When an enterprise commissions clearance and disposal of its waste, it shall take up joint liability with the commissioned agency for the clearance of the waste. If the commissioned agency fails to properly clear the waste and the commissioning enterprise does not exercise its due care, the commissioning enterprise and commissioned agency shall be liable for joint environmental clearance and improvement in terms of the waste. The determined elements of the exercise of the due care of the commissioning enterprise referred to in the foregoing paragraph, precautions, management measures and other related matters shall be enacted by the central competent authority.

#### Article 31

Enterprises of a certain scale that are designated and officially announced by the central competent authority shall perform the following matters within a certain time period demanded by the official announcement:

- Operations may begin only after the review and approval of an industrial waste disposal plan submitted to the special municipality, county or city competent authority or the organization commissioned by the central competent authority; this regulation shall also apply to the modification of matters related to the production and disposal of industrial waste.
- 2. In accordance with the format, items, content and frequency stipulated by the central competent authority, report to the special municipality, county or city competent authority via the Internet the circumstances regarding the production, storage, clearance, disposal, reuse, export, import, transit and transshipment of the waste at issue. However, those circumstances in which the central competent authority allows the submission of written reports shall not be subject to this restriction.
- 3. Industrial waste clearance and transport machinery designated and officially announced by the central competent authority shall be installed with real-time tracking systems in accordance with the specifications designated by the central

competent authority, and shall maintain normal operation.

The format of the industrial waste disposal plan referred to in subparagraph 1 of the foregoing paragraph and the items required to be stated in the plan shall be enacted by the central competent authority in consultation with the central industry competent authority. The regulations governing the review operation, change, cancellation and revocation of the industrial waste disposal plan referred to in subparagraph 1 of the foregoing paragraph and other matters required to be complied with shall be enacted by the central competent authority.

An enterprise referred to in Paragraph 1 that is required to follow the regulations to conduct an environmental impact assessment shall attach the industrial waste disposal plan to its submission of the documents related to the environmental impact assessment to the special municipality, county or city competent authority for review. After passing the environmental impact assessment review, the special municipality, county or city competent authority may grant approval directly.

Those that perform the clearance and disposal of industrial waste produced by an enterprise designated and officially announced per Paragraph 1 shall file their declaration according to Paragraph 1, Subparagraph 2.

#### Article 32

The industry competent authority, development unit or management unit of a newly-established industrial park or science park shall plan and install industrial waste disposal facilities within or outside of the park; the industrial park or science park at issue may start operations only after the completion of the installation of industrial waste disposal facilities. The industry competent authority, development unit or management unit of an existing industrial park or science park shall complete the installation of industrial waste disposal facilities within six months after the promulgation of revisions to this Act; after receiving central industry competent authority approval, the installation shall be completed no later than December 31, 2004.

#### Article 33

When an enterprise is unable to perform the disposal of industrial waste it has produced and there is no industrial waste disposal organization to be commissioned for disposal, the enterprise shall properly store the industrial waste it has produced. When necessary, the industry competent authority may collect fees from an enterprise in order to itself or through quidance install industrial waste disposal facilities or perform temporary storage.

#### Article 34

When an enterprise is unable to manage self-generated industrial waste and when there is no industrial waste management organization to be commissioned for management, the industry competent authority may in consultation with the central competent authority officially announce enterprises in designated area shall to send their industrial waste to industrial waste management facilities that are established by or through the guidance of the industry competent authority.

#### Article 35

For hazardous industrial waste that requires special treatment technology, the competent authority may in consultation with the central industry competent authority install appropriate facilities, and store, clear or dispose for them and collect essential fee. Hazardous waste in the foregoing paragraph shall be officially announced by the competent authority in consultation with the central industry competent authority.

#### Article 36

Methods and facilities for storage, clearance and disposal of industrial waste shall meet regulations designated by the central competent authority.

Standards for methods and facilities for storage, clearance and disposal of industrial waste in the foregoing paragraph shall be determined by the central competent authority.

#### Article 37

The operation and monitoring for methods and facilities for storage, clearance and disposal of industrial waste shall be recorded in details and kept for at least three years for future reference

The management regulations for categories, methods, frequency and other binding matters for the testing in the foregoing paragraph shall be determined by the central competent

authority.

#### Article 38

The import, export, transit and transshipment of industrial waste may commence only after receipt of permission granted by the special municipality, county or city competent authority; for hazardous industrial waste, additional approval from the central competent authority is necessary. However, this provision shall not apply to industrial waste used as industrial raw material as officially announced by the central competent authority after consultation with the industry competent authority.

The management regulations for the qualifications of the applicant, documents, review, permission, permission deadlines, cancellation and other binding matters for import, export, transit and transshipment of the industrial waste in the foregoing paragraph shall be determined by the central competent authority.

Industrial waste shall be banned from importation if one of the following circumstances applies; the category shall be determined by the central competent authority after consultation with the central industry competent authority.

- 1. Evidence exists that the waste will severely endanger human health or the living environment.
- 2. No appropriate treatment technology and equipment is domestically available for the waste.
- 3. The waste is to be directly solidified, landfilled, incinerated or disposed of at sea.
- 4. The waste cannot be properly disposed of domestically.
- 5. The waste is an obstruction to domestic waste management.

The import, export, transit or transshipment of general waste that is subject to the international conventions, such as the Basel Convention, may be performed pursuant to the foregoing three items.

#### Article 39

Reuse of industrial waste shall be processed in accordance with the regulations stipulated by the central industry competent authorities or central competent authority, and shall not be restricted by Article 28 or Article 41.

The management regulations governing the category, quantity, permission, permission deadlines, cancellation, records, declaration and labeling of the reused products of the reuse industrial waste referred to in the foregoing paragraph and other matters required to be complied with shall be enacted by the central industry competent authority in consultation with the central competent authority and the reuse industry competent authority. However, when the industrial waste involves the reuse of two or more industries, the central competent authority is responsible for enacting a unified regulation for reuse categories and management methods if considering it necessary.

#### Article 39-1

The central industry competent authority shall be responsible for the whereabouts of the reuse products which are designated by the central competent authority, and shall conduct environmental monitoring when necessary when:

- 1. The reuse products are used in sea or land reclamation;
- 2. The reuse products are used improperly and are likely to endanger the environment or human health; or
- 3. The central competent authority considers it necessary to strengthen the control of such reuse products.

The monitoring requirements, sampling frequency, sampling methods, testing methods and procedure, and other relevant matters of the aforesaid environmental monitoring shall be enacted by the central industry competent authority in consultation with the central competent authority and reuse industry competent authority.

#### Article 40

When an enterprise endangers human health or agricultural or fishery operations while storing, clearing or disposing of industrial waste, the competent authority shall promptly order it to make improvements and adopt emergency measures. When necessary, orders may be issued for the suspension of work or suspension of business.

# Chapter 4 The Management of Public and Private Waste Clearance and Disposal Organizations and Waste Analysis Laboratories

#### Article 41

Enterprises that engage in waste clearance or disposal shall submit public or private waste clearance and disposal organization permission applications to the special municipality, county or city competent authority or organization commissioned by the central competent authority, and only after the permission is granted shall the organization be commissioned for the clearance and disposal of waste. However, it is not limited to any of the following circumstances:

- 1. The recycling, clearance, disposal and reuse of general waste performed by the enforcement authority pursuant to Article 5, Paragraphs2 and 6 and Article 12, Paragraph 1.
- 2. The facilities or equipment prescribed by Article 8 for emergency disposal of the waste.
- 3. Clearance and disposal of the general waste according to the method announced or approved by the central competent authority as prescribed by Article 14, Paragraph 2.
- 4. Recycling, storage, clearance or disposal of general waste pursuant to Article 18, Paragraph 1.
- 5. The clearance machinery, disposal facilities or equipment referred to in Article 28, Paragraph 1, Subparagraph 2. Subparagraph 3, Item 2 to 5 and Subparagraph 4.
- 6. The disposal facilities installed by or through the guidance of the industry competent authority pursuant to Article 33 and Article 34.
- 7. The facilities installed by the central competent authority in conjunction with the central industry competent authority pursuant to Article 35, Paragraph 1.
- 8. Other matters announced by the central competent authority.

A copy of the permission document issued to the public or private waste clearance and disposal organization referred to in the foregoing paragraph shall be also sent to the central competent authority.

#### Article 42

The management regulations for conditions, self-owned facilities, classification, hiring of professional technical personnel, permission, permission deadlines, cancellation of permission, suspension of work, suspension of business, termination of business, resumption of business and other binding matters for public or private waste clearance and disposal organizations in Paragraph 1 of the foregoing article shall be determined by the central competent authority.

#### Article 43

Analysis laboratories may perform testing in this Act only after obtaining permission from the central competent authority.

The management regulations for the conditions, facilities, educational experience of analysis personnel, procedures for permit application, review, issuance and replacement, cancellation, suspension of business, resumption of business, termination of business, checking, evaluation and other binding matters shall be determined by the central competent authority.

#### Article 44

The management regulations for the qualifications of professional technical personnel, acquisition of qualification certification, training, cancellation and other binding matters in Article 28, Paragraphs 2 through 5 and Article 42 shall be determined by the competent authority in consultation with the central industry competent authority.

#### **Chapter 5 Incentives and Penalties**

For those that violate Article 12, Article 18, Paragraph 1, Article 28, Paragraphs 1 and 7, Article 36, Paragraph 1, Article 38, Paragraph 1, Article 39, Paragraph 1, or Article 41, Paragraph 1, thereby causing human death, permanent imprisonment or at least seven years' imprisonment shall be imposed and may be combined with a fine of no more than thirty million New Taiwan Dollars; thereby causing serious human injury, three to ten years' imprisonment shall be imposed and may be combined with a fine of no more than twenty five million New Taiwan Dollars; thereby endangering human health and causing illness, one to seven-year imprisonment shall be imposed and may be combined with a fine of no more than twenty million New Taiwan Dollars.

Two to seven years' imprisonment shall be imposed to those who forging or altering the fee collection verification labels referred to in Article 24, Paragraph 3, which may be combined with a fine of no more than ten million New Taiwan Dollars.

One to seven years' imprisonment shall be imposed to those who sell the fee collection verification labels referred to in the foregoing paragraph, which may be combined with a fine of no more than ten million New Taiwan Dollars.

#### Article 46

In any of the following circumstances, one to five years imprisonment shall be imposed and may be combined with a fine of no more than fifteen million New Taiwan Dollars:

- 1. Arbitrary disposal of hazardous waste.
- 2. The responsible person of the enterprise or relevant person fails to store, clear, dispose of or reuse waste pursuant to this Act, thereby causing environmental pollution.
- 3. Providing land refilling or waste piling without permission from the competent authority
- 4. Conducting waste storage, clearance, disposal without obtaining the waste clearance and disposal permission pursuant to Article 41, Paragraph 1; or storing, clearing and disposing of waste not in accordance with the content designated in the waste clearance and disposal permission.
- 5. Personnel of the enforcement authority authorize clearance and disposal of general waste to the enterprise without valid permission document; or authorize when knowing there is illegal conduct of clearance and disposal.
- 6. Responsible person or relevant personnel of a public or private waste disposal organization, or personnel of the enforcement authority issue a false certificate for the waste not being disposed of.

#### Article 47

In the case of the responsible person of the juridical person, representative of the juridical person or natural person, employees or other operational personnel who violate the foregoing two articles; the punishment shall be imposed not only on the offender, but the juridical person or natural person shall also be fined pursuant to the said articles.

#### Article 48

Any person who is obligated to make a declaration pursuant to this Act but gives untrue declaration based on the known untrue fact or provide untrue recordkeeping for business documents shall be sentenced an imprisonment of no more than three years, detained or imposed or concurrently imposed a fine of no more than ten million New Taiwan Dollars.

#### Article 49

In any of the following circumstances, a fine between sixty thousand and three hundred thousand New Taiwan Dollars shall be imposed and clearance machinery, disposal facilities or equipment may be confiscated.

- 1. The owner or user of the clearance machinery, disposal facilities or equipment fails to clear and dispose of its waste and remaining soil pursuant to the time period designated by the competent authority pursuant to Article 9, Paragraph 2.
- 2. The operator clearing and disposing of waste and remaining soils fails to carry certificates listing production source and disposal site of general waste, general industrial waste and remaining soils along with the vehicle.
- 3. The operator clearing and disposing of hazardous industrial waste fails to carry

certificates listing production source and disposal site of hazardous industrial waste along with the vehicle.

#### Article 50

In any of the following circumstances, a fine between twelve hundred and six thousand New Taiwan Dollars shall be imposed. If the violation continues after the end of the designated time period, then continuous daily fines shall be imposed.

- 1. Violation of Article 11, Paragraphs 1 to 7 when clearing general waste
- 2. Violation of Article 12
- 3. Any acts that are designated in any one paragraph of Article 27

#### Article 50-1

Violation of provisions designated in Article 27, Paragraph 1 regarding the spitting of betelnut juice or fiber shall be required to attend a four-hour class to help them break their habit of chewing betelnut.

Regulations governing the holding of the class referred to in the foregoing paragraph, and other binding matters shall be determined by the central competent authority.

#### Article 51

For the failure to pay recycling fees levied pursuant Article 16, Paragraph 1 after being notified to pay within a designated time period and failure to pay prior to the expiration date, compulsory enforcement shall be imposed; a noncompliance penalty between one to two times the original amount due shall be imposed. For the submission of false data, not only shall the amount due be paid, but a fine one to three times the amount due shall also be imposed; for failure to make payment prior to the expiration date, compulsory enforcement shall be imposed.

In any of the following circumstances, a fine between sixty thousand and three hundred thousand New Taiwan Dollars shall be imposed, and the violator shall be notified to make improvements within a designated time period, continuous daily fines shall be imposed when failure to make improvement within the designated time period.

- 1. Violation of regulations determined pursuant to Article 16, Paragraph 4 or Article 18, Paragraph 4
- 2. Violation of Article 18, Paragraphs 1 to 3 or Articles 19, 22 or 23
- 3. Without adequate reasons, evading, obstructing or refusing inspection or demanding regarding relevant information designated in Article 20.
- 4. Violation of regulations determined by the central competent authority pursuant to Article 21

Violations of central competent authority restrictions on sales and use in Article 21 shall be punished with a fine of between one thousand two hundred and six thousand New Taiwan Dollars. If the violation continues after the end of the designated time period, then continuous daily fines shall be imposed.

Serious noncompliance of the foregoing two paragraphs shall result in orders for the suspension of business for a time period between one month and one year, or partial or complete suspend of work.

#### Article 52

Those that violate Article 28, Paragraph 1, Article 31, Paragraphs 1 and 5, Article 34, Article 36, Paragraph 1, Article 39, or management regulations prescribed by Article 29, Paragraph 2 and Article 39-1, Paragraph 2 when storing, clearing, disposing of or reusing general industrial waste shall be imposed a fine in an amount between six thousand and three million New Taiwan Dollars. If they still fail to make any improvement after the demanded time limit, the fine will be repeatedly imposed.

#### Article 53

In any of the following circumstances, a fine between sixty thousand and ten million New Taiwan Dollars shall be imposed. If no improvement has been made after the demanded time limit, the fine will be repeatedly imposed. Serious violators may be ordered to suspend their work or business:

- 1. 1Storage, clearance, disposal or reuse of hazardous industrial waste that is in violation of Article 28, Paragraphs 1 and 7, Article 31, Paragraphs 1 and 5, Article 34, Article 39, or the management regulations prescribed by Article 29, Paragraph 2, and Article 39-1 Paragraph 2.
- 2. Storage, clearance or disposal of hazardous industrial waste that is in violation of Article 36, Paragraph 1.
- 3. Violation of Article 38, Paragraphs 1 and 3 or Article 38, Paragraph 4 and Article 38, Paragraph 1 or 3 shall be applied mutatis mutandis under Paragraph 1 or 3 of the same Article.

#### Article 54

If an enterprise fails to comply with an order to suspend work or suspend business made in accordance with this Act, the local competent authority may make a report to the central competent authority, which shall request the industry competent authority to order the enterprise to terminate business.

#### Article 55

In any of the following circumstances, a fine between six thousand and three million New Taiwan Dollars shall be imposed. If no improvement has been made after the demanded time limit, the fine will be repeatedly imposed:

- 1. The public or private waste clearance and disposal organization violates Article 12 or the management regulations prescribed by Article 42.
- 2. The designated and announced business violates Article 28, Paragraph 2 for hiring professional technical personnel or violates the management regulations prescribed by Article 28, Paragraph 2 in self-clearance and disposal of industrial waste.
- 3. The joint waste clearance and disposal organization and clearance and disposal facilities of the public or private organization violate the management regulations prescribed by Article 28, Paragraphs 3 to 5.
- 4. The operation and testing of the storage, clearance, and disposal of hazardous industrial waste violates the management regulations prescribed by Article 37, Paragraph 2.
- 5. The waste testing organization violates Article 43, Paragraph 1.

#### Article 56

Those that violate Article 37, Paragraph 1 or evade, impede or refuse, without due reason, the spot check, inspection, sampling or order for providing relevant information prescribed by Article 37, Paragraph 1 shall be imposed a fine between thirty thousand and five million New Taiwan Dollars.

#### Article 57

Enterprises that conduct industrial waste storage, clearance or disposal that violate provisions designated in Paragraph 1 of Article 41, shall be imposed a fine between sixty thousand and three hundred thousand New Taiwan Dollars and be ordered to suspend business.

#### Article 58

Those waste testing organizations and inspection and testing personnel that violate the management regulations prescribed by Article 43, Paragraph 2 and those waste professional technical personnel who violate the management regulations prescribed by Article 44 shall be imposed a fine between sixty thousand and one million New Taiwan Dollars.

#### Article 59

Without adequate reason, offenders that refuse to show identification upon request by an inspector shall be imposed a fine between six hundred and three thousand New Taiwan Dollars.

#### Article 60

Under any of the following circumstances, serious noncompliance addressed in Paragraph 3 of Article 51 and Article 53 under this Act applies.

- 1. Any person who violates the same provision under this Act and receive notice for improvement within a designated time period twice in a year, and continue to violate provisions under this Act.
- 2. Any person that illegally disposes of hazardous industrial waste.
- 3. Any person who causes serious environmental pollution when recycling, storing, clearing, disposing and reusing waste.
- 4. Any person that provides documents listing false information during application and reporting.
- 5. Other circumstances recognized by the competent authority

#### Article 61

The central competent authority shall determine the starting date, temporary suspension dates, termination date, improvement completion verification checks and other binding matters for consecutive daily fines referred to in this Act.

#### Article 62

The time limit given for making improvements or reporting under this Act shall not exceed a period of ninety days. However, under special circumstances, the offender may apply for extension from the special municipality, county or city competent authority.

#### Article 63

Penalties imposed in accordance with this Act shall be enforced by the enforcement authority; in circumstances of enforcement authority nonfeasance, the higher competent authority may enforce the Act on behalf of the enforcement authority.

#### Article 63-1

The limitation of the penalty imposed in accordance with the Act shall be determined according to the waste's pollution degree and characteristics and its hazardous degree, in which the penalty rules shall be enacted by the central competent authority.

If the benefit ill-gotten from the violation surpasses the maximum amount of the statutory fine, the penalty shall be aggregated within the scope of the ill-gotten benefit, which is not limited by the maximum amount of the statutory fine.

The determination and calculation regulations of the ill-gotten benefit referred to in the preceding paragraph shall be enacted by the central competent authority.

#### Article 64

Penalty and criminal responsibility aspects of a particular case shall be separately addressed.

#### Article 65

Failure to pay fines imposed in accordance with this Act shall be referred to the courts for compulsory enforcement.

#### Article 66

Continued failure to pay clearance and disposal fees pursuant to Article 24, after expiration of the time period designated for payment shall be referred to the courts for compulsory enforcement.

#### Article 67

For acts that violate this Act, the public may address detailed facts or submit proof to inform the local enforcement authority or competent authority.

For the informing action in the foregoing paragraph, if the competent authority or enforcement authority verifies that it is true and impose fines; as the fines reach specific amounts, may allot specific percentage of the actual collected fines as reward for the informants.

The informing action and rewarding regulations in the foregoing paragraph shall be determined by the special municipality, county or city competent authority. When the competent authority or enforcement authority conducts verification of the foregoing case, identification of the informants shall be kept confidential.

#### Article 68

Enterprise expense incurred from waste clearance shall be tax deductible. Enterprises that are in compliance with relevant regulations of this Act and with excellent performance in the area of waste clearance, reduction, recycling and reuse shall be rewarded; reward regulations shall be determined by the central competent authority in consultation with the central industry competent authority.

#### Article 69

Funds gained from selling recycled waste by the enforcement authority from waste recycling work shall be spent in specific purpose that is relevant to waste recycling and a specific percentage may be allotted as reward for waste recycling operators. Allocation percentage and exercising regulations of the fund in the foregoing paragraph gained from selling recycled waste shall be determined by the central competent authority. For the funds gained from conducting general waste recycling at the government agencies or public schools, a specific account at public financial organization shall be established and managed properly.

#### **Chapter 6 Supplementary Provisions**

#### Article 70

An enforcement authority, public or private waste clearance and disposal organization, joint clearance and disposal organization or enterprises providing management facilities pursuant to Article 29, Paragraph 1 may clear waste outside of its jurisdiction area. The special municipality, county or city competent authority shall not impose restriction.

#### Article 71

Where waste clearance and disposal conducted in noncompliance with regulations, the special municipality, county or city competent authority or the enforcement authority may order the enterprise, commissioned waste clearance and disposal organization, agent for illegal waste clearance and disposal organization, land owner, manager or user who allows illegal dumping of waste or serious misconduct that leads to illegal dumping of waste on its land to perform the clearance and disposal of the waste in specific time period. The special municipality, county or city competent authority or the enforcement authority may clear and dispose of the waste for them when no clearance or disposal is done within the designated time period and request for compensation for the clearance, improvement and necessary fees sustained from this action. Failure to make payment prior to the expiration date, compulsory enforcement shall be imposed. The special municipality, county or city competent authority or the enforcement authority may apply to the administrative court for probational lien or probational attachment without providing collateral.

The special municipality, county or city competent authority or the enforcement authority may clear and dispose of the waste pursuant to the foregoing provisions without the consent from land owner, manager or user, and force entering a public or private site to conduct relevant actions regarding sampling, inspection, clearance or disposal. The right to seek compensation for necessary expenses in Paragraph 1 shall take precedence over all creditor rights and collateral rights.

The special municipality, county or city competent authority or the enforcement authority may authorize a suitable public or private waste clearance and disposal organization when clearing and disposing of the waste designated in Paragraph 1.

#### Article 72

When a public and private premises violates this Act or related orders determined pursuant to the authorization of this Act and the competent authority is negligent in enforcement, victims or public interest groups may notify the competent authority in writing of the details of the negligent enforcement. For those competent authorities that have still failed to carry out enforcement in accordance with the law within sixty days after receipt of the written notification, the victims or public interest groups may name the competent authority at issue as a defendant and directly file a lawsuit with a high administrative court based on the negligent behavior of the competent authority in the execution of its duties in order to seek a ruling ordering the competent authority to execute its duties.

When issuing a verdict on the lawsuit in the foregoing paragraph, the high administrative court pursuant to its authority may order the defendant agency to pay the appropriate lawyer fees, monitoring and appraisal fees and other litigation costs to plaintiffs that have made specific contributions to the effective clearance and disposal of waste.

The central competent authority in consultation with the relevant agencies shall determine the format of the written notification in Paragraph 1.

Competent authorities at all government levels shall collect permission, certification, review or inspection fees when performing issuance and replacement of permission, certifications, managing application for review or testing pursuant to this Act.

The central competent authority in consultation with the relevant agencies shall determine fee collection standards for the foregoing paragraph.

#### Article 74

The competent authority and industry competent authority may designate or authorize professional organizations or relevant organizations to conduct research, training and management for waste management.

#### Article 75

The central competent authority shall determine waste testing methods and quality control items.

#### Article 76

The central competent authority shall determine the enforcement rules of this Act.

#### Article 77

This Act shall take effect on the date of promulgation.

This Act was revised on May 5, 2006, and shall take effect on July 1, 2006.

This Act was revised on November 13, 2012, and shall take effect on September 6, 2012.

▲ TOP

# 英譯法規內容

O oaout.epa.gov.tw/law/EngLawContent.aspx

法規名稱(Title): Responsible <u>En</u>terprise Regulated Recyclable Waste Management

Regulations Ch

波兽列即

公發布日(Date): 2011.12.28

法規沿

Promulgated by Environmental Protection Administration order

革(Legislative): on October 23, 2002.

Revisions to Articles 2, 5, 6, and 10 and addition of Articles 15-1 and 16-1 promulgated by Environmental Protection order on

April 21, 2005.

Revisions to entire text in 21 articles promulgated by Environmental Protection order on February 26, 2010.

Revisions to Articles 19, 20, and 21 promulgated by Environmental Protection order on December 28, 2011.

#### 法規內 文(Content):

#### Article 1

These Regulations are determined pursuant to Article 16, Paragraph 4 of the Waste Disposal Act (herein referred to as "this Act").

#### Article 2

Terms used in this Act are defined as follows.

- I. "Articles of responsibility" means those goods or their packaging and containers officially announced by the central competent authority pursuant to Article 15, Paragraph 2 of this Act, and the raw materials used in said goods, packaging or containers.
- II. "Operating volume":
- A. A manufacturing enterprise's operating volume shall be the sales volume of its articles of responsibility. However, the operating volume of enterprises manufacturing environmental sanitation agents constituting special sanitation agents shall be its production volume of finished products; and the operating volume of pesticide manufacturing enterprise shall be the imported volume of technical-grade pesticides.
- B. The operating volume of a container product manufacturing enterprise shall be the container purchase volume and container production volume. The operating volume of a container manufacturing enterprise or container importer shall be its container sales volume.
- C. The operating volume of a commissioned manufacturing enterprise producing goods or container products shall be its commissioned production volume of goods or container products.
- D. The operating volume of a bioplastic materials manufacturing enterprise shall be its bioplastic materials sales volume.
- III. "Import volume" means the volume of articles of res ponsibility imported from overseas by an importer, or the volume of articles of responsibility conveyed from the bonded scope delineated by the Science-based Industrial Park Establishment and Management Statutes or the Economic Processing Zone Establishment and Management Statutes to a non-bonded scope, or the volume of articles of responsibility cleared for domestic sale from bonded factories, bonded warehouses (including shipping centers) or logistics centers, but does not include the volume of articles of responsibility imported from overseas to the aforementioned bonded scope, bonded factories, bonded

warehouses (including shipping centers) or logistics centers.

#### Article 3

A responsible enterprise shall apply to the central competent authority to separately register articles of responsibility within two months of the first manufacture or import of the articles of responsibility.

#### Article 4

A responsible enterprise shall submit the following documents when applying for registration to the central competent authority.

- I. Responsible enterprise registration application form
- II. Photocopy of the personal identification document of the statutory responsible person
- III. Photocopies of relevant company or commercial registration documents or identification documents issued by the industry competent authority (those enterprises not requiring the documents designated in this item are exempt)
- IV. Photocopy of factory registration (Non-manufacturing enterprises not required to apply for a factory registration shall be exempt.)
- V. Other documents designated by the central competent authority

If the items to be registered in Subparagraphs 2 through 4 of the foregoing paragraph are changed after a responsible enterprise has completed registration in accordance with the regulations of the foregoing paragraph, the responsible enterprise shall submit a registration application form and photocopies of identification documents concerning the changed items to the central competent authority to apply for a change of registration within 60 days of when the change occurs.

#### Article 5

A responsible enterprise shall submit the following documents to the central competent authority to apply for cancellation of registration after ceasing to manufacture or import articles of responsibility, or in other circumstances determined by the central competent authority to allow exemption from listing:

- I. Registration cancellation application form (including affidavit)
- II. Photocopy of the personal identification document of the statutory responsible person
- III.Photocopies of relevant company or commercial registration documents or identification documents issued by the industry competent authority (Enterprises not requiring the documents designated in this item shall be exempt.)
- IV. A responsible enterprise that has ceased to manufacture or import articles of responsibility shall submit proof of payment of recycling, clearance, and disposal fees for the most recent quarter. A responsible enterprise determined by the central competent authority to be exempt from listing shall submit proof of payment of recycling, clearance, and disposal fees for the previous year up to the most recent quarter.
- V.Photocopies of identification documents for suspension of work, suspension of business, termination of business, or cancellation of company registration
- VI. Other documents as designated by the central competent authority

The central competent authority may on its own initiative cancel the registration of a responsible enterprises that has terminated business, been dissolved, or has otherwise been determined by the central competent authority to be exempt from listing.

A responsible enterprise whose registration has been canceled by the central competent authority in the two foregoing paragraphs shall be exempt from reporting and fee

payment pursuant to these Regulations. A responsible enterprise that resumes manufacturing or importing articles of responsibility, or that does not meet requirements for exemption from listing, shall re-register, and resume reporting and payment of fees pursuant to these Regulations.

#### Article 6

A responsible enterprise shall pay recycling, clearance and disposal fees based on the operating volume or import volume of articles of responsibility during the previous two months and the fee rate

approved by the central competent authority prior to the thirtieth day of each month into the receiving account of the financial institution designated by the central competent authority starting from the day officially announced by the central competent authority for the assumption of recycling, clearance and disposal responsibilities.

A responsible enterprise shall report to the central competent authority prior to the 30th day of each month operating volume or import volume and proof of recycling, clearance and disposal fee payment for articles of responsibility when reporting operating volume or import volume for the previous two months. However, container manufacturing enterprises, container importers, and commissioned manufacturing enterprises producing goods or container products that do not need to bear responsibility for payment of cleaning, clearance, and disposal fees shall be exempt from submitting proof of payment.

The operating volume or import volume report in the foregoing paragraph shall be transmitted via the Internet to the central competent authority's online reporting system, and an operating volume or import volume report for the articles of responsibility is not required. This restriction shall not apply, however, for those who have received the consent of the central competent authority to submit written reports.

#### Article 7

When a responsible enterprise fails to pay a fee or make a report pursuant to Paragraphs 1 or 2 of the foregoing article, and one of the following circumstances applies, the enterprise shall pay such fee or make such report by a deadline designated by the central competent authority; those that fail to pay or report shall be punished pursuant to Article 51, Paragraph 2 of this Act.

I. Operating volume or import volume is zero

II. Those enterprises that have already applied to the central competent authority for cancellation of registration pursuant to Article 5, Paragraph 1

#### **Article 8**

If the competent authority finds a responsible enterprise to have underpaid its recycling, clearance and disposal fees, the responsible enterprise shall be given a limited time in which to make payment. Responsible enterprises that fail to make such payment by the deadline shall be subject to a fine equal to the underpaid amount. However, the fine shall be equal to twice the underpaid amount for responsible enterprises that have previously been fined by the competent authority pursuant to Article 51, Paragraph 1 of this Act.

In those circumstances in which the competent authority finds a responsible enterprise to have reported untruthful information and underpaid recycling, clearance and disposal fees, the responsible enterprise shall be subject to a fine equal to the underpaid amount. However, the fine shall be equal to twice the underpaid amount for responsible enterprises that have been fined previously by the competent authority pursuant to Article 51, Paragraph 1 of this Act. The fine shall be equal to three times the underpaid amount for responsible enterprises that have been fined previously two or more times.

#### Article 9

When a responsible enterprise cannot pay in one lump sum the full amount for owed recycling, clearance and disposal fees prior to the payment deadline designated in this Act due to one of the following reasons, the responsible enterprise may submit prior to the

payment deadline to the central competent authority an application form along with relevant identification documents to make installment payments with interest compounded daily based on one-year time deposit interest rate of the Directorate General of the Postal Remittances and Savings Bank.

I.The responsible enterprise has suffered major property losses due to typhoon, earthquake, flood, landslides or other natural disaster, or other cause not attributable to the responsible enterprise

II. The responsible enterprise has been assessed supplementary recycling, clearance and disposal fees of NT\$300,000 or more following audit by the competent authority

#### Article 10

A responsible enterprise that has been required to pay cumulative recycling, clearance and disposal fees of less than NT\$100,000 during the previous six installment periods may submit operating volume or import volume reports for those six installment periods, with proof of payment of cleaning, clearance, and disposal fees, to the central competent authority in application to have its reporting and fee payment frequency changed to once each year.

Upon receiving the central competent authority's consent, a responsible enterprise in the foregoing paragraph shall, prior to January 30 of each year, pay cleaning, clearance, and disposal fees based on its not yet reported operating volume or import volume of articles of responsibility for the previous year and the fee rate approved by the central competent authority into a collection account at a financial institution designated by the central competent authority, and shall report its not yet reported operating volume or import volume for the previous year to the central competent authority. When reporting operating volume or import volume in written form, the responsible enterprise shall submit an operating volume or import volume and proof of payment of cleaning, clearance, and disposal fees.

A responsible enterprise in the foregoing paragraph that has been required to pay recycling, clearance and disposal fees of less than NT\$100,000 during the previous accounting year shall pay and report prior to March 30 of that year pursuant to Article 6.

#### Article 11

In those circumstances in which the articles of responsibility imported or manufactured by a responsible enterprise are not disposed of domestically or do not produce waste after use, the responsible enterprise may deduct the operating volume or import volume for such articles of responsibility upon submission of the following documents and receipt of the central competent authority's approval:

I. An operating volume or import volume report

II.Identification documents demonstrating that the articles of responsibility are not disposed of domestically or do not produce waste after use

III.An aggregate statement of the quantity of articles of responsibility not disposed of domestically to be deducted

IV. Other documents as designated by the central competent authority

#### Article 12

Regarding the volume of flat containers or non-flat disposable tableware sold to container product manufacturing enterprises, the plate vessel manufacturer or importer, or non-flat disposable tableware manufacturer or importer may submit an aggregate statement of sales volume deductions and sales invoice report in order to deduct its operating volume or import volume.

Regarding the volume of bioplastic materials or flat container sheet materials not sold to container, flat container sheet material, or non-flat disposable tableware manufacturing enterprises, the bioplastic material manufacturer or importer, or the flat container sheet

material importer may submit an aggregate statement of sales volume deductions and sales invoice report in order to deduct its operating volume or import volume.

#### Article 13

If a responsible enterprise overpays cleaning, clearance, and disposal fees, it may apply to the central competent authority for refund. However, the total amount of the refund shall be limited to the total amount paid by the responsible enterprise.

The refund in the foregoing paragraph shall be calculated on the basis of cleaning, clearance, and disposal fee rates corresponding to the dates on documents or sales invoices submitted pursuant to Articles 11 and 12. However, those enterprises that can prove the original deduction reporting and payment dates may have their fees calculated on the basis of the fee rate corresponding to the original reporting and payment dates.

#### Article 14

When the competent authority or its commissioned professional personnel performs an audit pursuant to article 20 of this Act, if the information provided by a responsible enterprise is untruthful, or if the enterprise fails to provide its full account books or information, the competent authority or its commissioned professional personnel shall use whichever of the following methods yields the highest operating volume or import volume to calculate the operating volume or import volume of the responsible enterprise:

- I.The operating volume or import volume calculated on the basis of raw materials (goods), personnel, utilities or equipment use, production rate or other data sufficient to provide evidence
- II. The operating volume or import volume calculated on the basis of relevant data from firms upstream or downstream of the responsible enterprise
- III. The operating volume or import volume calculated on the basis of the operating volume or import volume reported by a firm in the same industry with a similar amount of sales.
- IV. The operating volume or import volume calculated on the basis of the ratio of recycling, clearance and disposal fees to sales reported by a firm in the same industry with a similar amount of sales
- V.The operating volume or import volume calculated on the basis of the manufacturing volume of a firm in the same industry with similar machinery, equipment, manufacturing procedures, or raw materials
- VI. The operating volume or import volume calculated on the basis of information provided by the tax authority.

Complete account books in the foregoing paragraph shall conform to the regulations of the Commercial Accounting Act and Regulations for the Management of Profit-Seeking Enterprise Account Books and Receipts by Tax Collection Agencies.

# Article 15

A responsible enterprise shall preserve for future reference its operating volume or import volume reports, proof of recycling, clearance and disposal fee payment for its articles of responsibility, and proof of offsets for five years.

#### Article 16

A responsible enterprise that has completed registration pursuant to the Waste Article and Container Recycling, Clearance and Treatment Regulations prior to the enforcement of these Regulations shall not be required to register pursuant to this Act.

#### **Article 17**

With regard to the articles of responsibility of the flat container and non-flat, non-washable dining utensil and container manufacturing industry, the operating volume of such articles of responsibility manufactured after May 1, 2005 shall be the manufacturer's sales volume. However, the operating volume of such articles of responsibility manufactured before May 1, 2005 shall be the manufacturer's container production volume, which may be calculated as the container sheet purchase volume and production volume minus container manufacturing process losses.

#### Article 18

The central competent authority shall determine the format of documents and forms designated in these Regulations.

#### Article 19

(deleted)

#### Article 20

Those who violate the requirements of Article 3; Article 4, Paragraph 2; Article 5, Paragraph 3; Article 6, Paragraphs 1 and 2; Article 10, Paragraphs 2 and 3, and Article 15 shall be penalized pursuant to Article 51, Paragraph 2 of this Act.

#### Article 21

These Regulations shall take effect on the date of promulgation. However, revised Articles 19, 20, and 21 promulgated on December 28, 2011 shall take effect on January 1, 2012.

圖表附件(Attachments):

• 應回收廢棄物責任業者管理辦法.pdf

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# 英譯法規中文內容

Oaout.epa.gov.tw/law/EngLawContent.aspx

法規名稱(Title): 廢棄物清理法 英 家兽剜廊

公發布日(Date): 2017.01.18

法規內文(Content): 第一章總則

# 第1條

為有效清除、處理廢棄物,改善環境衛生,維護國民健康,特制定本法; 本法未規定者,適用其他有關法律之規定。

# 第2條

本法所稱廢棄物,指下列能以搬動方式移動之固態或液態物質或物品:

- 一、被拋棄者。
- 二、減失原效用、被放棄原效用、不具效用或效用不明者。
- 三、於營建、製造、加工、修理、販賣、使用過程所產生目的以外之產物。
- 四、製程產出物不具可行之利用技術或不具市場經濟價值者。
- 五、其他經中央主管機關公告者。

前項廢棄物,分下列二種:

- 一、一般廢棄物:指事業廢棄物以外之廢棄物。
- 二、事業廢棄物:指事業活動產生非屬其員工生活產生之廢棄物,包括 有害事業廢棄物及一般事業廢棄物。
  - (一)有害事業廢棄物:由事業所產生具有毒性、危險性,其濃度或數量足以影響人體健康或污染環境之廢棄物。
  - (二)一般事業廢棄物:由事業所產生有害事業廢棄物以外之廢棄物。

前項有害事業廢棄物認定標準,由中央主管機關會商中央目的事業主管機關定之。

游離輻射之放射性廢棄物之清理,依原子能相關法令之規定。

第二項之事業,係指農工礦廠(場)、營造業、醫療機構、公民營廢棄物 清除處理機構、事業廢棄物共同清除處理機構、學校或機關團體之實驗室 及其他經中央主管機關指定之事業。

# 第 2 條之 1

事業產出物,有下列情形之一,不論原有性質為何,為廢棄物:

- 一、經中央主管機關認定已失市場經濟價值,且有棄置或污染環境、危害人體健康之虞者。
- 二、違法貯存或利用,有棄置或污染環境之虞者。
- 三、再利用產品未依本法規定使用,有棄置或污染環境之虞者。

#### 第3條

本法所稱指定清除地區,謂執行機關基於環境衛生需要,所公告指定之清除地區。

# 第4條

本法所稱主管機關:在中央為行政院環境保護署;在直轄市為直轄市政府;在縣(市)為縣(市)政府。

#### 第5條

本法所稱執行機關,為直轄市政府環境保護局、縣(市)環境保護局及鄉(鎮、市)公所。

執行機關應設專責單位,辦理一般廢棄物之回收、清除、處理及廢棄物稽查工作。

執行機關應負責規劃一般廢棄物回收、清除、處理用地,並協同相關機關優先配合取得用地。

一般廢棄物之回收、清除、處理,在直轄市由直轄市政府環境保護局為之 ;在省轄市由省轄市環境保護局為之;在縣由鄉(鎮、市)公所負責回收 、清除,由縣環境保護局負責處理,必要時,縣得委託鄉(鎮、市)公所 執行處理工作。

中華民國九十三年七月十四日前,縣環境保護局應依前項規定完成一般廢棄物工作調整,由縣環境保護局統一處理。

第二項一般廢棄物回收項目,由中央主管機關定之。但直轄市、縣 (市) 主管機關得視轄區內特殊需要,增訂其他一般廢棄物回收項目,報請中央 主管機關備查。

#### 第6條

主管機關或目的事業主管機關依本法規定規劃設置廢棄物清理設施時,其 用地涉及都市計畫變更者,主管機關、目的事業主管機關應協調都市計畫 主管機關,依都市計畫法第二十七條規定辦理變更;涉及非都市土地使用 變更者,於報准徵收或撥用取得土地後,依法辦理變更編定。完成報編為 廢棄物清理專區之土地,其屬公有者,得辦理撥用或出租、讓售與興辦人 ,不受土地法第二十五條規定之限制。

#### 第7條

直轄市、縣(市)主管機關,為聯合設置廢棄物處理場,辦理廢棄物清除、處理工作,得擬訂設置管理辦法,報經中央主管機關核定,組設區域性聯合清除、處理單位。

#### 第8條

因天然災害、重大事故或其他急迫之情事,致現有廢棄物貯存、回收、清除、處理設施能量不足,而有污染環境或影響人體健康之虞時,中央主管機關應會同中央目的事業主管機關及有關機關,並報請行政院核准後,得指定廢棄物緊急清理之方法、設施、處所及其期限,不受第二十八條、第三十一條第一項第一款、第三十六條、第三十九條、第四十一條、水污染防治法第十三條、空氣污染防制法第二十四條、環境影響評估法第十六條、公司法第十五條、商業登記法第八條及都市計畫法、區域計畫法、促進產業升級條例有關土地使用管制規定之限制。

# 第9條

主管機關得自行或委託執行機關派員攜帶證明文件,進入公私場所或攔檢廢棄物、剩餘土石方清除機具,檢查、採樣廢棄物貯存、清除、處理或再利用情形,並命其提供有關資料;廢棄物、剩餘土石方清除機具應隨車持有載明廢棄物、剩餘土石方產生源及處理地點之證明文件,以供檢查。主管機關或其委託之執行機關依前項規定為行政檢查時,有下列情形之一者,得扣留清除機具、處理設施或設備,並得命該清除機具、處理設施或設備之所有人或使用人限期清除處理。必要時,並得使用或限制使用其動

- 產、不動產或斷絕其營業所必須之自來水、電力或其他能源之處分:
- 一、公私場所之廢棄物、剩餘土石方或其清除機具、處理設施或設備有嚴重污染之虞。
- 二、清除機具裝載之廢棄物、剩餘土石方有嚴重污染之虞。
  前項扣留清除機具、處理設施或設備作業相關規定,由中央主管機關定之

第 10 條

依前條第二項規定扣留之清除機具、處理設施或設備,於其所貯存、清除 、處理或再利用之廢棄物、剩餘土石方已無嚴重污染之虞,或該清除機具 、處理設施或設備之所有人或使用人妥善清除處理其廢棄物、剩餘土石方 ,並於繳納清除機具、處理設施或設備拖吊及保管等相關費用後發還。 扣留清除機具、處理設施或設備之期間,以一年為限。但情形特殊者,得

報經上級主管機關核准延長一次。

第一項之清除機具、處理設施或設備拖吊及保管等相關費用之收費方式及標準,由直轄市、縣(市)主管機關定之。

#### 第二章 一般廢棄物之清理

# 第11條

- 一般廢棄物,除應依下列規定清除外,其餘在指定清除地區以內者,由執 行機關清除之:
- 一、土地或建築物與公共衛生有關者,由所有人、管理人或使用人清除。
- 二、與土地或建築物相連接之騎樓或人行道,由該土地或建築物所有人、管理人或使用人清除。
- 三、因特殊用途,使用道路或公共用地者,由使用人清除。
- 四、火災或其他災變發生後,經所有人拋棄遺留現場者,由建築物所有人或管理人清除;無力清除者,由執行機關清除。
- 五、建築物拆除後所遺留者,由原所有人、管理人或使用人清除。
- 六、家畜或家禽在道路或其他公共場所便溺者,由所有人或管理人清除。
- 七、化糞池之污物,由所有人、管理人或使用人清除。
- 八、四公尺以內之公共巷、弄路面及水溝,由相對戶或相鄰戶分別各半清 除。

九、道路之安全島、綠地、公園及其他公共場所,由管理機構清除。

# 第 12 條

一般廢棄物回收、清除、處理之運輸、分類、貯存、排出、方法、設備及 再利用,應符合中央主管機關之規定,其辦法,由中央主管機關定之。 執行機關得視指定清除地區之特性,增訂前項一般廢棄物分類、貯存、排 出之規定,並報其上級主管機關備查。

#### 第 13 條

各級執行機關,應視實際需要,於適當地點及公共場所,設一般廢棄物回 收、貯存設備。

# 第14條

一般廢棄物,應由執行機關負責清除,並作適當之衛生處理。但家戶以外所產生者,得由執行機關指定其清除方式及處理場所。

前項一般廢棄物之清除、處理,執行機關得報經上級主管機關核准,委託公民營廢棄物清除處理機構或依中央主管機關公告或核准之方式辦理。

#### 第15條

物品或其包裝、容器經食用或使用後,足以產生下列性質之一之一般廢棄物,致有嚴重污染環境之虞者,由該物品或其包裝、容器之製造、輸入或原料之製造、輸入業者負責回收、清除、處理,並由販賣業者負責回收、清除工作。

- 一、不易清除、處理。
- 二、含長期不易腐化之成分。
- 三、含有害物質之成分。
- 四、具回收再利用之價值。

前項物品或其包裝、容器及其應負回收、清除、處理責任之業者範圍,由中央主管機關公告之。

#### 第 16 條

依前條第二項公告之應負回收、清除、處理責任之業者(以下簡稱責任業者),應向主管機關辦理登記;製造業應按當期營業量,輸入業應按向海關申報進口量,於每期營業稅申報繳納後十五日內,依中央主管機關核定之費率,繳納回收清除處理費,作為資源回收管理基金,並應委託金融機構收支保管;其收支保管及運用辦法,由中央主管機關定之。

前項輸入業於向海關申報進口量時,應同時申報容器材質及其他經中央主管機關指定之物品或容器規格等資料。

製造或輸入之物品或其包裝、容器,不在國內廢棄或使用後不產生廢棄物之責任業者,得檢具相關證明文件扣抵營業量、進口量或辦理退費。

第一項責任業者辦理登記、申報、繳費方式、流程、期限、扣抵、退費及其他應遵行事項之管理辦法,由中央主管機關會商中央目的事業主管機關定之。

第一項之費率,由中央主管機關所設之資源回收費率審議委員會依材質、容積、重量、對環境之影響、再利用價值、回收清除處理成本、回收清除處理率、稽徵成本、基金財務狀況、回收獎勵金數額及其他相關因素審議,並送中央主管機關核定公告;資源回收費率審議委員會設置辦法,由中央主管機關定之。

# 第17條

前條第一項之資源回收管理基金,應使用於下列用途:

- 一、支付回收清除處理補貼。
- 二、補助獎勵回收系統、再生利用。
- 三、執行機關代清理費用。
- 四、經中央主管機關評選委託之公正稽核認證團體,其執行稽核認證費用

五、其他經中央主管機關同意,與一般廢棄物資源回收有關之用途。

# 第18條

依第十五條第二項公告之物品或其包裝、容器,經食用或使用後產生之一 般廢棄物(以下簡稱應回收廢棄物),其回收、貯存、清除、處理,應符 合中央主管機關之規定;其回收、貯存、清除、處理方法及設施標準,由 中央主管機關定之。

稽核認證團體應依稽核認證作業辦法之規定,辦理應回收廢棄物之回收處理量稽核認證;其稽核認證作業辦法,由中央主管機關定之。

經中央主管機關指定公告一定規模以上應回收廢棄物之回收、處理業,應 向主管機關辦理登記,並申報其回收、處理量及相關作業情形。

前項回收、處理業之規模、登記、註銷、申報及其他相關應遵行事項之管理辦法,由中央主管機關定之。

責任業者及回收、處理業,得向資源回收管理基金申請前條第一款之回收 清除處理補貼,經資源回收管理基金審核符合第一項設施標準及第二項作 業辦法之規定後,予以補貼。

前項回收清除處理補貼之申請、審核管理辦法,由中央主管機關定之。

#### 第19條

中央主管機關指定公告責任業者,應於物品或其包裝、容器上標示回收相關標誌;其業者範圍、標誌圖樣大小、位置及其他應遵行事項,由中央主管機關定之。

經中央主管機關指定公告之物品或其包裝、容器之販賣業者,應依中央主 管機關之規定,設置資源回收設施,並執行回收工作;其業者範圍、設施 設置、規格及其他應遵行事項,由中央主管機關定之。

# 第 20 條

主管機關得派員或委託專業人員攜帶證明文件進入依第十六條第一項、前條指定公告責任業者、販賣業者之場所及依第十八條第三項指定公告回收、處理業之回收、貯存、清除、處理場所,查核其營業量或進口量、物品或其包裝、容器之銷售對象、原料供應來源、回收相關標誌、應回收廢棄物回收處理量,並索取進貨、生產、銷貨、存貨憑證、帳冊、相關報表及其他產銷營運或輸出入之相關資料;必要時,並得請稅捐稽徵主管機關協助查核。

物品或其包裝、容器有嚴重污染環境之虞者,中央主管機關得予以公告禁用或限制製造、輸入、販賣、使用。

#### 第22條

中央主管機關得指定公告以回收獎勵金方式,回收應回收廢棄物之種類及其回收獎勵金數額。

販賣業應依公告之回收獎勵金數額支付消費者,不得拒絕。

# 第 23 條

中華民國八十六年三月二十八日前,由責任業者組成之共同回收清除處理組織及依相關法規成立之基金會賸餘回收清除相關費用,應移撥資源回收管理基金,依規定運用。

#### 第24條

直轄市、縣(市)主管機關為執行一般廢棄物之清除、處理,應依清除處理成本,向指定清除地區內家戶及其他非事業徵收費用。

前項費用之徵收方式、計算方式、繳費流程、繳納期限及其他應遵行事項之徵收辦法,由中央主管機關定之。

直轄市、縣 (市) 主管機關得衡酌實際作業需要,增訂前項以外之費用徵收相關規定及收費證明標誌。

第一項徵收費用之數額,由直轄市、縣 (市) 主管機關訂定公告之。第三項所增訂費用徵收相關規定,應報中央主管機關備查。

# 第 25 條

前條第一項之一般廢棄物清除處理成本,包括一般廢棄物清除、處理業務之管理成本、人工成本、處理場(廠)土地使用成本、回饋金與各項清除處理機具或設備、設施之操作維護成本及依使用年限每年平均應負擔之購置成本、復育成本,並扣除代清除、處理一般事業廢棄物及其他收入。

# 第 26 條

前條之一般廢棄物清除處理成本,應依實際成本收費。但機具、設備、設施、復育成本,自中華民國九十年起分年徵收。

直轄市、縣(市)主管機關針對民有民營一般廢棄物焚化廠之每公噸建設成本、復育成本,應自中華民國九十年起分年徵收。

第一項之機具、設備、設施、復育成本及前項之建設成本,直轄市、縣(市)主管機關應自中華民國九十年起專款專儲,並於中華民國九十一年成立一般廢棄物清除處理基金。中華民國九十年專儲之清除處理費,應於基金成立後轉存。

前項基金之設置運用及管理辦法,由直轄市、縣(市)主管機關定之。

第三項設置之基金,應專款專用於一般廢棄物清除處理機具或設備、設施 之重置及一般廢棄物處理場(廠)之復育。

# 第27條

在指定清除地區內嚴禁有下列行為:

- 一、隨地吐痰、檳榔汁、檳榔渣,拋棄紙屑、煙蒂、口香糖、瓜果或其皮、核、汁、渣或其他一般廢棄物。
- 二、污染地面、池溏、水溝、牆壁、樑柱、電桿、樹木、道路、橋樑或其 他土地定著物。
- 三、於路旁、屋外或屋頂曝晒、堆置有礙衛生整潔之物。
- 四、自廢棄物清除、處理及貯存工具、設備或處所中搜揀經廢棄之物。但 搜揀依第五條第六項所定回收項目之一般廢棄物,不在此限。
- 五、拋置熱灰燼、危險化學物品或爆炸性物品於廢棄物貯存設備。
- 六、棄置動物屍體於廢棄物貯存設備以外處所。
- 七、隨地便溺。
- 八、於水溝棄置雜物。
- 九、飼養禽、畜有礙附近環境衛生。
- 十、張貼或噴漆廣告污染定著物。
- 十一、其他經主管機關公告之污染環境行為。

第三章 事業廢棄物之清理

第28條

事業廢棄物之清理,除再利用方式外,應以下列方式為之:

- 一、自行清除、處理。
- 二、共同清除、處理:由事業向目的事業主管機關申請許可設立清除、處理該類廢棄物之共同清除處理機構清除、處理。
- 三、委託清除、處理:
- (一) 委託經主管機關許可清除、處理該類廢棄物之公民營廢棄物清除處理機構清除、處理。
- (二) 經執行機關同意,委託其清除、處理。
- (三)委託目的事業主管機關自行或輔導設置之廢棄物清除處理設施清除 、處理。
- (四) 委託主管機關指定之公營事業設置之廢棄物清除處理設施清除、處理。 理。
- (五) 委託依促進民間參與公共建設法與主辦機關簽訂投資契約之民間機構設置之廢棄物清除處理設施清除、處理。
- (六)委託依第二十九條第二項所訂管理辦法許可之事業之廢棄物處理設施處理。
- 四、其他經中央主管機關許可之方式。

經中央主管機關指定公告之事業,應置專業技術人員,其採自行清除、處理事業廢棄物之事業,其清除機具及處理設施或設備應具備之條件、許可、許可期限、廢止及其他應遵行事項之管理辦法,由中央主管機關會同中央目的事業主管機關定之。

第一項第二款共同清除處理機構應具備之條件、分級、許可、許可期限、 廢止、專業技術人員設置、營運、操作紀錄與其他應遵行事項之管理辦法 ,由中央目的事業主管機關會同中央主管機關定之。

第一項第三款第三目所輔導設置之廢棄物清除處理設施應具備之專業技術人員設置、營運、操作紀錄與其他應遵行事項之管理辦法,由中央目的事業主管機關會商相關機關定之。

第一項第三款第四目及第五目所設置之廢棄物清除處理設施應具備之專業技術人員設置、營運、操作紀錄與其他應遵行事項之管理辦法,由中央主管機關會商相關機關定之。

第一項第三款第二目執行機關受託清除處理一般事業廢棄物,應於處理下列一般廢棄物後,仍有餘裕處理能量,始得為之,並依直轄市、縣(市)主管機關所定事業廢棄物代清除處理收費標準收費,並配合該事業依第三十一條第一項第二款規定辦理申報:

- 一、屬指定清除地區內者。
- 二、屬依第七條及地方制度法第二十四條之一規定之區域性聯合及跨區域 合作處理者。
- 三、屬中央主管機關統一調度者。
- 一般廢棄物或一般事業廢棄物之清除處理設施,不得合併清除、處理有害 事業廢棄物。

中央主管機關於不影響執行機關處理第六項第一款及第二款一般廢棄物情形下,於必要時得統一調度使用現有廢棄物清除處理設施,被調度者不得拒絕。

前項統一調度之條件、方式、費用及其他應遵循事項之辦法,由中央主管機關定之。

# 第29條

事業之廢棄物處理設施之處理容量有餘裕時,得經處理設施所在地主管機 關許可,提供其他事業使用,不受第三十一條第一項第一款、第四十一條 之限制。

前項餘裕處理量之提供條件、許可程序、許可期限及其他應遵行事項之管理辦法,由中央主管機關會商中央目的事業主管機關定之。

# 第30條

事業委託清理其廢棄物,應與受託人就該廢棄物負連帶清理責任。如受託者未妥善清理,且委託事業未盡相當注意義務者,委託事業應與受託者就該廢棄物負連帶清理及環境改善責任。

前項委託事業之相當注意義務之認定要件、注意事項、管理措施及其他相關事項之準則,由中央主管機關定之。

#### 第31條

經中央主管機關指定公告一定規模之事業,應於公告之一定期限辦理下列 事項:

一、檢具事業廢棄物清理計畫書,送直轄市、縣(市)主管機關或中央主管機關委託之機關審查核准後,始得營運;與事業廢棄物產生、清理

有關事項變更時,亦同。

- 二、依中央主管機關規定之格式、項目、內容、頻率,以網路傳輸方式, 向直轄市、縣 (市) 主管機關申報其廢棄物之產出、貯存、清除、處 理、再利用、輸出、輸入、過境或轉口情形。但中央主管機關另有規 定以書面申報者,不在此限。
- 三、中央主管機關指定公告之事業廢棄物清運機具,應依中央主管機關所 定之規格,裝置即時追蹤系統並維持正常運作。

前項第一款事業廢棄物清理計畫書之格式及應載明事項,由中央主管機關 會商中央目的事業主管機關定之。

第一項第一款事業廢棄物清理計畫書核准之審查作業、變更、撤銷、廢止 及其他應遵行事項之辦法,由中央主管機關定之。

第一項事業依規定應實施環境影響評估者,於提報環境影響評估相關文件 時,得一併檢具事業廢棄物清理計畫書,送直轄市、縣(市)主管機關審 查。俟環境影響評估審查通過後,由直轄市、縣(市)主管機關逕予核准

清除、處理第一項指定公告之事業所產生之事業廢棄物者,應依第一項第 二款規定辦理申報。

#### 第32條

新設工業區及科學園區之目的事業主管機關、開發單位或管理單位,應於 區內或區外規劃設置事業廢棄物處理設施;並於事業廢棄物處理設施設置 完成後,該工業區及科學園區始得營運。

現有工業區及科學園區之目的事業主管機關、開發單位或管理單位,應於 本法修正通過後六個月內,規劃完成事業廢棄物之處理設施,經中央目的 事業主管機關核准後,最遲於中華民國九十三年十二月三十一日完成設置

#### 第33條

事業無法自行處理其所產生之事業廢棄物,亦無事業廢棄物處理機構可供 委託處理時,事業應妥善貯存其所產生之事業廢棄物。必要時,目的事業 主管機關得向事業收取費用,自行或輔導設置事業廢棄物處理設施處理或 暫時貯存之。

12/24

#### 第34條

事業無法自行清理其所產生之事業廢棄物,亦無事業廢棄物處理機構可供 委託處理時,中央目的事業主管機關得會商中央主管機關,指定公告特定 地區之事業,應將其事業廢棄物,送至中央目的事業主管機關自行或輔導 設置之事業廢棄物處理設施處理。

# 第35條

中央主管機關,對於需經特殊技術處理之有害事業廢棄物,得會同中央目的事業主管機關,設置適當設施,代為貯存、清除或處理,並收取必要費用。

前項有害事業廢棄物,由中央主管機關會同中央目的事業主管機關公告之

# 第 36 條

事業廢棄物之貯存、清除或處理方法及設施,應符合中央主管機關之規定

前項事業廢棄物之貯存、清除、處理方法及設施標準,由中央主管機關定之。

#### 第37條

事業對於有害事業廢棄物貯存、清除、處理之操作及檢測,應作成紀錄妥 善保存三年以上,以供查核。

前項檢測之項目、方法、頻率及其他應遵行事項之管理辦法,由中央主管機關定之。

# 第38條

事業廢棄物之輸入、輸出、過境、轉口,應向直轄市、縣(市)主管機關申請核發許可文件,始得為之;其屬有害事業廢棄物者,並應先經中央主

管機關之同意。但事業廢棄物經中央主管機關會商目的事業主管機關公告 屬產業用料需求者,不在此限。

前項事業廢棄物之輸入、輸出、過境、轉口之申請資格、文件、審查、許可、許可期限、廢止及其他應遵行事項之管理辦法,由中央主管機關定之

事業廢棄物有下列情形之一者,禁止輸入;其種類,由中央主管機關會商中央目的事業主管機關公告之:

- 一、有嚴重危害人體健康或生活環境之事實。
- 二、於國內無適當處理技術及設備。
- 三、直接固化處理、掩埋、焚化或海抛。
- 四、於國內無法妥善清理。
- 五、對國內廢棄物處理有妨礙。

屬國際公約列管之一般廢棄物之輸入、輸出、過境、轉口,準用前三項規定辦理。

#### 第39條

事業廢棄物之再利用,應依中央目的事業主管機關或中央主管機關規定辦理,不受第二十八條、第四十一條之限制。

前項再利用之事業廢棄物種類、數量、許可、許可期限、廢止、紀錄、申報、再利用產品之標示及其他應遵行事項之管理辦法,由中央目的事業主管機關會商中央主管機關、再利用用途目的事業主管機關定之。但涉及二個以上目的事業共通性再利用之事業廢棄物,經中央主管機關認定有統一訂定再利用種類及管理方式之必要者,其管理辦法由中央主管機關定之。

# 第 39 條之 1

再利用產品有下列情形之一,經中央主管機關指定公告者,由中央目的事業主管機關負責其流向追蹤管理,必要時並實施環境監測:

- 一、用於填海或填築土地者。
- 二、有不當利用、污染環境或危害人體健康之虞者。
- 三、其他經中央主管機關認定需加強管制者。

前項環境監測之監測項目、採樣頻率、樣品採樣方法、檢測方法與程序及其他應遵行事項之辦法,由中央目的事業主管機關會商中央主管機關、再

利用用途目的事業主管機關定之。

#### 第 40 條

事業於貯存、清除或處理事業廢棄物,危害人體健康或農、漁業時,主管機關應立即命其改善,並採取緊急措施。必要時,得命其停工或停業。

# 第四章公民營廢棄物清除處理機構及廢棄物檢驗測定機構之管理 第41條

從事廢棄物清除、處理業務者,應向直轄市、縣 (市) 主管機關或中央主管機關委託之機關申請核發公民營廢棄物清除處理機構許可文件後,始得受託清除、處理廢棄物業務。但有下列情形之一者,不在此限:

- 一、執行機關依第五條第二項、第六項、第十二條第一項辦理一般廢棄物 之回收、清除、處理、再利用。
- 二、依第八條規定緊急清理廢棄物所指定之設施或設備。
- 三、依第十四條第二項規定依中央主管機關公告或核准之方式清除、處理 一般廢棄物。
- 四、依第十八條第一項規定回收、貯存、清除、處理一般廢棄物。
- 五、第二十八條第一項第二款、第三款第二目至第五目、第四款之清除機 具、處理設施或設備。
- 六、目的事業主管機關依第三十三條、第三十四條規定自行或輔導設置之 處理設施。
- 七、中央主管機關會同中央目的事業主管機關依第三十五條第一項設置之設施。
- 八、其他經中央主管機關公告者。

前項公民營廢棄物清除處理機構許可文件之核發,應副知中央主管機關。

# 第 42 條

前條第一項規定之公民營廢棄物清除處理機構應具備之條件、自有設施、分級、專業技術人員設置、許可、許可期限、廢止許可、停工、停業、歇業、復業及其他應遵行事項之管理辦法,由中央主管機關定之。

#### 第 43 條

檢驗測定機構應取得中央主管機關核發許可證,始得辦理本法規定之檢驗

前項檢驗測定機構之條件、設施、檢驗測定人員學經歷、許可證之申請、審查、核(換)發、廢止、停業、復業、歇業、查核、評鑑等程序及其他應遵行事項之管理辦法,由中央主管機關定之。

## 第 44 條

第二十八條第二項至第五項、第四十二條專業技術人員之資格、合格證書 取得、訓練、廢止及其他應遵行事項之管理辦法,由中央主管機關會同中 央目的事業主管機關定之。

# 第五章獎勵及處罰

### 第 45 條

違反第十二條、第十八條第一項、第二十八條第一項、第七項、第三十六條第一項、第三十八條第一項、第三十九條或第四十一條第一項規定,因而致人於死者,處無期徒刑或七年以上有期徒刑,得併科新臺幣三千萬元以下罰金;致重傷者,處三年以上十年以下有期徒刑,得併科新臺幣二千五百萬元以下罰金;致危害人體健康導致疾病者,處一年以上七年以下有期徒刑,得併科新臺幣二千萬元以下罰金。

偽造、變造第二十四條第三項收費證明標誌者,處二年以上七年以下有期 徒刑,得併科新臺幣一千萬元以下罰金。

販賣前項收費證明標誌者,處一年以上七年以下有期徒刑,得併科新臺幣 一千萬元以下罰金。

# 第 46 條

有下列情形之一者,處一年以上五年以下有期徒刑,得併科新臺幣一千五百萬元以下罰金:

- 一、任意棄置有害事業廢棄物。
- 二、事業負責人或相關人員未依本法規定之方式貯存、清除、處理或再利 用廢棄物,致污染環境。

- 三、未經主管機關許可,提供土地回填、堆置廢棄物。
- 四、未依第四十一條第一項規定領有廢棄物清除、處理許可文件,從事廢棄物貯存、清除、處理,或未依廢棄物清除、處理許可文件內容貯存、清除、處理廢棄物。
- 五、執行機關之人員委託未取得許可文件之業者,清除、處理一般廢棄物 者;或明知受託人非法清除、處理而仍委託。
- 六、公民營廢棄物處理機構負責人或相關人員、或執行機關之人員未處理 廢棄物,開具虛偽證明。

# 第 47 條

法人之負責人、法人或自然人之代理人、受僱人或其他從業人員,因執行 業務犯前二條之罪者,除處罰其行為人外,對該法人或自然人亦科以各該 條之罰金。

#### 第 48 條

依本法規定有申報義務,明知為不實之事項而申報不實或於業務上作成之 文書為虛偽記載者,處三年以下有期徒刑、拘役或科或併科新臺幣一千萬 元以下罰金。

#### 第 49 條

有下列情形之一者,處新臺幣六萬元以上三十萬元以下罰鍰,並得沒入清 除機具、處理設施或設備:

- 一、清除機具、處理設施或設備之所有人或使用人未於主管機關依第九條 第二項所定期限內清除處理其廢棄物、剩餘土石方。
- 二、清除廢棄物、剩餘土石方者,未隨車持有載明一般廢棄物、一般事業 廢棄物、剩餘土石方產生源及處理地點之證明文件。
- 三、清除有害事業廢棄物者,未隨車持有載明有害事業廢棄物產生源及處理地點之證明文件。

#### 第 50 條

有下列情形之一者,處新臺幣一千二百元以上六千元以下罰鍰。經限期改善,屆期仍未完成改善者,按日連續處罰:

- 一、不依第十一條第一款至第七款規定清除一般廢棄物。
- 二、違反第十二條之規定。
- 三、為第二十七條各款行為之一。

# 第 50 條之 1

違反第二十七條第一款之隨地吐檳榔汁、檳榔渣之規定者,應接受四小時 之戒檳班講習。

前項戒檳班講習及其他應遵行事項之辦法,由中央主管機關定之。

#### 第 51 條

未依第十六條第一項規定繳納回收清除處理費者,經限期繳納,屆期仍未 繳納者,移送強制執行,並處應繳納費用一倍至二倍之罰鍰;提供不實申 報資料者,除追繳應繳納之回收清除處理費外,並處應繳納費用一倍至三 倍之罰鍰,屆期仍未繳納者,移送強制執行。

有下列情形之一者,處新臺幣六萬元以上三十萬元以下罰鍰;經限期改善 ,屆期仍未完成改善者,按日連續處罰:

- 一、違反依第十六條第四項或第十八條第四項所定辦法。
- 二、違反第十八條第一項至第三項、第十九條、第二十二條或第二十三條 規定。
- 三、無故規避、妨礙或拒絕第二十條之查核或索取有關資料規定。
- 四、違反第二十一條中央主管機關規定之禁用或限制製造、輸入之規定者

違反第二十一條中央主管機關規定之限制販賣、使用規定者,處新臺幣一千二百元以上六千元以下罰鍰。經限期改善,屆期仍未完成改善者,按日連續處罰。

第一項及第二項情節重大者,並得處一個月以上一年以下停業處分,或命其部分或全部停工。

第 52 條

貯存、清除、處理或再利用一般事業廢棄物,違反第二十八條第一項、第 三十一條第一項、第五項、第三十四條、第三十六條第一項、第三十九條 規定或依第二十九條第二項、第三十九條之一第二項所定管理辦法者,處 新臺幣六千元以上三百萬元以下罰鍰。經限期改善,屆期仍未完成改善者 ,按次處罰。

#### 第 53 條

有下列情形之一者,處新臺幣六萬元以上一千萬元以下罰鍰。經限期改善 ,屆期仍未完成改善者,按次處罰。情節重大者,並得命其停工或停業:

- 一、貯存、清除、處理或再利用有害事業廢棄物違反第二十八條第一項、 第七項、第三十一條第一項、第五項、第三十四條、第三十九條規定 或依第二十九條第二項、第三十九條之一第二項所定管理辦法。
- 二、貯存、清除或處理有害事業廢棄物,違反第三十六條第一項規定。
- 三、違反第三十八條第一項、第三項規定或第三十八條第四項準用同條第 一項或第三項規定。

# 第 54 條

事業不遵行依本法所為停工或停業處分者,當地主管機關得報請中央主管機關轉請目的事業主管機關,予以歇業處分。

#### 第 55 條

有下列情形之一者,處新臺幣六千元以上三百萬元以下罰鍰,並限期令其 改善,屆期仍未完成改善者,得按次處罰:

- 一、公民營廢棄物清除處理機構違反第十二條規定或依第四十二條所定管 理辦法。
- 二、指定公告之事業違反第二十八條第二項應置專業技術人員或自行清除 處理事業廢棄物違反依第二十八條第二項所定管理辦法。
- 三、廢棄物共同清除處理機構,清除處理設施所屬之公營事業或民間機構 違反依第二十八條第三項至第五項所定管理辦法。
- 四、有害事業廢棄物貯存、清除、處理之操作及檢測違反依第三十七條第二項所定管理辦法。

五、廢棄物檢驗測定機構違反第四十三條第一項規定。

# 第 56 條

違反第三十七條第一項規定或無故規避、妨礙或拒絕第九條第一項之攔檢 、檢查、採樣或命令提供有關資料者,處新臺幣三萬元以上五百萬元以下 罰鍰。

#### 第 57 條

從事廢棄物貯存、清除或處理業務,違反第四十一條第一項規定者,處新臺幣六萬元以上三十萬元以下罰鍰,並命其停止營業。

#### 第 58 條

廢棄物檢驗測定機構、檢驗檢測人員違反依第四十三條第二項所定管理辦法、廢棄物專業技術人員違反依第四十四條所定管理辦法者,處新臺幣六萬元以上一百萬元以下罰鍰。

# 第59條

執行稽查人員請求違反本法之人提示身分證明,無故拒絕者,處新臺幣六百元以上三千元以下罰鍰。

# 第60條

本法第五十一條第三項、第五十三條所稱情節重大,係指有下列情形之一者:

- 一、違反本法同一規定,一年內經二次限期改善,仍繼續違反本法規定者
- 二、非法棄置有害事業廢棄物者。
- 三、回收、貯存、清除、處理、再利用廢棄物,嚴重污染環境者。
- 四、申請及申報文件虛偽不實者。
- 五、其他經主管機關認定者。

#### 第61條

本法所稱按日連續處罰,其起算日、暫停日、停止日、改善完成認定查驗及其他應遵行事項,由中央主管機關定之。

# 第62條

依本法限期改善或申報,其改善或申報期間,不得超過九十日。但情形特殊者,得申請直轄市、縣(市)主管機關准予延長。

#### 第 63 條

本法所定行政罰,由執行機關處罰之;執行機關應作為而不作為時,得由上級主管機關為之。

#### 第 63 條之 1

依本法處罰鍰者,其額度應依污染程度、特性及危害程度裁處;其裁罰準則,由中央主管機關定之。

其違法所得之利益超過法定罰鍰最高額者,得於所得利益之範圍內酌量加 重裁處,不受法定罰鍰最高額之限制。

前項所得利益認定、核算辦法,由中央主管機關定之。

# 第 64 條

依本法處罰鍰案件,涉及刑事責任者,應分別處罰。

# 第 65 條

依本法所處之罰鍰拒不繳納者,移送強制執行。

# 第66條

未依第二十四條規定繳納一般廢棄物清除處理費者,經限期繳納,屆期仍未繳納者,移送強制執行。

#### 第67條

對於違反本法之行為,民眾得敘明事實或檢具證據資料,向所在地執行機關或主管機關檢舉。

主管機關或執行機關對於前項檢舉,經查證屬實並處以罰鍰者,其罰鍰金額達一定數額時,得以實收罰鍰總金額收入之一定比例,提充檢舉獎金予檢舉人。

前項檢舉及獎勵辦法,由直轄市、縣(市)主管機關定之。

主管機關或執行機關為前項查證時,對檢舉人之身分應予保密。

# 第68條

事業清理廢棄物所支出之費用,應予財稅減免。

事業遵守本法有關規定,辦理廢棄物清理及資源減量、回收再利用績效優 良者,應予獎勵;其獎勵辦法,由中央主管機關會商中央目的事業主管機 關定之。

#### 第69條

執行機關執行廢棄物回收工作,變賣所回收廢棄物之所得款項,應專款專用於辦理廢棄物回收工作,並得提撥一定比例作為從事廢棄物回收工作人 員之獎勵金。

前項回收廢棄物變賣所得款項提撥比例及運用辦法,由中央主管機關定之

政府機關、公立學校辦理一般廢棄物回收所得款項,應於公庫設置專戶,妥為管理運用。

# 第六章附則

#### 第70條

執行機關、公民營廢棄物清除處理機構、共同清除處理機構處理或依第二十九條第一項提供處理設施之事業,得清理轄區以外之廢棄物,直轄市、縣(市)主管機關不得限制之。

#### 第71條

不依規定清除、處理之廢棄物,直轄市、縣(市)主管機關或執行機關得命事業、受託清除處理廢棄物者、仲介非法清除處理廢棄物者、容許或因重大過失致廢棄物遭非法棄置於其土地之土地所有人、管理人或使用人,限期清除處理。屆期不為清除處理時,直轄市、縣(市)主管機關或執行機關得代為清除、處理,並向其求償清理、改善及衍生之必要費用。屆期未清償者,移送強制執行;直轄市、縣(市)主管機關或執行機關得免提供擔保向行政法院聲請假扣押、假處分。

直轄市、縣(市)主管機關或執行機關依前項規定代為清除、處理廢棄物時,得不經土地所有人、管理人或使用人同意,強制進入公私場所進行有關採樣、檢測、清除或處理等相關措施。

第一項必要費用之求償權,優於一切債權及抵押權。

直轄市、縣(市)主管機關或執行機關代為清除、處理第一項廢棄物時,得委託適當公民營廢棄物清除處理機構清除、處理之。

#### 第72條

公私場所違反本法或依本法授權訂定之相關命令,而主管機關疏於執行時,受害人民或公益團體得敘明疏於執行之具體內容,以書面告知主管機關。主管機關於書面告知送達之日起六十日內仍未依法執行者,受害人民或公益團體得以該主管機關為被告,對其怠於執行職務之行為,直接向高等行政法院提起訴訟,請求判令其執行。

高等行政法院為前項判決時,得依職權判命被告機關支付適當律師費用、 偵測鑑定費用或其他訴訟費用予對有效清除、處理廢棄物有具體貢獻之原 告。

第一項之書面告知格式,由中央主管機關會商有關機關定之。

#### 第73條

各級主管機關依本法核(換)發許可文件、證照、受理審查、檢驗,應收取許可費、證照費、審查費或檢驗費。

前項收費標準,由中央主管機關會商有關機關定之。

# 第74條

主管機關、目的事業主管機關得指定或委託專責機構、相關機關,辦理廢棄物研究、訓練及管理之有關事宜。

# 第75條

廢棄物檢測方法及品質管制事項,由中央主管機關定之。

# 第76條

本法施行細則,由中央主管機關定之。

# 第77條

本法自公布日施行。

本法中華民國九十五年五月五日修正之條文,自九十五年七月一日施行。本法中華民國一百零一年十一月十三日修正之條文,自一百零一年九月六日施行。

▲ TOP

# Taiwan experiencing recycling industry boom



http://www.recyclingproductnews.com/article/21487/taiwan-experiencing-recycling-industry-boom

# Da Fon leads way with innovative plastics recycling business

September 9, 2015

Da Fon is a leading recycling company based out of Taiwan that creates reusable plastic flakes and granules from consumer waste

In recent years, Taiwan has been experiencing a new kind of boom. Specifically, the number of recycling firms in Taiwan has grown from about 100 in the 1980s and 1990s to more than 1,600 at present, and these firms are busy turning heaps of waste into billions of dollars. According to Taiwan's Industrial Development Bureau of the Ministry of Economic Affairs, recyclers earned US\$2.2 billion in revenue in 2014, up from US\$1 billion a decade ago. In addition, almost every elementary school in Taiwan has now implemented environmental education programs into their curriculums. The result? Most Taiwanese youngsters are now able to tell their parents that 5 PET bottles can make a recycled bag; that 3 PS lunch boxes can be the raw material for a ruler; or even that 1 kilogram of gold can be recycled from 80,000 used computers.

The success of Taiwan's waste reduction and recycling programs has made them a green model for many countries. Out of all Taiwan's main recycling services, however, plastic recycling has drawn the most worldwide attention. For example, Taiwan was able to take great pride in the so-called "eco-fabric" that was used by local companies to make the jerseys for soccer teams competing in the World Cup in both 2010 and 2014.

From football jerseys to wigs to building bricks, plastic recycling in Taiwan is breathing new life into plastic waste, creating a booming new business that is also environmentally friendly. Taiwan started recycling plastic more than a decade ago, as a result of growing environmental concerns, and today it boasts recycling rates of about 73 percent, according to Taiwan's Environmental Protection Administration. In 2014 alone, nearly 180,000 tons of used plastic was collected and turned into raw materials worth US\$140 million.

Da Fon, one of the most innovative recycling companies in Taiwan, has, in fact, become a role model for the industry. From recycling, sorting, processing, shredding, manufacturing,

and even designing, Da Fon provides a one-stop solution as well as an economically and environmentally sustainable alternative to plastics produced from petrochemicals, thanks to its high-quality post-consumer ABS, HIPS, PP, filled PP, and HDPE products.

Over the past 15 years, **Da Fon has established 35 service stations across Taiwan**, as well as a factory to manufacture reprocessed granules, a research and development department, and a resource recycling center. These facilities have enabled Da Fon to transform the plastics industry's traditional supply chain. **What's more, every step in the process is open to the public, to visit or even participate in**. As a matter of fact, the success of Da Fon relies heavily on the involvement of the public. Simply put, **Da Fon believes that all waste is misplaced resources, and most importantly, that public awareness makes recycling possible.** 

Today, Da Fon's recycling stations are no longer just places for people or partner organizations to recycle waste. These recycling stations have, in fact, become educational centers as well as show rooms for products featuring reusable flakes and granules, in addition to products made from reborn raw materials.

In the past, working with discarded goods was not really considered to be a noble calling. However, most of the members of Da Fon's staff are in their 30s, and interestingly enough, they are actually quite proud of themselves. "Collecting junk can be cool," said C.H. Juan, the engineer of Da Fon's Resources Circulation Department.

Thanks to its many advances, Da Fon is now able to export both its experience and plastics to the rest of the world. Da Fon is also able to give its clients the certainty that their plastics are always handled in compliance with legitimate standards and legislation. Specifically, Da Fon's reprocessed granules have been certified by the SGS Carbon Footprint Verified Certificate, the TUV Recycled Material Verified Certificate, the Plastic Industry Development Center (PIDC) Post-Consumer-Recycled (PCR) Plastics Verified Certificate, and most important of all, the EuCertPlas Certificate, which works in conjunction with Germany's Blue Angel program and allows the Blue Angel label to be applied to certain applications and products.

An environmentally sustainable alternative to plastics produced from petrochemicals, Da Fon produces high-quality post-consumer ABS, HIPS, PP, filled PP, and HDPE products.

# Da Fon Environmental Technology Co., Ltd.

No.287, Chongde 9th Rd. Beitun District Taichung City 406, Taiwan (R.O.C.)

E-mail: <u>info@df-recycle.com.tw</u>
 Website: <u>www.df-recycle.com</u>

# Hong Kong's mounting plastic waste calls for more recyclers and container deposits

scmp.com/comment/letters/article/2121434/hong-kongs-mounting-plastic-waste-calls-more-recyclers-and-container

11/25/2017



I urge the Hong Kong government to implement laws for refundable deposits on plastic drink containers. This is a necessary step to tackle our plastic waste problem.

**HK Morning Briefing** 

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The amount of plastic waste created has increased rapidly since 1950. Hong Kong already discards 206 tonnes of polyethylene terephthalate (PET) plastic and non-PET plastic bottles every day. Our landfills are filling up quickly. By the end of this decade, the three existing landfills will be full, and we would need to allocate an extra 400 hectares for new landfill sites to meet our waste disposal needs up to 2030.

Most importantly, plastic waste can harm the environment, by making its way into marine animals and causing damage to the ecosystem, as well as to humans who consume sea animals. Birds, turtles and sea creatures can get tangled in plastic bags or die from eating plastic debris. We need a more sustainable way to deal with plastic waste. A refundable charge would encourage people to buy fewer drinks in plastic bottles and recycle them more, so minimise the environmental impact of plastic waste.

However, this would also require the government to increase the number of plastic recycling firms.

The Plastic Resources Recycling Centre (PRCC) in Tuen Mun would carry out public education and promote recycling through on-site demonstration of turning waste plastics into reusable materials. It also assisted the local community to establish a stable recycling network for waste plastics to alleviate pressure on landfills. However, the PRRC Project was closed at the end of 2016, as the government stopped subsidising it.

The lack of waste recycling facilities means the city is required to ship a lot of its plastic waste to mainland.

However, in July this year, China informed the Word Trade Organisation that it will stop certain solid waste imports, including plastic. This will affect Hong Kong with its mountains of plastic waste. Therefore, if we aim to recycle more and reduce the quantity of plastic waste, we will have to boost local plastic recycling.

The government could encourage new plastic recycling firms by helping them to meet the criteria, such as for effluent discharge, or release more licences for recyclers. It should also educate the public about what types of plastic bottles can go into recycling bins, so that plastic firms or recyclers have an easier job managing waste plastic. Increasing plastic recycling firms might be one of the best ways to reduce plastic waste.

Bipana Gurung, Tuen Mun

# **Plastic Resources Recycling Centre**

wastereduction.gov.hk/en/community/plastic\_recyc\_ctr.htm



#### **Plastic Resources Recycling Centre**

# Plastic Resources Recycling Centre (PRRC) Project Concluded Successfully at the end of 2016.

The PRRC, located at the EcoPark in Tuen Mun, was commenced in 2010 and had been operated and managed by a non-governmental organization (NGO), Yan Oi Tong (YOT), under the funding support of Environment and Conservation Fund (ECF). The PRRC aimed to conduct public education and promote recycling through on-site demonstration of turning waste plastics into reusable materials. It also assisted the local community to establish a stable recycling network for waste plastics to alleviate pressure on landfills.

The PRRC project was concluded successfully at the end of 2016. The promotional role of the PRRC will be shared by the Community Green Stations and projects funded by the ECF and the Government, including the Community Recycling Centres. And the collection and handling of waste plastics will be taken up by the existing community network through market mechanisms.

Back to Top

# **Source Separation of Domestic Waste**

wastereduction.gov.hk/en/household/source intro.htm



#### Introduction

The Programme on Source Separation of Domestic Waste was launched territory-wide in 2005 to encourage more people to separate their waste for recycling. It began on a trial basis in 13 housing estates in Eastern District in 2004, and it proved to be successful. Some of the participating housing estates more than doubled the quantity of recyclables they recovered. They also earned additional income from selling recyclable materials which can be used to subsidise management expenses.

The rationale behind the Programme is straightforward. Landfills are running out of space so we need to reduce our wasteloads. By getting people to separate their waste for recycling, it will help to minimise the amount of waste requiring disposal.

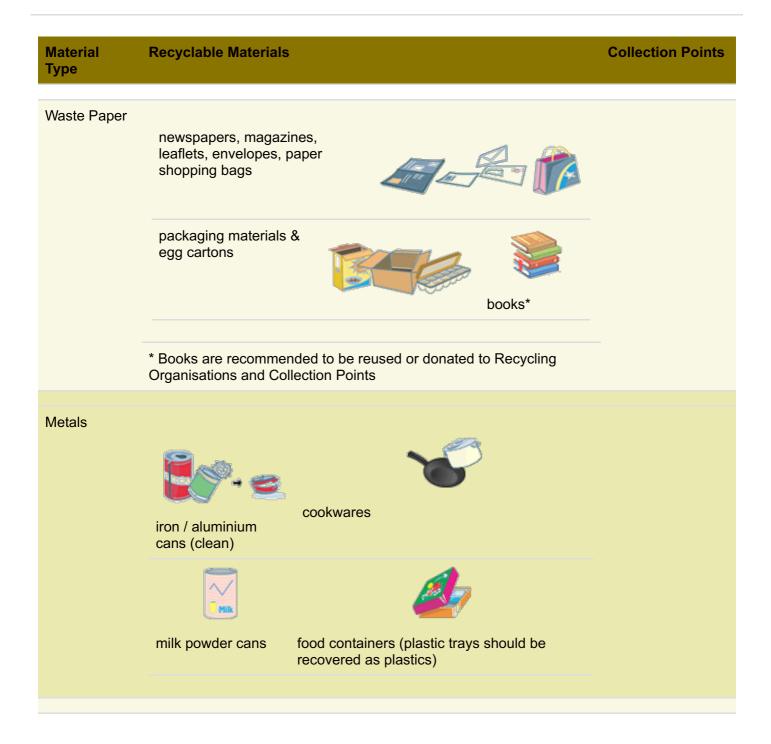
Together with other measures set out in the "Hong Kong Blueprint For Sustainable Use Of Resources 2013-2022" published in May 2013, the EPD is seeking to increase the recycling rate in Hong Kong to 55% by 2022. Waste separation in housing estates will be essential to ensuring the success of this goal. In recent years the Government has tested various forms of domestic waste separation and recovery to identify systems that are convenient to residents, cost-effective and best suit local needs. A flexible approach is necessary because different systems may be required for different types of buildings.

# What can be recycled and Collection Points



wastereduction.gov.hk/en/assistancewizard/recyc\_note.htm

# What can be recycled and Collection Points



#### **Plastics**





plastic bottles & caps (clean)

shopping bags, plastic wrappings (clean)





toys & stationery

plastic containers (e.g. buckets, clean food containers) & chairs



CD, DVD, cassette / video tapes & laser discs

Related Programme(s): Plastic Resources Recycling Centre

#### Rubber



Collector/Recycler

rubber tyre

# Electrical Appliances

# **Small Electrical Appliances**







e.g. cooker, toaster, oven, hair-dryer, vacuum cleaner, electric fan, Iron, mobile phone, telephone, camera, recorder, MP3 player, electronic dictionary, notebook, computer, printer, DVD/cassette tape player, hi-fi, etc

# Large Electrical Appliances







e.g. air conditioner, refrigerator, washing machine, television etc

Related Programme(s): Waste Electrical and Electronic Equipment (WEEE) Recycling Programme, Computer and Communication Products Recycling Programme

# Rechargeable Batteries

All rechargeable batteries, including general purpose and small electronic devices



Rechargeable Battery Collection Point

Related Programme(s): Rechargeable Battery Recycling Programme

# Fluorescent Lamp

compact fluorescent lamps, other fluorescent lamps (including straight tubes and round tubes), high intensity discharge (HID) lamps



Fluorescent Lamp Collection Point

Related Programme(s): Fluorescent Lamp Recycling Programme

Clothes



clothes, accessories, textile (clean)

#### Glass

Clean glass bottles\*, e.g beer/wine glass bottle, cooking oil/seasoning/sauce glass jar, etc





**Related Programme(s):** Pilot Programme on Source Separation of Glass Bottles\*

# **Material Recyclable Materials Collection Points Type Furniture** Recycling Organisations and **Collection Points Furniture** furniture (household) furniture (institution/commercial) (household) **Furniture** (institution / commercial) Food Food e.g. dried food, canned food Recycling Organisations and **Collection Points** Others Collector/Recycler Recycling Organisations and **Collection Points** food waste, restaurant waste (oil, grease trap)

# **Non-Recyclable Materials**

beverage or milk cartons with plastic or aluminium interior coatings

toner cartridge

wood



**PVC Banner** 

aerosol cans, chemical containers



mops, correction fluid containers or medicine containers





light-bulbs

Type of Collection Point	Material Type
Collector/Recycler	Computer Products, Electrical Appliances, Ferrous Metals, Food Waste, Restaurant Waste (Oil, Grease Trap), Glass, Non-Ferrous Metals, Paper, Plastics, PVC Banner, Rubber Tyre, Textile, Toner Cartridge, Wood, Others
Recycling Organisations and Collection Points	Accessories, Books, Clothes, Computer Products, Educational Toys, Electrical Appliances, Fluorescent Lamp, Food, Furniture (household), Furniture (institution/commercial), Glass Bottles, Rechargeable Batteries, Stationery, Waste Plastics, Others

Need Help? EPD Customer Service Centre Hotline: 2838 3111

email address: enquiry@epd.gov.hk

# **Looking for Business Opportunity**

( <u>)</u> v	vastereduction.gov.hk /en/workplace/index_lookforbusiness.htm
•	Market Information
	i ) Waste Recycling Statistics
	ii ) Waste Disposal Statistics
•	Recycling Fund
	The Recycling Fund was launched on 6 October 2015 and is open for applications. The Recycling Fund promotes the recovery and recycling of waste into useful resources and products by facilitating the upgrading of operational capabilities and efficiency in the recycling industry to support its sustainable development.
	Further information about the Recycling Fund is available at its website: www.recyclingfund.hk
•	Other Funding Support
	Several funding schemes provide financial assistance to the recycling industry to encourage research and development into waste minimisation and recycling technologies applicable to Hong Kong. Successful applicants are expected to deliver technological products and solutions that are of widespread and practical use and that can be demonstrated and transferred to other members of the relevant industry, with the benefit of enhancing competitiveness.
•	Major Trade Associations & Recyclers in the Market
	i ) Major Associations for Recycling Industries
	ii ) HK Recyclers Directory
-	
	Taxation Requirement and Deduction Notes 3

Hong Kong is a free port that thrives on free trade. No tariff nor customs duty is imposed upon the import and export of recyclables. In general, the local recycling business is chargeable to profits tax based on the profits it makes. In order to encourage the business community to acquire and use environment-friendly facilities, the government has revised the Inland Revenue Ordinance in 2008 to introduce accelerated tax deduction associated with profits tax. Recycling business operators may apply for the aforementioned deductions under profits tax according to the capital expenditure incurred on the eligible machinery and installations.

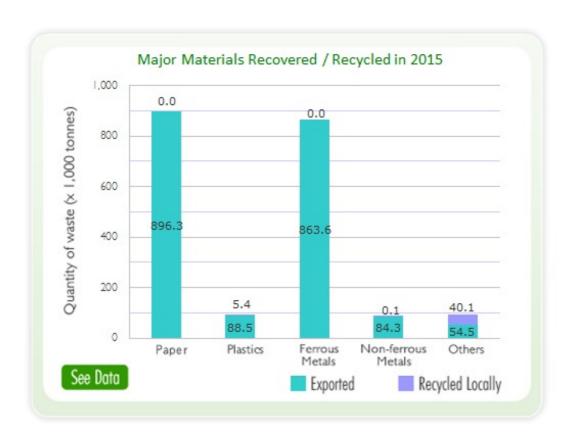
Back to Top

# **Waste Recycling Statistics**

wastereduction.gov.hk/en/quickaccess/stat\_recycle.htm

Waste reduction and recycling are very important elements of the local waste management framework. They help both to conserve natural resources and to reduce demand for valuable landfill space.

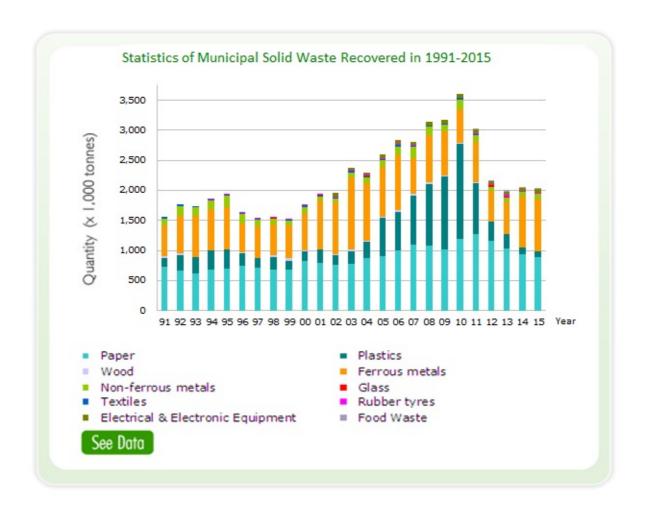
Through the existing waste recovery system, about 2.03 million tonnes of municipal solid waste were recovered in Hong Kong in 2015. Of that total, 2% was recycled locally and 98% was exported to the Mainland and other countries for recycling, with an export earning of HK\$4.6 billion for Hong Kong.



The Environmental Protection Department encourages waste reduction and recycling activities. Since 1991 it has provided a helpline service to help the public organize waste reduction and recycling programmes. It also provides information on recyclers and technical advice on waste recovery and recycling.



Remark: Percentages may not add up to 100 due to rounding off.



Back to Top

Statistics of Municipal Solid Waste Recovered in 1991-2015																									
Year	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	80	09	10	11	12	13	14	15
Paper	735	677	620	692	700	750	710	684	679	826	800	763	782	883	908	1003	1102	1091	1027	1195	1278.4	1162.3	1034.6	947.9	896.3
Plastics	148	252	270	306	314	212	165	214	154	165	214	166	207	265	644	646	820	1023	1211	1577	843.2	316.6	242.7	98.7	93.9
Wood	21	22	6	9	5.4	3.1	1.7	21	48	6	10	18	25	22	14	19	21	18	17	17	17.7	9	6.1	6.3	1.2
Ferrous metals	519	624	691	690	709	494	526	509	540	637	803	859	1202	956	829	923	594	793	733	566	667.3	499.8	523.1	845.1	863.6
Non-ferrous metals	106	168	132	135	180	153	117	109	79	93	77	53	80	99	108	140	187	140	101	155	115.1	78.2	78.6	75.5	84.4
Glass	1	2	1	4	3.5	2.2	1.9	3.9	1.3	0.62	4	1.5	2	2	2	3	1	1	3	5	4.8	18.3	10.2	8.4	9.3
Textiles	31	30	23	20	16	15	12	13	20	24	20	18	26	18	15	26	15	10	16	20	10.8	3.8	7.2	4.2	4.8
Rubber tyres				7	5	6	7.5	8.7	14.8	7	10	12.5	20	21	21	22	13	7	9	10	14.8	12	21.7	4.6	6.8
Electrical & Electronic Equipment												68	33	37	53	58	59	59	64	61	66.7	56	55.8	55.5	58.5
Food Waste																					0.6	6.7	28.6	6.9	14.0
																					•	·			1
Quantity (x 1 000 tonnes)																									1

Major Materials Recovered/Recyc	Paper	Plastics	Ferrous Metals	ferrous Metals	Others	
Exported	896.3	88.5	863.6	84.3	54.5	
Recycled Locally	0.0	5.4	0.0	0.1	40.1	
Quantity of waste (x 1 000 tonnes)						

Values of Exported Recyclable	Materials in	2015	
	2015		
Paper	27%		
Plastics	5%		
Ferrous Metals	38%		
Non-ferrous Metals	30%		
Others	0.1%		
Total Value = HK\$ 4.6 billion			
Remark: % may not add up to 100	due to rour	nding off.	

https://www.wastereduction.gov.hk/en/quickaccess/stat\_recycle.htm

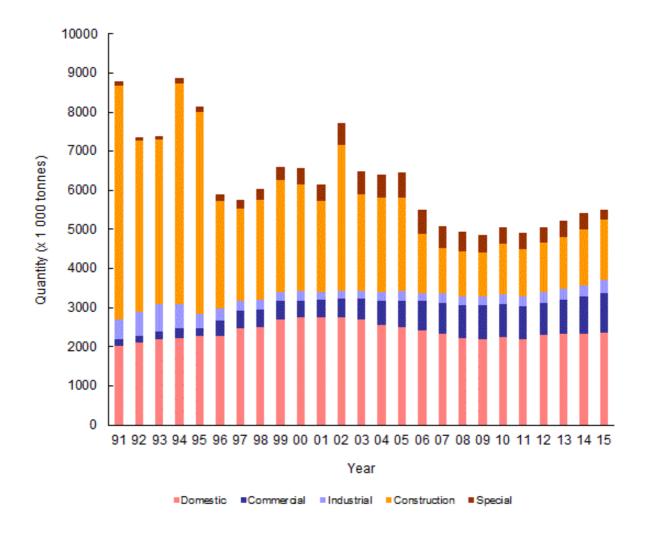
### **Data & Statistics**

epd.gov.hk/epd/english/environmentinhk/waste/data/stat\_treat.html

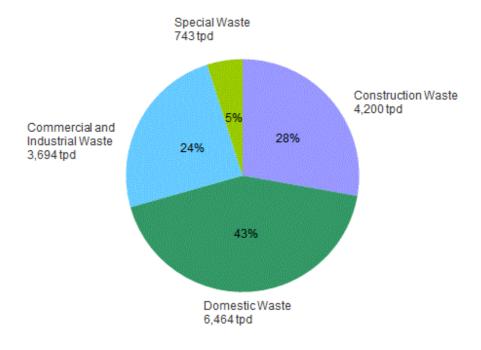
#### **Hong Kong Waste Treatment and Disposal Statistics**

The Environmental Protection Department is closely monitoring the quantities of different types of solid waste disposed of at various waste facilities. The results of the monitoring work carried out between 1991 and 2015 are summarised graphically in the figures below. (For more details please visit https://www.wastereduction.gov.hk/en/assistancewizard/waste\_red\_sat.htm).

#### Quantities of Solid Waste Disposed of at Landfills in 1991-2015



#### Types of Solid Waste Disposed of at Landfills in 2015

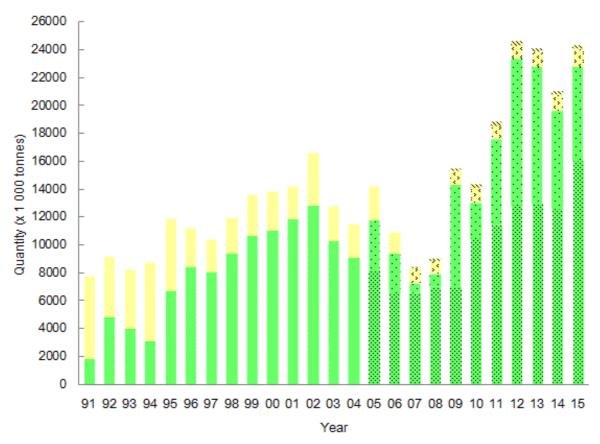


Total: 15,102 tonnes per day

Note : Figures may not add up to total due to rounding off.

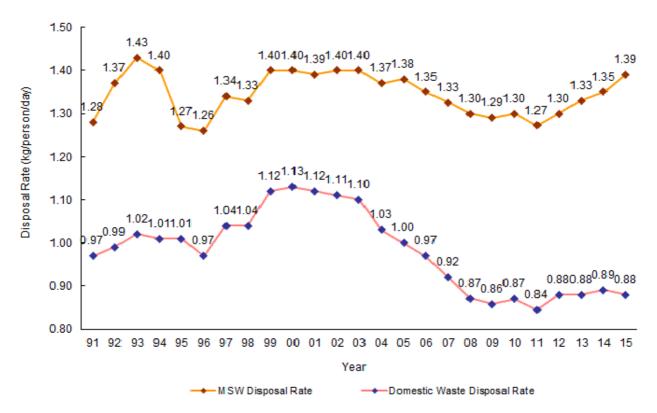
**See Data** 

**Quantities of Construction Waste in 1991-2015** 



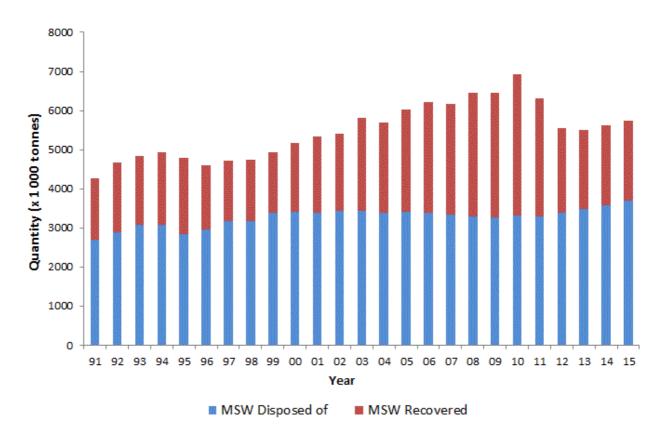
- Waste concrete disposed of at landfills
- M Construction and demolition waste disposed of at landfills
- Public fill transferred to projects for direct reuse
- Public fill received at public fill reception facilities

#### Per Capita Disposal Rates of Municipal Solid Waste and Domestic Waste in 1991-2015

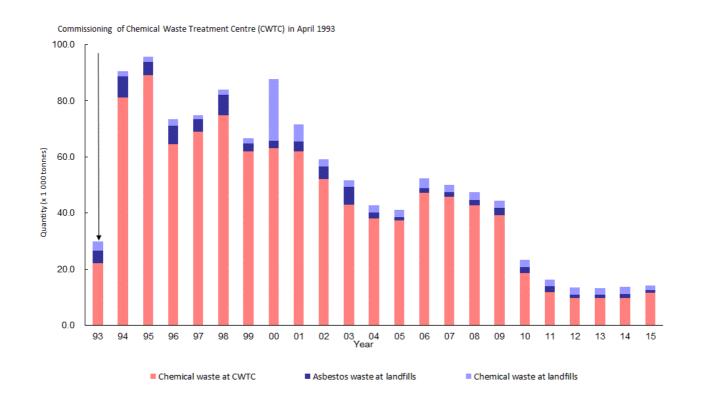


Note: The per capita disposal rates are calculated based on the population (mid-year) updated by the Census and Statistics Department in February 2016.

#### Quantity of Municipal Solid Waste Disposed of and Recovered in 1991-2015

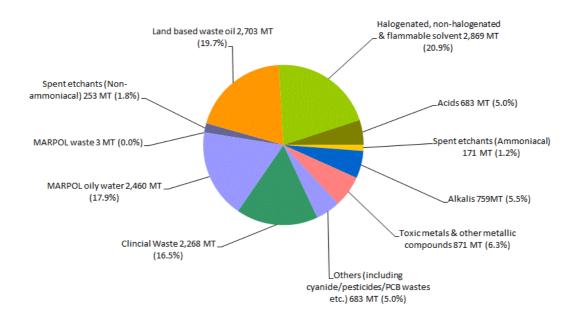


#### Disposal of Chemical Waste in Hong Kong in 1993-2015

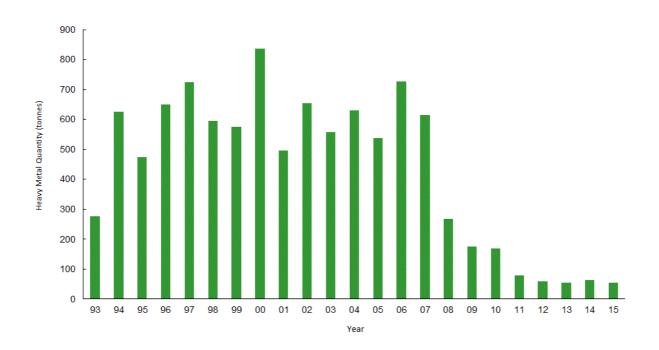


**See Data** 

#### Chemical Waste and Clincial Waste Collected at CWTC in 2015



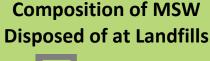
#### **Toxic Metals Removed at Chemical Waste Treatment Centre**

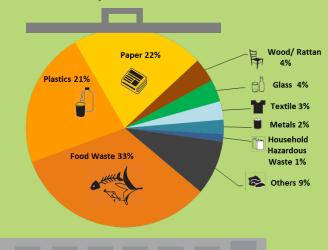


# HONG KONG 2015 WASTE STATISTICS

At a Glance



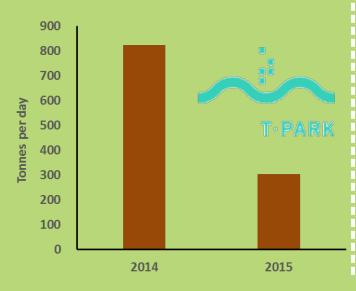




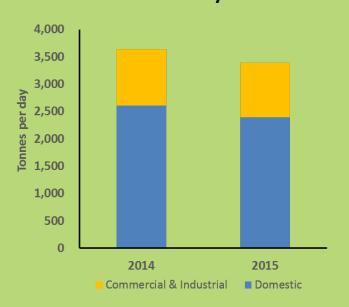
Total disposal quantity: 10,159 tonnes per day

Note: Others include bulky items and other putrescible/miscellaneous materials.

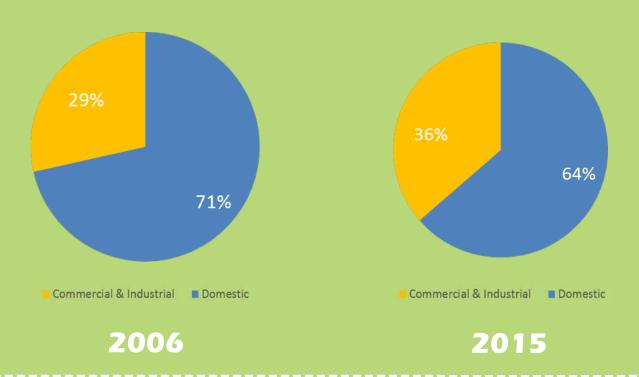
# Dewatered Sewage Sludge Disposed of at Landfills Reduced by 63%



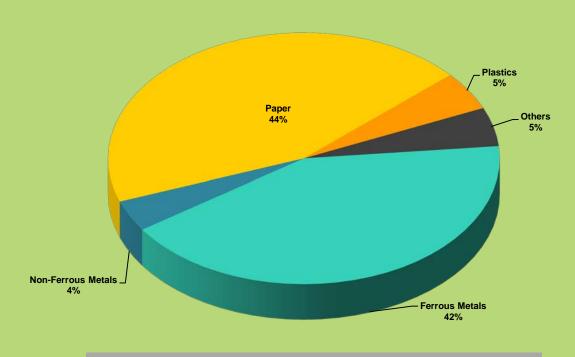
# Food Waste Disposed of at Landfills Reduced by 7%



### **Source of MSW Disposed of at Landfills**



## **Recovered Recyclable Materials in 2015**



Total quantity: 2.03 million tonnes (0.76 Kg/day per capita)

Note: Others include glass, wood, rubber tyres, textiles, food waste, and electrical and electronic equipment.

# Waste statistics published for 2015

(info.gov.hk/gia/general/201612/22/P2016122200556.htm)

Waste statistics published for 2015

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The Environmental Protection Department (EPD) today (December 22) issued the report "Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2015". The report presents the 2015 statistics on disposal and recovery/recycling of solid waste generated in Hong Kong. Solid waste includes municipal solid waste (MSW) (comprising domestic, commercial and industrial waste), overall construction waste and special waste.

In 2015, the average daily quantity of solid waste disposed of at landfills was 15 102 tonnes, representing an increase of 1.6 per cent as compared with the figure for 2014. This rate of increase was slower than that reported in 2014, which was 3.8 per cent. Regarding MSW, the average daily quantity of disposal at landfills was 10 159 tonnes in 2015, representing an increase of 3.9 per cent as compared with the figure for 2014. As far as the per capita MSW disposal rate per day is concerned, the 2015 figure was 1.39 kilograms, as compared to 1.35kg in 2014. The increase in the MSW disposal rate was mainly due to the relative increase in the amount of commercial and industrial waste being disposed of, which in turn was partly attributable to the relatively buoyant local economy in 2015.

Looking at the figures by waste type, food waste disposal decreased by 7.1 per cent on a year-on-year basis. The per capita disposal rate of food waste also dropped by 7.9 per cent during the same period. The drop may well be a result of efforts made by many sectors of the community in response to the various initiatives taken by the Government, in particular those under the Food Wise Hong Kong Campaign on nurturing a culture of reducing food waste at source and to donate surplus food to the needy.

Regarding special waste, the quantity being disposed of at landfills in 2015 decreased markedly by 34.5 per cent, as compared to the figure for 2014. The decrease is attributable to the commissioning of the sludge treatment facility (T·PARK) in Tuen Mun in 2015. This facility treats dewatered sewage sludge from sewage treatment plants by incineration, leaving only the residue and ash to be landfilled, hence significantly reducing the volume of such waste to be disposed of at landfills by 90 per cent.

Regarding construction waste, the quantity being disposed of at landfills stood at 64 per cent of the level before the implementation of the Construction Waste Disposal Charging Scheme in 2006. The recovery rate of inert construction materials delivered to public fill reception facilities and other outlets was 94 per cent in 2015. Looking ahead, construction waste disposal charges will be increased with effect from April 2017, and will continue to provide further incentives for the trade to reduce and reuse construction waste.

Hong Kong relies heavily on services industries, and hence it has very limited capacity to utilise raw or recycled materials in local production. The condition of the international market for recyclables has for many years heavily dictated the value of and outlets for local recyclables. The challenging condition of the international market for recyclables in the past few years has had a dampening effect on demand for, and thus prices of, local recyclables. Compared to 2014, the total quantity of recovered MSW was 20 000 tonnes lower. The MSW recovery rate was 35 per cent in 2015, while that in 2014 was 37 per cent. By major types of recyclables, the recovery of waste paper and waste plastics dropped by 52 000 and 5 000 tonnes respectively, owing to the weak demand for these recyclables. Nevertheless, the recovery of waste metals increased by 27 000 tonnes as they remained relatively valuable in international markets.

An EPD spokesman said that the Government attaches great importance to waste management work, and will continue its efforts in implementing step by step the waste reduction and recycling policies and actions under "Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022" and "A Food Waste & Yard Waste Plan for

Hong Kong 2014-2022". The EPD will continue to vigorously implement policies on waste avoidance and reduction, including MSW charging and producer responsibility schemes for e-waste and glass beverage containers, developing and commissioning recovery infrastructure including the waste electrical and electronic equipment treatment plant and the organic waste treatment facilities, developing the Community Green Stations network to strengthen the community recyclable collection network, and stepping up efforts to promote and implement the Food Wise Hong Kong Campaign to sustain reduction in food waste. The EPD will also continue to promote better recycling practice through, among other things, education and publicity programmes on clean recycling.

The report and "Hong Kong 2015 Municipal Solid Waste - At a Glance", which are available in electronic format, can be obtained from the EPD website at <a href="https://www.wastereduction.gov.hk/en/assistancewizard/waste\_red\_sat.htm">www.wastereduction.gov.hk/en/assistancewizard/waste\_red\_sat.htm</a>.

Ends/Thursday, December 22, 2016 Issued at HKT 16:00

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