



# Electronic Environmental Policy Monthly

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## Feature Article

### Water Quality Improvement Projects

In line with the *National Water Environment Improvement Plan* (2017 to 2021) of the Ministry of Economic Affairs (MOEA), the EPA has incorporated waterfront environments into its overall planning to improve the quality of water bodies. Out of the budget for all 67 water environment highlight spots maintained by different agencies, the EPA alone has been allocated over NT\$6.4 billion. In addition, NT\$3.7 billion has been appropriated for the *Sustainable Water Quality Promotion Plan* (2020 to 2023) to improve the water quality of seven designated rivers from the “seriously polluted” category to the “moderately polluted” category.

Due to people’s increasing concerns and demands on the environment, Taiwan’s current environmental policies are based on maintaining public health and building high-quality living environments with “clean air”, “circular economy”, “water quality improvement”, “sustainable generations”, “environmental friendliness”, and “life quality improvement” as the main focuses. The EPA works with the local governments to implement these policies, among which improving water quality is one of the priorities.

#### I. Total amount of water pollution generated in Taiwan

The total amount of water pollution generated in Taiwan is approximately 2,075 metric tons/day (based on the biochemical oxygen demands (BOD)), including 1,044 metric tons/day (50.3%) in municipal wastewater, 470 metric tons/day (22.2%) in industrial wastewater, and 571 metric tons/day (27.2%) in agricultural wastewater. The wastewater is treated by sewage systems or treatment facilities until it

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meets the *Effluent Standards* (放流水標準), and is then discharged to water bodies. The total pollution reduction is 1,442 metric tons/day, and the remaining pollution discharged is 634 metric tons/day, meaning 69.5% of the total generated pollution is removed. In the discharged wastewater, municipal wastewater takes up the highest percentage.

## II. Current implementation of pollution reduction measures

### 1. Amendments of water pollution control regulations

In 2019, the EPA amended items in the *Regulations for Determination of Fines Under the Water Pollution Control Act* (違反水污染防治法罰鍰額度裁罰準則), tables and items in the *Water Pollution Control Measures and Test Reporting Management Regulations* (水污染防治措施及檢測申報管理辦法), and items in the *Effluent Standards*. The EPA also announced revisions to the *Water Pollution Control Act Enterprise Classification and Definitions* (水污染防治法事業分類及定義).

### 2. Collection and usage of water pollution control fees

The collection of water pollution control fees began on 1 May 2015, and the targeted entities included enterprises (including livestock industry) and operators of wastewater systems in industrial parks, as well as operators of dedicated wastewater systems in other designated regions or premises. By 29 February 2020, the total amount collected was NT\$1,656,990,000, of which 40% (NT\$66,279,000) has been allocated to the EPA and 60% (NT\$994,190,000) to local governments.

### Improving water body quality

The average national river pollution index (RPI) dropped from 3.9 in 2001 to 2.5 in 2019, showing an improvement trend in the river water quality. In 2019, there were nine monitoring stations with average RPI showing severe pollution levels, fewer than that in 2018 and 2017.

### Reducing household wastewater pollution

The EPA has been coordinating with the Construction and Planning Agency, Ministry of the Interior (MOI)



The Water Pollution Control Act was promulgated in 1974, and the government focused its efforts on inspecting and supervising factories to construct wastewater treatment facilities.



 Water Quality Protection web

and other competent authorities in charge of sewers to expedite public sewage system construction or projects that connect households with sewage systems. Priorities are given to rivers or river sections that are severely polluted with excessive amounts of household wastewater.

For the watersheds of severely polluted rivers that have yet to connect to public sewage or have public sewage constructed, subsidies have been provided for projects like wastewater interception or onsite purification and treatment. As of the end of 2019, improvement projects had been completed at 151 sites with a daily total capacity of 1,230,000 metric tons of household wastewater intercepted and treated.

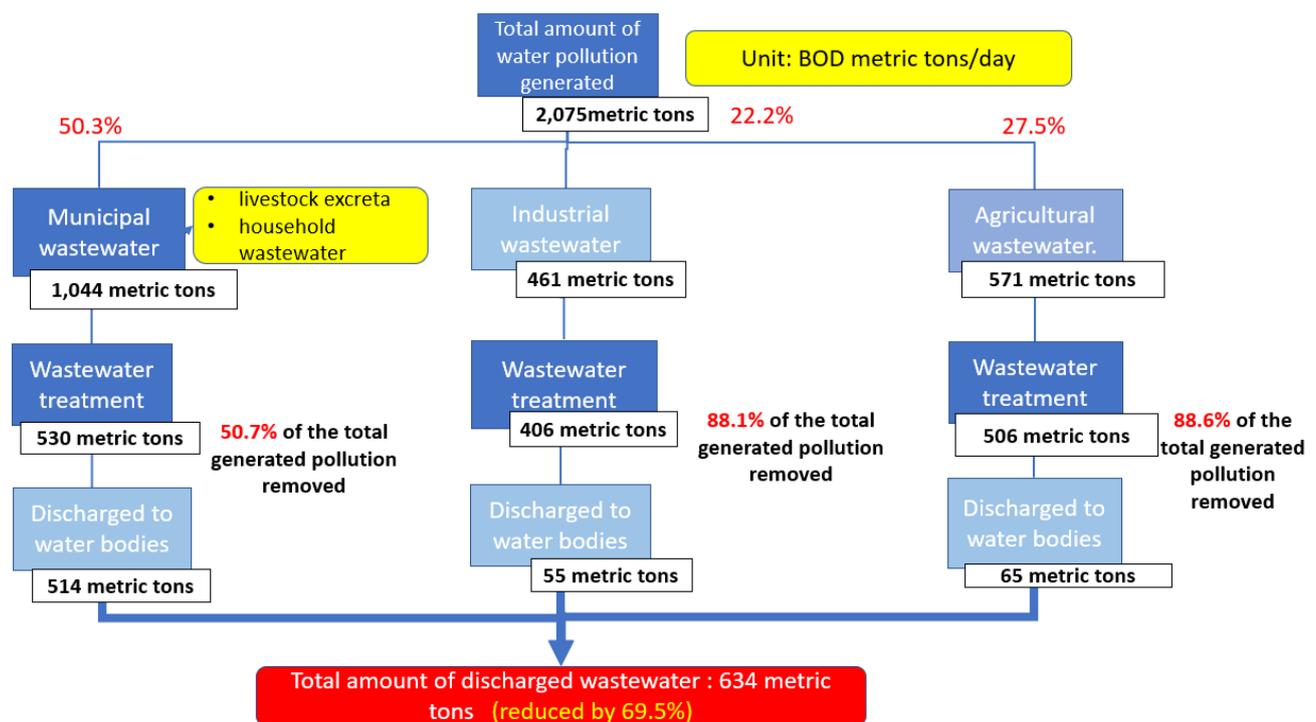
**Reducing enterprise wastewater pollution**

Local governments are urged to actively investigate major violations such as rerouting discharge or unpermitted discharge, confiscate illegal gains, and punish violators.

As for regions densely populated with enterprises or with major pollution hotspots, the joint force of the EPA’s Environmental Police Unit (EPU), the environmental police of the MOI’s National Police Agency, and regional competent authorities, has increased efforts to investigate and stop environmental pollution.

In addition, the EPA has given top priority to remediating some surface water bodies by selecting key water quality monitoring stations and integrating central and regional resources. Selections are based on river pollution levels and whether there’s excessive heavy metals (at rivers and water intake points for different uses).

And for severely polluted rivers and water bodies under special protection, the EPA continues to supervise and assist local governments in the implementation of total mass based control, or works to tighten the *Effluent Standards*.



▲ Total amount of water pollution generated in Taiwan

### Reducing livestock wastewater pollution

From 27 December 2017 to 8 March 2019, the EPA revised and announced the *Water Pollution Control Measures and Test Reporting Management Regulations* (水污染防治措施及檢測申報管理辦法) to intensify implementation efforts and reach the set goals faster. The Regulations specify the ratio of livestock wastewater reutilization to encourage small-scale livestock enterprises to adopt reutilization measures, and simplify application and review procedures for enterprises with fewer than 200 pigs. Livestock wastewater reutilization refers to the use of digestate sediment and fluid as farmland fertilizers, animal excreta recycling under the *Regulations Governing the Recycled Use of Agricultural Wastes* (農業事業廢棄物再利用管理辦法), and use for plant irrigation that is compliant with the *Effluent Standards*. By the end of April 2019, a total of 1,278 livestock farms were practicing excreta reutilization.

### Collecting, treating, and reutilizing animal excreta from other livestock farms

On 23 February 2018, the EPA announced plans to subsidize local governments to install reutilization facilities to treat animal excreta from other livestock farms. The goal is to promote centralization of excreta treatment and reutilization. A total of nine applications had been approved by the end of January 2020, processing excreta from 79,117 pigs and 697 cows in 30 farms.

### Easing livestock industry's burden in transporting digestate fluid and increasing irrigation flexibility

On 10 May 2018, the EPA announced plans to subsidize local governments to purchase livestock excreta transporting vehicles, irrigation vehicles and machinery, and storage tanks in farmlands. As of the end of January 2020, local governments had been subsidized to purchase 35 vehicles for transporting and irrigating digestate sediment and fluid and 64 farmland storage barrels.

### III. Future implementation

#### 1. National Water Environment Improvement Plan

To be in line with MOEA's *National Water Environment Improvement Plan*, the EPA has put waterfront environments in its overall planning consideration. The MOEA has been integrating different agencies' resources to work on enhancing water environments, intercepting wastewater, improving sewage systems, and promoting water purification and wastewater treatment facilities. The goal in the first stage (2017 – 2021) is to create 67 water environment highlight spots covering 305 hectares of waterfront leisure space. The EPA has given top priority to rivers or river sections with medium or worse pollution levels, as well as areas with no sewage systems or whose households cannot be connected to existing sewage systems within a short period of time, and is subsidizing local governments to install water quality improvement equipment, such as gravel contact oxidation or aeration facilities so as to enhance wastewater interception and treatment.

The first stage of the Forward-Looking Infrastructure Plan spanned from September 2017 to August 2021. The *National Water Environment Improvement Plan's* budget for the EPA alone amounts to NT\$6.465 billion, 85.1% (NT\$5.503 billion) of which are earmarked for expenditure on capital items. The second stage (2019 – 2020) special budget also allocated a total of NT\$1.7 billion to the EPA in 2020.

#### 2. Sustainable Water Quality Promotion Plan

The plan specifically targets seven rivers, including Nankan River, New Huwei River, Erren River, Laojie River, Beigang River, Donggang River, and Jishui River. The goal is to lower the percentage of ammonia nitrogen levels and improve the rivers' status from severely polluted ( $>3\text{mg/L}$ ) to moderately polluted ( $\leq 3\text{mg/L}$ ). The percentage of ammonia nitrogen levels lower than 3 mg/L as determined by station samples is to be raised from 53% to 70%. The plan spans from 2020 to 2023 and was allocated a total budget of NT\$3,727,127,000.

## Inspection

# Illegal Waste Disposal Uncovered in Central Taiwan

The EPA, Taichung District Prosecutors Office, the Seventh Special Police Corps, and Taichung Environmental Protection Bureau (EPB) jointly busted a waste aluminum reuse enterprise for its illegal waste disposal. In an attempt to cut costs, the violator commissioned enterprises that had not obtained waste clearance and disposal permits to dispose of the waste aluminum slag generated from its operations, as well as dust and ash collected from its air pollution control equipment. At the end of the investigation, relevant enterprises and persons were suspected of violating several administrative penalty stipulations under Articles 46, 47, and 48 of the *Waste Disposal Act* ( 廢棄物清理法 ) regarding illegal disposal and falsifying information with charges brought against them.

Under the pretense of in-factory reuse, the said waste aluminum reuse enterprise did not properly dispose of the waste aluminum slag, dust and ash generated from its operations. Instead, it commissioned unscrupulous parties to transport the waste to enterprises in Shalu and Dadu Districts, Taichung that had not obtained waste disposal permits. Between July 2018 and November 2019, a total of 700 metric tons of such waste had been disposed of by illegal enterprises. As a result, the waste aluminum reuse enterprise saved NT\$12.56 million on waste clearance and disposal fees.



- ▶ *The waste aluminum reuse enterprise produces waste aluminum slag from its operations.*



- ▶ *The EPA, Prosecutors Office, the Police Corps, and Taichung EPB jointly busted a waste aluminum reuse enterprise on 27 November 2019.*

When waste aluminum slag or dust and ashes from pollution control equipment come into contact with water, chemical changes can easily occur, leading to generation of irritating, harmful ammonia that can affect the bronchi and the respiratory system and even cause damage to the lungs after long-term inhalation. These wastes can also seriously pollute the environment if dumped or buried randomly.

Enterprises are urged to avoid causing pollution by commissioning enterprises compliant with the *Waste Disposal Act* to dispose of their industrial wastes. Moreover, the EPA will continue to crack down on violations by collaborating with prosecutors and police in order to deter environmental crimes and maintain environmental quality.

## Waste

# Waste Solar Panels Recycling and Disposal Mechanism Launched with Mandatory Registrations

Along with Taiwan's ongoing green energy development efforts, the EPA has established a complete recycling, clearance, and disposal system in anticipation of waste solar panel disposal in the future. A batch of 50 waste panels retired from a solar photovoltaic installation in Penghu and was properly disposed of recently

This recycling, clearance and disposal system, jointly developed by the EPA and MOEA's Bureau of Energy (BOE), is currently run by Taiwan Photovoltaic Industry Association. Installers of photovoltaic generation equipment pay recycling and clearance fees in advance, and then professional disposal enterprises are commissioned for the recycling work.

Large-scale photovoltaic power generating enterprises are required to register the serial number of each solar panel with the BOE and also pay the recycling and clearance fees. When panels are to be replaced, enterprises must register online, gather the old panels together in line with regulations, and have clearance enterprises disposal of them. Households, campers or those who use a small number of solar panels can also call a dedicated number for disposal-related assistance.

Not only does this system prevent waste panels from being dumped randomly causing pollution, it can also actively promote reutilization, creating a circular green energy economy. Random dumping of waste panels or clearance and disposal by illegal means can lead to penalties of up to NT\$ 3 million in fines according to the *Waste Disposal Act*.

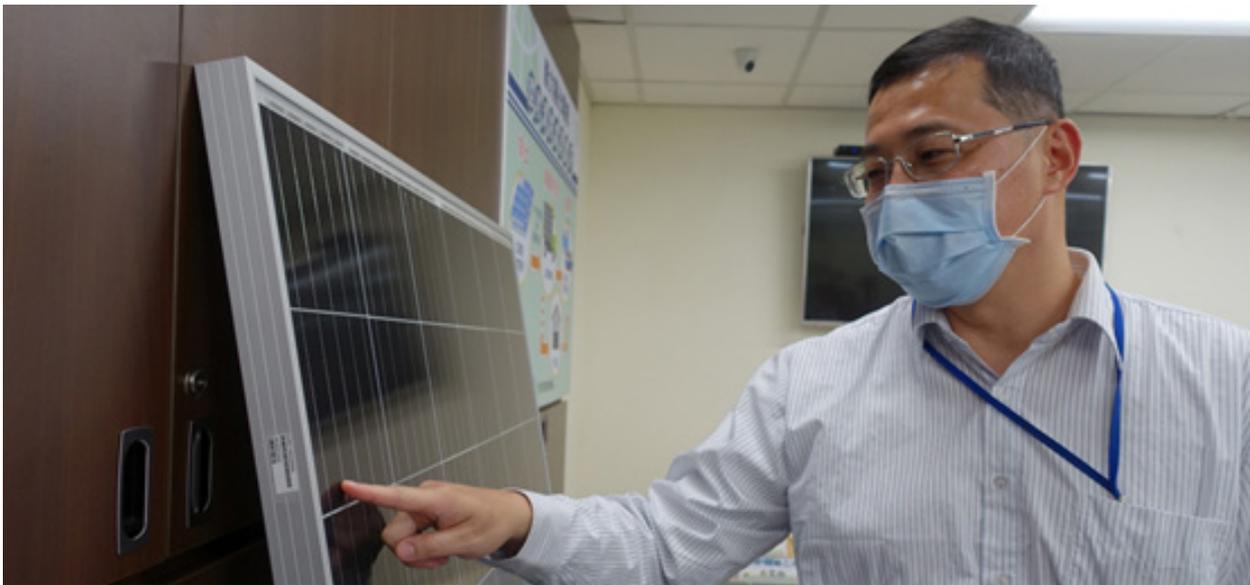
According to Taiwan's green energy policy, photovoltaic generation capacity is set to reach 20 gigawatts in five years. Presuming the life cycle of solar panels is 20 years, there would be over 100,000

metric tons of waste panels per year starting from 2035. Additionally, annual generation of waste panels due to natural disasters is estimated to be about 0.5% of annual panel installation. Random dumping can lead to pollution caused by heavy metals leaked from circuit boards, which is why the EPA has preemptively planned and developed this recycling system.

Solar panels are mainly composed of glass (74.16%), aluminum (10.30%), silicon (3.35%), copper (0.57%), precious metals, and plastics. Many of them can be recycled and reused after proper sorting and dismantling. At present, enterprises use heat treatment (melting or "hot knife method") to separate glass and battery sheets and reuse them.

This recycling system set up by the EPA requires registration from installation to disposal to ensure that every solar panel is properly recycled. Enterprises which registered their solar panels before 18 December 2019 are encouraged to go to the Waste Solar Panels Recycling Service Management Information System to register when dispose of them. For those that registered after that date, the BOE will provide the electronic data and import them directly into the Information System.

Online application is mandatory to dispose of used solar panels. The approval is mainly based on checking the module serial number, supplemented by the case-by-case total quantity control of individual sites. The goal is to ensure that each decommissioned



▲ The serial number of each waste solar panel helps confirm the production source.

panel can be traced back to the registration of individual sites.

Four steps are required to recycle waste solar panels: asking, filling out, gathering, and collecting. Photovoltaic equipment owners or people who have waste panels can dispose of them by themselves or by commissioning certified publicly or privately run waste clearance enterprises to do so. Also, they can go to the Waste Solar Panels Recycling Service Management Information System (<https://pvis.epa.gov.tw>) to register relevant panel decommissioning information. When the number of registered waste panels reaches 50, a case will be set up to deploy clearance enterprises to handle them. Aside from power generating enterprises, households that install small-scale solar panel systems can use the online registration system to properly dispose of their waste panels. As for gasoline and diesel used in land transportation, the carcinogens benzene and PAHs, which can affect the environment and human health, are subject to tighter control. The maximum benzene content in gasoline has been tightened from 1% to 0.9%, and the maximum PAH content in diesel from 11% to 8%. The revision was to safeguard air quality and protect human health by reducing the risk of exposure to carcinogens.

The EPA stated that, with the *Standards for Fuel Compositions of Mobile Sources* taking effect in on 1 July 2020, CPC Corporation, Formosa Petrochemical Corporation, and other fuel providers will begin to provide products compliant with the latest standards. Users of all transportation vehicles are urged to use such products instead of recycled or mixed fuel products of unknown origins to help improve the air quality. Moreover, in an attempt to improve recycling technology and develop high-value applications, the EPA has been working with industry and academia on developing continuous waste tire devulcanization recycling technologies. These technologies can be used to produce high-quality recycled rubber suitable for making various rubber products. The next step is collaborating with factories for mass production to further diversify processing technologies, increase reutilization values, and create more green business opportunities.

## Waste

# Heavier Penalties Planned for Listed Enterprises That Violate the *Waste Disposal Act*

The EPA preannounced revisions to Article 2 of the *Regulations for Determination of Fines of Violations of the Waste Disposal Act* (違反廢棄物清理法罰鍰額度裁罰準則) to induce waste producers to take responsibilities. Violators' financial capacities are to be considered in fine calculation.

The EPA noted that the *Regulations for Determination of Fines of Violations of the Waste Disposal Act* (hereinafter as the "Regulations"), announced on 28 May 2019, specify how fines are calculated based on the type of violation of the *Waste Disposal Act*. The fine calculation methods are clearly stated in Tables 1 to 4 as references for authorities that issue penalties.

The EPA expressed that, besides issuing fines in accordance with the Regulations, the penalized parties' financial resources can also be considered in the fine calculation based on Article 2, paragraph 1

of the Regulations. With greater financial capacities and larger operation scales, exchange or OTC-listed enterprises often have access to more social resources and also produce more industrial wastes. For environmental justice and to discourage illegal practices, these enterprises shall shoulder more environmental responsibility.

For this reason, the EPA preannounced the addition of paragraph 2 to the Regulations' Article 2 to incorporate whether violators are exchange or OTC-listed enterprises as a determining factor in calculating a fine.

## Recycling

# Subsidy Rates Amended to Encourage Scrap Vehicle Recyclers to Improve Processing Efficiency

The EPA amended the End-of-Life Vehicle Recycling, Disassembly, Shredding and Sorting Subsidy Rates to provide economic incentives for end-of-life vehicle (ELV) treatment enterprises to increase the resource recycling rates. The amendments also aim to reduce waste and boost the recycling efficiency of valuable materials (such as shredded steel and waste plastic). The subsidy rates go up as the amount of recycled ELV waste or the recycling rate increases.

To strengthen waste treatment capacity and improve recycling quality with enhanced treatment technology and equipment, the EPA adjusted the subsidy rates for shredding and sorting scrap automobiles. After ELVs are turned in for recycling, they are first dismantled to allow any valuable components to be recycled. Then the scrapped vehicle exteriors are sent to a processing plant to be shredded and sorted. To motivate processing plants to increase sorting efficiency, subsidies are calculated and handed out based on the resource recycling rate and the certified volumes of shredded steel.

Most processing plants have already achieved a resource recycling rate of 75%. To further increase

the amount of recycled materials from shredding and sorting processing plants, the revised End-of-Life Vehicle Recycling, Disassembly, Shredding and Sorting Subsidy Rates will be promulgated on 1 May 2020. The revisions added two subsidy categories to incentivize enterprises to increase their resource recycling rate by boosting sorting technology and equipment, or by optimizing processing procedure. In addition, a sunset clause was added to encourage processors to raise sorting efficiency and increase the output of recycled materials. All these are aiming to increase the economic value of the ELV recycling industry. Details on the amended subsidy rates are shown in the chart below.

 Scrap Motor Vehicle Management Subsidy Rates (Unit: NT\$)

Subsidy Regulations		Subsidy Rates (\$/vehicle)	Recipient	Issuing Method
Motorcycle	Scrapped and turned in by the public and announced by the police and environmental offices	185	Disassembling processors that recycle scrap motor vehicles and are qualified under Regulations Governing the Evaluation of Recycling Subsidy Fee Rates for Recyclables to be a recycling subsidy recipient.	Apply to the EPA for the subsidy payment based on the actual volume produced in the period and certified by the auditing and certifying organization.
	Recycled by the market itself			
Car	Scrapped and turned in by the public and announced by the police and environmental offices	770	Disassembling processors that recycle scrap motor vehicles and are qualified under Regulations Governing the Evaluation of Recycling Subsidy Fee Rates for Recyclables to be a recycling subsidy recipient.	Apply to the EPA for the subsidy payment based on the actual volume produced in the period and certified by the auditing and certifying organization.
	Recycled by the market itself			

## Air

### EPA Establishes Task Force to Control Dust Pollution in Ports

The fugitive particulate matter released while unloading commodities such as imported cement clinker in port zones can easily cause pollution if dust control measures are not properly implemented. Since air quality is typically poor in autumn and winter, the EPA requested the Taiwan International Ports Corporation (TIPC) to notify environmental agencies before clinker transport ships arrive at ports during the autumn and winter of 2019. In addition, the EPA and local environmental protection bureaus (EPBs) also conducted more frequent inspections. During this time, a total of 40 inspections were carried out, among which three cases of dust pollution resulting from loading and unloading operations were detected, and were penalized in accordance with relevant regulations. With the implementation of these measures, pollution in port zones has been significantly improved.

Since ports are often located far from the public eye, private port operators tend to disregard pollution control standards during loading and unloading operations, resulting in worsened air quality. The Public Construction Commission also expressed concerns over this issue and sought assistance from the EPA to reinforce port patrols for dust pollution. In response, the EPA joined forces with other central and local government agencies and established the Cement Dust Pollution Mitigation Task Force to perform joint inspections on loading and unloading operations in ports. Through the establishment of the task force, the EPA has demonstrated its determination in clamping down on improper ship-to-shore transfers. In addition, the implementation of the task force and joint inspections also helps raise

awareness and promotes improvements among port operators and management agencies.

To enhance the implementation efficiency of the task force, each of the TIPC branches works closely with local governments and comes up with several distinctive strategies to assist port operators with pollution mitigation. For example, the Port of Kaohsiung took the lead by holding demonstration workshops on dust suppression using misting systems. To control the fugitive dust that escapes in the process of loading and unloading operations, the Port of Kaohsiung also assisted the installation of more than 50 high efficiency misting systems in ports all over Taiwan. Additionally, the EPA also conducts port patrols to acquire the latest information on dust pollution control.

To prevent the release of dust from loading and unloading cargos, the Port of Taichung has employed closed-circuit television (CCTV) cameras to gain real-time understanding of port operations. In addition, they also work with the local environmental protection bureau to jointly promote pollution mitigation by holding the Pollution Mitigation for Dust Emissions from Loading and Unloading Operations in the Port of Taichung Workshop. To expand the pollution control capacity of port operators, the TIPC cooperates with the Maritime and Port Bureau to conduct joint inspections of ship-to-shore transfer operations in port zones at random times. They also formulated a set of standard procedures for loading and unloading

operations, which is complemented with periodic meetings for rolling evaluations. Port operators are required to improve their existing air pollution control facilities and gradually bring in enclosed equipment to control air pollution at its source.

The EPA reiterated that port inspections will take place randomly to keep track of progress on air pollution control facility upgrades. The EPA also stressed that while penalty issuance is not the main purpose of the inspections, dust emissions in air pollution control regions that violate the *Air Pollution Control Act* can be fined up to NT\$5,000,000.



▲ Fugitive particulate matter is released while unloading cement clinker in port zones

## Air

### Regulations Governing Air Pollution Monitoring for Stationary Sources Amended

To strengthen the management of the continuous emission monitoring system (CEMS) for stationary sources, the EPA amended the *Management Regulations Governing Stationary Source Air Pollutant Continuous Automated Monitoring Facilities* on 8 April 2020 (hereinafter referred to as the Regulations). The purpose of the amendments is to increase the quality and reliability of monitoring data, to reinforce audit capability and efficiency, and to strengthen pollution source control and the management of the monitoring system.

The main points of the amendments are as follows:

1. The Stationary Sources of Air Pollution Required to Install Automated Continuous Monitoring Facilities and Connect Online to the Competent Environmental Protection Authorities were revised on 13 January

2020. The performance standards for flare towers and online transmission formats were newly added for public and private premises to follow.

2. To reinforce the management of the data acquisition handling system (DAHS), the amendments

added that the DAHS shall be checked and tested by a third-party organization that has been approved by the central competent authority for any illegally hidden programs. The implementation standards will be formulated separately in the future.

3. To increase monitoring data accuracy and audit quality, the amendment added signal paired comparison testing procedures. Local environmental bureaus are allowed to install signal acquisition equipment on the back end of monitoring equipment either on their own or by requesting public and private premises to do so. By comparing signals received at both sides, the accuracy of monitoring data can be ensured.

4. To continue strengthening CEMS control and prevent illegal acts, public or private premises that submit a false report involving criminal liability, or which otherwise constitutes a major violation, are to have their monitoring facilities inspected by a third-party organization every two years.

5. To ensure that public and private premises are monitored at all times, the percentage of effective seasonal monitoring hours is to be increased in stages to eventually reach at least 95%. Public and private premises are allowed to use a certain number of hours each month for the calibration, maintenance and repair of monitoring equipment.

6. To encourage stationary sources to implement air pollution reduction measures, public and private premises whose reduced emissions meet the stipulated conditions are allowed to use other

alternative monitoring methods that have been proven to achieve the same level of processing effectiveness.

7. To enhance the accuracy of monitoring data, public and private premises are required to transmit minute-by-minute raw data. The calculation principles, measurement range and the full range for both 15-minute and hourly calibrated values have also been added to the Regulations. In addition, the amendments also include calculation methods for the substitution of ineffective data or to account for lost data.

8. Identification codes for fire, pausing, annual maintenance, operation suspension, and maintenance periods have been added. Regulations on the priorities and required documents for the codes have also been included.

Gaining an understanding of the operation of stationary sources and monitoring facilities behind each set of monitoring data helps competent authorities in conducting their follow-up checks. To continue increasing the quality of monitoring data collected through the CEMS and to strengthen audits and control measures, the EPA is revising regulations governing the CEMS in two stages. The first stage of revisions was announced on 12 April 2019, while the revisions this time belong to the second stage. Since public and private premises will need to replace or upgrade their monitoring and transmission equipment and also submit documents for audits, the EPA is giving them 18 months to two years to adapt to the new policies.

## Environmental Management

### EPA Holds Tour Events to Promote Greening and Cooling of Buildings

Given that global warming continues to affect our living environment, and to support this year's Earth Day theme of climate action, the EPA cooperated with the Society of Wilderness (SOW) to hold an event tour in May. The tour, titled "the Earth Day Extra Episode – Building Greening and Cooling Achievement Promotion", invited the public to take climate action in their daily lives.

To raise carbon consciousness and mobilize people in Taiwan to improve the environments surrounding their homes, the EPA has been carrying out the Low Carbon and Sustainable Homeland Rating Promotion

Program since 2015. A total of 4,374 boroughs have participated in the program, among which 881 have been certified (including bronze and silver certificates). The program allows communities to design and

implement carbon reduction measures based on local conditions. Among the 881 boroughs that received certificates from the program, 382 have adopted multi-level greening measures such as green roofs, green walls and hedges to mitigate heat. These green structures not only reduce heating of buildings through shading, thermal insulation and evapotranspiration, they also help regulate the microclimate by stimulating air circulation. According to the *Green Roof Manual* published by the Architecture and Building Research Institute of the Ministry of the Interior, these types of measures can reduce indoor temperature by 3~5°C, leading to saving 18~30% of air-conditioning energy consumption.

Data show that 69 buildings from boroughs certified with a silver rating save on average four times more energy per year than conventional buildings. In these

boroughs, the use of vegetation plays an important role for heat reduction and energy conservation. Therefore, to further promote building greening, during May the EPA cooperated with the SOW to hold a series of events in five of the selected low-carbon boroughs with silver rating.

The SOW is a domestic organization that is knowledgeable and experienced in different environmental issues, and the EPA has been working with it by holding classes on climate change. The events in May were designed in honor of Earth Day, and the EPA invited professional speakers from the SOW to make simple but effective explanations on heat mitigation for buildings through greening approaches. The events also featured visits to low-carbon facilities and DIY activities to let participants fully experience the beauty of greenery.

## News Brief

### EPA Strengthens Public Area Disinfection Work during Labor Day Weekend

During the Labor Day weekend, the EPA worked with local governments and mobilized the disinfection task force to its full capacity. From 29 April to 4 May 2020, a total of 1,550 public areas had been disinfected, including 320 transit stations, 550 commercial districts or other places that attract large crowds, and 680 parks or popular attraction sites. Local governments adjusted the disinfection frequency based on the number of visiting people to avoid affecting business operations. The EPA also urged the public to take personal health measures to protect themselves from the coronavirus during the holiday.

The disinfection task force consists of 3,000 sanitation personnel dispatched from local environmental bureaus, and has disinfected a total of 16,000 public places since it was established on 25 March 2020. During the Tomb Sweeping Festival holiday, the task force disinfected nearly 1,000 public places, among which 11 were

popular sightseeing attractions that the Central Epidemic Command Center alerted about and were disinfected within two days.



▲ Disinfection on the street

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