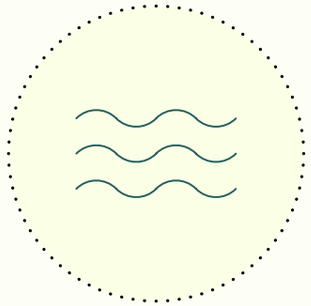
Air & Water Pollution Prevention

Kao has established strict standards that go beyond the legal requirements for the prevention of air and water pollution and is thoroughly managing emissions at each of its bases. In addition, the Company is contributing to the prevention of air and water pollution throughout society through its products and technologies.



Risks

- Increased costs due to stricter regulations on air and water pollution in factories and supply chain areas, and deterioration in profits due to operational shutdowns caused by regulatory violations
- Declined competitiveness and worsening profitability due to increased costs caused by the stagnation of technological development related to air and water pollution
- Declined reputation and corporate value if insufficient action is taken to address air and water pollution

Opportunities

- Stabilization of operations through the prevention of air and water pollution in production, and the reliable realization of corporate and business strategies
- Expanded profits through increased demand for products that contribute to the prevention of air and water pollution and increased competitiveness
- Enhanced corporate value through increased trust from the local community in the plant area

Strategy

Plants	(1) Accurate management to prevent air and water pollution
	(1) Reduce emissions of chemical substances
	(1) Prevent air pollution caused by fuel combustion
	(2) Reduce emissions of volatile organic compounds (VOCs)
	(2) Prevent water pollution caused by wastewater discharge
	(2) Prevent groundwater and soil contamination
Products	(3) Contribute to the prevention of air and water pollution caused by products
	(3) Prevent water pollution caused by wastewater from product use
Logistics	Prevent air pollution in logistics

Metrics, targets and results

Metrics	Targets	2024 results
% of plants which disclose VOC and COD pollution load (1)	100% 2025	VOC 94% COD 100%
Number of deviations from environmental laws and regulations (1) (2)	–	0
Total emissions of chemical substances subject to the PRTR system (2)	–	5.2 tons
NOx emissions (1)	–	377 tons
SOx emissions (1)	–	37 tons
VOC emissions (1)	–	5 tons
COD pollution load (2)	–	227 tons
Environmental risk assessment of surfactants (3)	–	Low

Initiatives

- Monitoring and management using self-imposed controls stricter than regulatory values, and compliance
- Management and reduction of emissions of substances subject to the Japanese PRTR system
- Use of fuels with low air pollution
- VOC emission management and reduction
- Management and reduction of pollutants associated with wastewater
- Investigation and prevention of groundwater and soil contamination
- Water based pigmented inkjet ink that contribute to the prevention of air pollution
- High-performance specialty thickener that contributes to the prevention of water pollution
- Environmental risk assessment of surfactants (Participation in industry activities)
- Smart logistics in collaboration with Lion Corporation

Financial impact

- Environmental Conservation Cost – Investment Amount: 4,744 million yen
- Economic effects as a result of environmental conservation measures: 5,456 million yen
- Total fines for environmental law violations: 35 million yen

Environmental and social impact

- Contribution to the conservation of the ecological system by preventing pollution in the area around plants
- Protect the health of residents living near plants and preserve their living environment by improving the air quality

* The numbers at the end of the metrics, targets, and initiatives indicate the strategy identifiers.

Strategy

Towards reducing the risk and creating opportunities for air & water pollution prevention, we are implementing strategies that are unique to Kao, are effective, and contribute to business growth and solving social issues.

Social issues

For Kao to remain a sustainable and competitive entity, it is essential to have an accurate understanding of social issues. An understanding of social issues will not only mitigate business risks for Kao, but will also be an important starting point for identifying new business opportunities that will drive growth. Kao recognizes the following social issues related to this theme.

- Health hazards caused by air, water and soil pollution, and destruction of the ecological system
- Soil and groundwater pollution caused by chemical substances and agricultural chemicals
- Unhygienic living environments caused by water pollution

Risks and opportunities

In this business environment, which includes these social issues, Kao faces various risks, but is also identifying new business opportunities. Identifying these risks and opportunities is an important process in formulating corporate strategies and measures. The main risks and opportunities identified by Kao in this theme are as follows.

Risks

- Increased costs due to stricter regulations on air and water pollution in factories and supply chain areas, and deterioration in profits due to operational shutdowns caused by regulatory violations
- Declined competitiveness and worsening profitability due to increased costs caused by the stagnation of technological development related to air and water pollution
- Declined reputation and corporate value if insufficient action is taken to address air and water pollution

Opportunities

- Stabilization of operations through the prevention of air and water pollution in production, and the reliable realization of corporate and business strategies
- Expanded profits through increased demand for products that contribute to the prevention of air and water pollution and increased competitiveness
- Enhanced corporate value through increased trust from the local community in the plant area

Strategy

Kao has formulated the following strategies to address the identified risks and opportunities. Kao is working to reduce risk by appropriately managing the areas and substances subject to pollution based on the characteristics of its plants and external requirements such as legal regulations. Kao will leverage its long-cultivated knowledge of pollution response and its activities in the global chemical industry to promote a comprehensive strategy for a sustainable environment, with the aim of realizing the basic policy of its Mid-term Plan K27 of Becoming an Essential Company in a Sustainable World.

(1) Appropriate management to prevent air pollution

Prevent air pollution in the areas around our plants by closely monitoring and managing the amount of air pollutants such as NOx, SOx, and VOCs emitted by each plant, and strictly controlling them by setting standards that exceed legal regulations.

Related initiatives: P155 Initiatives to prevent air pollution in plants, P156 initiatives to prevent air pollution through product development and provision of products

(2) Accurate management to prevent water pollution

Reduce the amount of organic matter and other substances contained in plant wastewater, and prevent water pollution in the areas around plants by strictly controlling the amount of substances contained in the wastewater, setting standards that exceed legal regulations.

Related initiatives: P155 Initiatives to prevent water pollution at plants, P156 initiatives to prevent water pollution through product development and provision

(3) Contribution to the prevention of air and water pollution through products

Contribute to the prevention of air and water pollution for customers and society through Kao products and technologies. In doing so, create value that contributes to solving environmental issues.

Related initiatives: P156 Initiatives to prevent air pollution through product development and provision of products, P156 initiatives to prevent water pollution through product development and provision of products

Impact generated by implementing the strategies

We believe that the aforementioned strategies will have the following financial, environmental and social impacts.

Financial impact

- Increase sales of eco-friendly products that contribute to the prevention of air and water pollution
- Reduce costs related to fines and lawsuits for non-compliance with environmental regulations

Environmental and social impact

- Contribution to the conservation of the ecological system by preventing pollution in the area around plants
- Protect the health of residents living near plants and preserve their living environment by improving the air quality

Strategic resilience

Kao is working to prevent air and water pollution by thoroughly managing emissions at each of its bases and improving wastewater treatment technology. By operating strict standards that exceed legal requirements, we ensure compliance with global regulations and minimize business risks. Furthermore, we are committed to resolving social issues and enhancing corporate value by providing products and technologies that contribute to environmental conservation. These efforts have given us the resilience to respond flexibly and quickly even when risks materialize.

Metrics and targets

To enhance the effectiveness of our strategies, we have established performance metrics related to risks and opportunities, and we regularly monitor our progress. We have set targets for the metrics related to particularly significant risks and opportunities, and we are steadily promoting initiatives by utilizing the PDCA cycle to check the status of achievement of these targets.

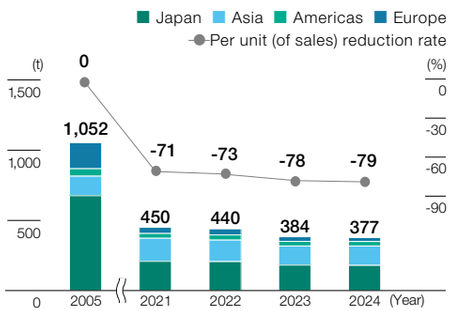
Targets and progress

Strategy	Metrics	Results					Mid- to long-term targets	
		2020	2021	2022	2023	2024	Target value	Year
(1)	% of plants which disclose VOC and COD emissions	VOC 0% COD 100%	VOC 65% COD 100%	VOC 68% COD 100%	VOC 84% COD 100%	VOC 94% COD 100%	100%	2050

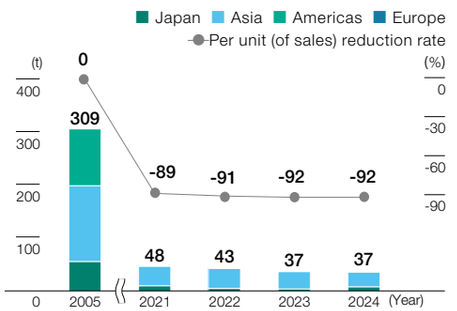
Metrics and results

Strategy	Metrics	Results		
		2022	2023	2024
(1)	NOx emissions (all production sites)	440 tons	384 tons	377 tons
(1)	SOx emissions (all production sites)	43 tons	37 tons	37 tons
(1) (2)	Total emissions of chemical substances subject to the PRTR system	0.6 tons	0.5 tons	0.8 tons
(1)	VOC air emissions of chemical substances subject to the PRTR system ☑ Boundary: Kao Group production sites in Japan	6.8 tons	5.0 tons	4.1 tons
(1) (2)	COD pollution load (all production sites)	229 tons	206 tons	227.1 tons

NOx emissions ☑ (all production sites)

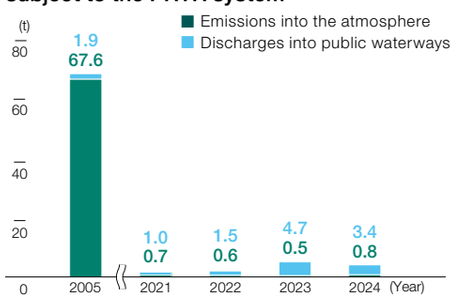


SOx emissions (all production sites)



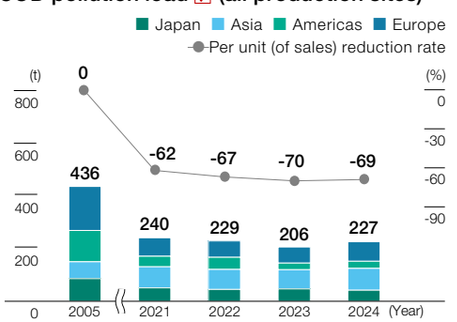
* Assurance provided for NOx emissions
* The 2023 figure has been revised due to a correction in NOx emissions at the Asia site.

Total emissions of chemical substances subject to the PRTR system



* The PRTR Law changed in April 2023, so the figures for 2023 are the actual results for the period from April to December for the chemical substances subject to the law after the change.

COD pollution load ☑ (all production sites)



* The amount of COD pollution load for wastewater entering sewage systems takes into account the removal rate from sewage systems.
* Assurance provided for COD pollution load

Emissions of VOCs

Although we have no facilities subject to the VOC emission regulations provided in the Air Pollution Control Law, we work to voluntarily cut VOC emissions. For the 100 VOC substances defined in the notice issued by the Director General of the Environmental Management Bureau, Ministry of the Environment, we set voluntary targets on the annual atmospheric emissions from each plant for each substance (5 tons or less in 2005, 3 tons or less in 2009, 1 ton or less in 2010), conducted emission reduction activities and accomplished our targets. We are managing VOC emissions with the current target of maintaining our activities. Plants of the Kao Group in Japan handled 30 types of VOCs in quantities over 1 ton in 2024, with total emissions into the atmosphere of 4.1 tons ☑.

Compliance with environmental legislation

In 2021, there was a failure to install sufficient gas detection equipment at Kao Huludao Casting Materials Co., Ltd. (fine of 542,000 yen), a failure to report the designated manager (fine of 1,444,000 yen) at the same company, and an exceedance of hydrogen sulfide limits at Kao USA Inc. (fine of 1,192,000 yen). In 2024, Quimi-Kao in Mexico was fined 4.3 million Mexican pesos (32 million yen) for failing to submit cogeneration system operation data to the authorities. Additionally, the KCSA Olesa plant in Spain paid a fine of 12,000 euros (2 million yen) for exceeding NOx regulatory limits and 6,296.40 euros (1.01 million yen) for exceeding permitted water usage volumes.

Compliance with environmental laws and regulations

Classification	Unit	2020	2021	2022	2023	2024
Number of deviations*1	Cases	4	3	0	0	3
Of which, number of leaks	Cases	1	0	0	0	0
Total fines*2	1,000 yen	607	3,178	–	–	35,010
Of which, number of leaks	1,000 yen	460	0	–	–	–

*1 All incidents detected by authorities during the reporting period
*2 Fines paid during the reporting period

Governance

Under the supervision of the Board of Directors, risk management related to air & water pollution prevention is carried out by the Internal Control Committee, and opportunity management is carried out by the ESG Committee. These committees are both headed by the President & CEO.

Furthermore, as a specific initiative focused on preventing air & water pollution, the Responsible Care Promotion Committee, chaired by the Managing Executive Officer (in charge of the Corporate Strategy), meets once a year. This committee formulates policies, plans for the next fiscal year, evaluates performance, identifies areas for improvement, and reports the results of these activities to the Internal Control Committee.

P34 Our ESG Vision and Strategy > Governance

Responsible Care (RC) activities
https://www.kao.com/content/dam/sites/kao/www-kao-com/global/en/sustainability/pdf/our_foudations2025-e-02.pdf

Risk and opportunity management

Policies

In implementing its Air & Water Pollution Prevention, Kao has established the following policies as guidelines for its daily operations and decision-making. For details, please see the website.

- Basic Principle and Basic Policies on Environment and Safety
  https://www.kao.com/global/en/sustainability/klp/policy/environment-safety-policy/
- Kao Group Responsible Care Policy
  https://www.kao.com/global/en/sustainability/klp/policy/responsible-care-policy/
- Kao Environmental Statement
  https://www.kao.com/global/en/sustainability/klp/policy/environmental-statement/

Management process

The status of our initiatives to address the risks and opportunities associated with Air & Water Pollution Prevention is managed through the following process: planning, implementation, evaluation of results, and corrective action, and we are working to make steady improvements.

Overall management process (outside of sites) of Air & Water Pollution Prevention

P (Planning)

Design of activities for the following year (Nov.-Dec.), approval of targets (Feb.).

D (Implementation)

Improvement and promotion activities (from Feb.)

C (Evaluation of results)

Aggregation of results (until Apr.), reporting of results in the Sustainability Report (June).

A (Corrective action)
Reflection and identification of areas for improvement (June).

Site management process

P (Planning)
The RC Promotion Committee formulates company-wide targets (Sept.) and annual plans for each site (until Dec.).

D (Implementation)
Please see our initiatives (P155-157).

C (Evaluation of results)
Internal inspection (until July), RC secretariat audit, ISO14001 internal audit, external audit, etc. (around Aug.).

A (Corrective action)
Corrective action requests within the workplace, corrective action requests from the ISO Central Secretariat, corrective action requests from the RC Secretariat, etc.

Initiatives

Kao is engaged in a variety of initiatives aimed at Air & Water Pollution Prevention. These initiatives are based on the aforementioned strategies and are being promoted in collaboration with each other to achieve our targets. Here, we will introduce some of the important initiatives from among the many we are engaged in.

Strategy	Initiatives	
(1) Appropriate management to prevent air pollution	Using cleaner fossil fuels	Reducing emissions of chemical substances subject to PRTR
(2) Accurate management to prevent water pollution	Compliance with wastewater-related laws and regulations	Surveys of groundwater and soil contamination
(3) Contribute to the prevention of air and water pollution through products	Prevention of contamination by chemical products such as pigment ink and commercial cleaning agents	Monitoring through field surveys such as river environment monitoring

Initiatives to prevent air pollution in plants

Region: Global
Corresponding strategy: (1)

Using cleaner fossil fuels
To reduce emissions of NOx, SOx, PM, etc. generated during the combustion of fuel, we now use natural gas, a clean fossil fuel, at all our plants with the necessary infrastructure, and have discontinued the use of coal.

Reducing emissions of chemical substances subject to PRTR
In FY2000, we set a voluntary target to reduce the annual emissions of each substance from each plant to 1 ton or less and achieved this target in FY2002. Since then, we have continued to achieve this voluntary target, excluding leaks of chlorofluorocarbons and similar emissions.

In 2024, 125 target chemicals were handled in quantities of one ton or more, with a total emissions into the atmosphere and public waters of 4.2 tons. In addition, we are voluntarily monitoring and controlling releases and transfers (in the same way as would be done for chemical substances subject to PRTR) of chemical substances that the Japan Chemical Industry Association has specified as being subject to voluntary surveys.

Reducing emissions of VOCs
Some of our plants outside Japan have not yet been able to accurately assess their VOC emissions, and some of them are also high emitters. Kao is accelerating its investigation of the emission status at these plants and is actively introducing measures to reduce emissions.

* Since the chemical substances subject to the PRTR Law were changed in April 2023, we have not been able to compile data on the volume of chemical substances handled, emissions, etc. for the full year of 2023.

Initiatives to prevent water pollution in plants

Region: Global
Corresponding strategy: (2)

Compliance with wastewater-related laws and regulations

Kao has installed wastewater treatment facilities at many of its plants to minimize the impact of wastewater from its plants on the local water environment. Wastewater is treated to a high standard before being discharged outside the plant.

In addition to ensuring compliance with the wastewater regulations stipulated by law, Kao has established its own stricter management standards, which are monitored on a daily basis.

Surveys of groundwater and soil contamination

To clarify the impact of chemical substances used in the past, we measure environmental standard substances in groundwater on the premises of each plant every year.

Initiatives to prevent air pollution through product development and provision of products

Region: Global
Corresponding strategies: (1) (3)

LUNAJET water based pigmented inkjet ink

The world's first water based pigmented inkjet ink, *LUNAJET*, which applies pigment nano-dispersion technology cultivated by Kao, has a VOC-free*1 design that emits extremely low levels of VOCs during printing, making a significant contribution not only to the prevention of air pollution but also to the improvement of the working environment for workers in printing operations. Furthermore, this water based pigmented inkjet ink technology can be applied to water-based gravure-printing ink and is expected to contribute to a wider range of applications.

https://chemical.kao.com/global/digital-printing-materials/lunajet/

Visco Top UT thickener for concrete spraying construction

Kao has developed a thickening agent called *Visco Top UT* that greatly reduces the amount of dust generated during the spraying of concrete in mountain tunnel construction and has begun full-scale sales of the product. Even when using a "powder quick-hardening agent" that tends to scatter dust, *Visco Top UT* can achieve a dust concentration of 2 mg/m^3 or less (dust guidelines enforced from 2021) with half the amount of a typical dust reducer, making a significant contribution to improving safety at work sites. Furthermore, this technology has already been registered with the New Technology Information System (NETIS)*2 (number KT-200035-A), and it is expected to be adopted for various tunnel construction projects ordered by the national government and local public bodies.

*1 VOC-free: VOC emissions (carbon equivalent) in the printing process are 700 ppmC or less.
*2 NETIS: A database system operated by the Ministry of Land, Infrastructure, Transport and Tourism for the purpose of sharing and providing information on new technologies.

https://chemical.kao.com/global/infrastructure/product/viscotop/

Initiatives to prevent water pollution through product development and provision of products

Region: Japan
Corresponding strategies: (2) (3)

Visco Top surfactant liquid thickener

Construction work carried out near rivers, coasts and other bodies of water requires environmental measures to prevent water pollution. In the case of bridge pier construction for long bridges or suspension bridges that cross ocean straits, because the piers are actually built in the river water or seawater, special underwater concrete that has high viscosity and is resistant to washout is used. Furthermore, when construction is undertaken near underground watercourses, care must be taken not to contaminate the groundwater. In this kind of water-related environment, thickening agents must be added to inorganic materials such as grouting materials and concrete to enhance water-immiscible properties.

Kao's high-performance specialty thickener *Visco Top* makes it possible to achieve high-viscosity injection materials and concrete that are superior to conventional products

and enables high-quality construction while preventing environmental pollution near bodies of water. It has also been used in the removal of highly contaminated water at the Fukushima Daiichi Nuclear Power Plant and has a proven track record.

Smash alkali-free professional-use detergent

Alkaline detergents, which are effective for removing stubborn grease and oil stains from kitchen surfaces, need to have their pH adjusted and neutralized when the cleaning solution is drained to prevent water pollution. On the other hand, mild cleansers, which do not contain alkali, generally tend to lack cleaning power.

Kao's new kitchen grease and oil stain detergent Smash has the same cleaning power as alkaline detergents, but is neutral in formulation, so it is safe and gentle on materials, and contributes to the prevention of water pollution.

https://pro.kao.com/jp/products/kps05/4901301384201/

Monitoring of wastewater after product use

We are focusing on understanding the actual situation in relation to wastewater discharge after product use and we are conducting our own field surveys on an ongoing basis, such as environmental monitoring of river water to get an idea of the ecological risks of chemical substances.

In response to the globalization of our business, we have been working with experts to verify the usefulness of simulation models that predict river water concentrations and develop new models, as well as to conduct monitoring activities outside Japan, with the aim of carrying out eco-friendly business activities in each region.

In recent years, we have been analyzing the impact of chemical substances on ecological system in detail, using data from ecological monitoring and river environment monitoring in Japan. Kao also participates in environmental monitoring conducted by the Japan Soap and Detergent Association. Currently, we are monitoring four representative types of surfactants in urban rivers (four rivers, seven locations, four measurements per year) to assess the environmental risk to ecological system. The results of previous surveys have confirmed that the risk to aquatic organisms from these surfactants is consistently low.

Employees' opinions

Air & water pollution prevention as the origin of ESG activities

Yohei Kaneko
ESG

I have long been involved in the development of materials used in Kao products. Currently, I work to promote ESG initiatives.

Looking back on my career, I believe that the origin of Kao's ESG strategy, the Kirei Lifestyle Plan (KLP), lies in air & water pollution prevention.

In the 1970s, air & water pollution had become serious social issues in Japan. Material development was based on the premise that the materials must be "safe for the people working at the plant and for the local community" and "safe even after being discharged into the environment following household use." While these are governed by legal standards, Kao manages them using even stricter internal standards. This approach is the very foundation of our ESG initiatives.

Ensuring "safety for the people working at the plant and for the local community" goes beyond simply implementing air & water pollution prevention. It also extends to emergency drills, health check-ups, and safety education for all employees, including those working in offices. These efforts are directly tied to the health and safety of our employees, which is part of our commitment to respect human rights. Working in a safe workplace is a fundamental labor right and a core element of our human rights efforts.

In addition, at Kao, we focus not only on the people working at our sites, but also on the living organisms present there. Activities such as monitoring biodiversity within plants and other worksites, and the removal of invasive species, are rooted in our efforts in air & water pollution prevention. These activities have expanded beyond our employees and sites, reaching our suppliers as well, and are linked to responsible raw material procurement.

Meanwhile, our responsibility for ensuring products are "safe even after being discharged into the environment following household use" goes beyond the ingredients used. It also extends to packaging and containers, and is connected to our zero waste initiatives. We have broadened the scope of air pollution from its initial focus on SOx and NOx to include carbon dioxide in order to contribute to decarbonization, and we are also addressing water pollution by focusing on water usage, which ties into our efforts in water conservation.

Initially centered on the safety of people working in plants and surrounding communities, our air & water pollution prevention activities, as reported in this publication, have become more advanced and have expanded in scope and perspective, now linking to a wide range of ESG initiatives. In the area of responsible chemicals management, we are not only conducting risk assessments and ensuring the safe handling of chemical substances, but also aiming for integrated management that contributes to the creation of a safe and secure society. This approach to production, based on responsible chemicals management, forms the foundation for both safer, healthier products and purpose-driven brands, and serves as a starting point for transformative innovation.

Looking ahead, our focus will be on fully committing to preventing pollution while working with our partners to implement manufacturing practices that maximize value with minimal chemical use and minimize pollution sources themselves. We will continue strengthening our initiatives so that Kao can become a leader in eliminating pollution, one of the three major crises facing the planet.

Stakeholder engagement

Evaluation and expectations for Kao's initiatives in air & water pollution prevention

Kenji Furukawa
Professor Emeritus, Kumamoto University

Reading the Kao Sustainability Report 2024 revealed Kao's corporate stance of actively contributing to the realization of a sustainable society by offering products with low environmental impact that consider both environmental conservation and human safety. Kao's corporate activities have been highly rated by the environmental NGO CDP, and the company has been selected for the A List (as a Triple A company) for five consecutive years in all categories—climate change, forests, and water security.

Below are my comments on Kao's FY2024 initiatives in air & water pollution prevention, based on Kao's published sustainability report and environmental data.

1. Initiatives for air pollution prevention

As global efforts toward decarbonization accelerate, Kao has set ambitious targets of achieving carbon zero by 2040 and carbon negative by 2050, and is actively working to reduce CO_2 emissions from its own sites. The reduction in CO_2 emissions achieved at many of its domestic sites compared to the previous year is commendable.

To achieve these goals, Kao is reducing energy consumption and increasing the ratio of renewable energy in its purchased electricity. However, from a cost-efficiency standpoint, the margin for further reductions is limited, so alternative approaches will be needed moving forward.

Kao has also made steady progress in reducing NOx emissions, achieving a 78% reduction compared to 2005. This progress is attributed not only to reductions at high-emission domestic sites such as the Wakayama Plant, but also to significant NOx emissions reductions at sites outside Japan, particularly in Southeast Asia. Kao is encouraged to identify the factors that contributed to this progress and use them to further reduce NOx emissions. That said, as long as natural gas is used as fuel, there will be limits to how much NOx emissions can be reduced. The greater adoption of renewable energy will be essential. I hope to see more active installation of photovoltaic power panels in unused areas within plants. Kao should also consider using emerging technologies like perovskites, as well as installing photovoltaic power panels above wastewater treatment facilities. I encourage the company to actively pursue such efforts and enhance their active information provision on these initiatives.

Kao is working to better grasp the CO_2, SOx, NOx, and VOC emissions from its sites outside Japan, but there are still sites where data collection is yet to be completed. In particular, NOx emissions are high at sites in Southeast Asia, Mexico, and Spain. Even if these sites remain below local emission limits, Kao is encouraged to aim for reductions that align with the domestic emission standards in Japan.

2. Initiatives for water pollution prevention

Kao is steadily reducing COD emissions resulting from its business activities. The majority of these emissions come from the Wakayama Plant, where further reductions will be essential. Looking ahead, COD emission reductions will hinge on the performance of sites in Southeast Asia, specifically, in the Philippines, Thailand, Malaysia, and Indonesia. We hope Kao will conduct wastewater treatment at levels below local discharge standards, leading to further reductions in COD emissions.

3. Sludge volume reduction

Kao has begun identifying wastewater streams suitable for sludge volume reduction treatment using the food chain and is moving toward practical implementation. Since nitrification progresses during sludge volume reduction, circulating the mixed liquor in the aeration tank internally can both remove nitrogen and reduce aeration volume, facility design should take the above into account.

At Kao, limited plant space makes it difficult to construct new treatment facilities. Therefore, the company should gather information on the latest wastewater treatment technologies and consider installing energy-efficient, space-saving systems with a small footprint.

4. Expectations for Kao

Beyond reducing its environmental impact, Kao is also in the spotlight for developing original, environmentally friendly technologies and products. The company developed an asphalt modifier using waste materials from plastic PET bottles, successfully enhancing the durability of asphalt pavement. This technology has been highly praised for contributing to the realization of a circular economy, earning the Minister of Economy, Trade and Industry Award in the FY1994 Resources and Environment Technology and System Awards. Another notable product, Toilet Magiclean Foam Pack, which makes scrubbing-free toilet cleaning easy, won the 2024 Nikkei Superior Products and Services Award—Trend Category. We hope Kao will continue to actively promote the development of products that reduce environmental impact and gain strong support from consumers.

As the second Trump administration pushes an "America First" agenda, we may be entering a "G-Zero" era, where no country leads the international order. There is growing concern that some companies in the Americas are becoming less committed to environmental action. As the frequent reports of extreme weather events in 2024 clearly show, this is not the time to delay action against global warming. As a global top company recognized for its environmentally conscious management, Kao is expected to set an example in advancing decarbonization-driven management on a global scale.