

# Hiratsuka Factory (HP)

## Business activities

Design, basic research, development and evaluation of aircraft parts, sporting equipment, adhesives and sealants, conveyor belts, marine hoses, fenders and other industrial products

## Total site area

255,811 m<sup>2</sup> (including Adhesives and Sealants Plant)

## Number of employees

1,903 (as of December 2021)

## Location

2-1, Oiwake, Hiratsuka City, Kanagawa 254-8601, JAPAN

## Contact for consultation and complaints

General Affairs Group, Hiratsuka Factory Tel: +81-463-35-9501 Fax: +81-463-35-9746



## Message from the General Manager



Takashi Shirokawa

While continuing to serve as a “base for the dissemination of technologies and monozukuri manufacturing expertise throughout the Yokohama Rubber Group,” the Hiratsuka Factory is also aiming to be a “factory that maintains the affection and unwavering trust of both customers and the community,” in line with Yokohama Rubber’s CSR Vision. Within this strategic framework, in the environmental sphere the Hiratsuka Factory is focusing in particular on reducing leakage and noise pollution, which can have a pronounced negative impact on the local environment, to zero, while in regard to safety the Hiratsuka Factory will be striving to eliminate accidents that are serious enough to require employees to take time off work, by ensuring that everyone who works at the Hiratsuka Factory puts safety first; in addition, as a factory belonging to a company that plays a key role within the automotive industry, the Hiratsuka Factory will also be seeking to reduce road accidents in which people are injured to zero. In terms of disaster prevention, we are working to improve the level of fire and disaster prevention based on our internal guidelines, and to build a BCP to prepare for

disasters as a priority issue.

Furthermore, in every aspect of our business operations our actions will embody not only strict adherence to compliance-related regulations, we also act with the motto of “coming home with a smile every day” with an awareness of compassion for people, customer satisfaction, employee satisfaction and social contribution.

In FY2021, as in the previous year, activities will continue to be conducted within COVID-19, and unfortunately we have had to cancel various events that serve as opportunities for exchange. Despite these circumstances, we are continuing to carry out steady activities within the company, such as seedling cultivation at the Millennium Woods.

We are also making preparations for the relocation of our head office to Hiratsuka in 2023. We will proceed with construction so as not to inconvenience our neighbors, and at the same time, we will make preparations to create an office that will be appreciated by our employees who will commute to Hiratsuka, our customers, and the local community.

We will also continue to engage in various CSR activities to contribute to the development of the Hiratsuka area.

## **Organizational Governance**

### **Publicizing and sharing policies and issues**

In that it represents a combined location, the Hiratsuka Factory hosts multiple business departments, production plants and R&D facilities. Close attention is thus paid to thoroughly publicizing policies and issues that involve the entire factory. We also strive to improve communication.

We strive for smooth plant management by making the director's policies and safety and environmental policies known at the plant-wide morning meeting each term, and by making various performances known and sharing topics, etc. at the monthly plant meeting.

### **Improved functionality through management systems**

We appropriately operate safety and environment in accordance with OSHMS and ISO 14001 management systems. We also implement continuous improvement through the PDCA cycle in the management system.

## **Labor Practices**

To ensure compliance with laws and regulations, we conduct monthly compliance training for each department, striving to increase employee knowledge and awareness.

In addition, in order to realize appropriate working hours, labor and management check working hours, etc., and the top management of labor and management conducts patrols to ensure proper management of work styles.

Furthermore, to improve the workplace environment, labor and management discuss items for improvement and promote improvements. In response to COVID-19, remote work is encouraged and a remote work environment has been created. Through these various measures, we are continuing to create an environment in which employees can work with peace of mind.

### **Promotion of gender equality**

In fiscal 2021, the ratio of female staff in career-track positions stood at 20.6%.

We will continue to promote the hiring of female employees and promote work-life balance through the use of childcare leave and shorter working hours, the use of hourly paid leave system, flextime system and telecommuting system.

### **Promotion of employment of people with disabilities**

As of the end of December 2021, the employment rate of persons with disabilities was 3.20%.

We will continue to promote the employment of people with disabilities and work to create a workplace environment where people with disabilities can work with vigor and enthusiasm.

## Occupational safety and health management

Since the Hiratsuka Factory acquired Occupational Safety and Health Management System (OSHMS) certification in July 2010, we have conducted OSHMS-based occupational safety and health management. This work has been mainly built around continuous risk assessment and KY (Hazard Prediction) activities, etc.

When new operational processes are introduced or changes are made to existing operations, we hold "open work observations," which allow many employees to witness work practices and identify hidden risks. We do this so as to further work improvement that makes work practices even safer.

Furthermore, we comply with safety and health statutory requirements, and proactively promote both employees' acquisition of qualifications and educational activities. We also work to develop human resources and prevent disasters.

### Traffic Safety

In order to reduce the number of traffic accidents, we provide traffic safety guidance and conduct road safety seminars for all employees twice a year. Each month, we conduct traffic safety education and other activities at each workplace. Furthermore, we have designated the first day of every month as "Traffic Safety Day" at the Hiratsuka Plant, and are enhancing the traffic safety awareness of all employees through broadcasts within the plant. We are aware of our responsibility as a company that plays a part in the automotive industry, and are working to prevent traffic accidents.

### Health management

We follow up to ensure that 100% of our employees receive the various medical examinations required by law, including regular medical checkups and special medical checkups.

We also provide mental health care to employees who have concerns about their work or life by offering counseling opportunities by professional counselors.

As a countermeasure against COVID-19 infection, we have implemented all the usual measures and conducted corona vaccine inoculations at workplaces.

## The Environment

### Environmental management

The Hiratsuka Factory continues to operate environmental management based on ISO 14001 environmental management system certification, which was acquired in July 1999.

From fiscal 2012, it converted to an environmental management system integrating the entire company as one site of Yokohama Rubber. We will continue to deploy activities based on the company-wide environmental policy.

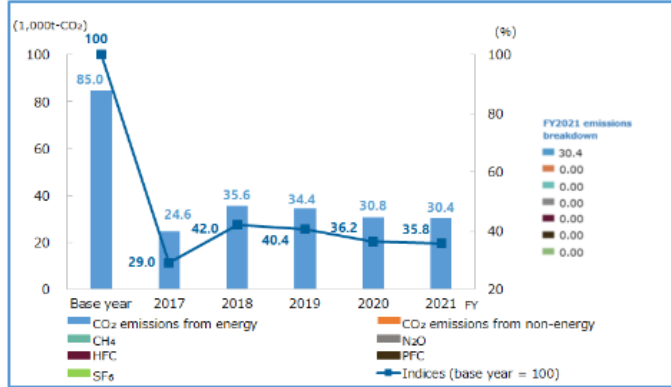
As the Hiratsuka Factory holds a wide range of business organizations, from plants with different production methods to the technical research and development department of the entire company, it divides them into 9 environmental blocks to advance daily environmental improvement activities under the Hiratsuka Factory Environmental Policy in compliance with the company-wide environmental policy.

# Environmental data

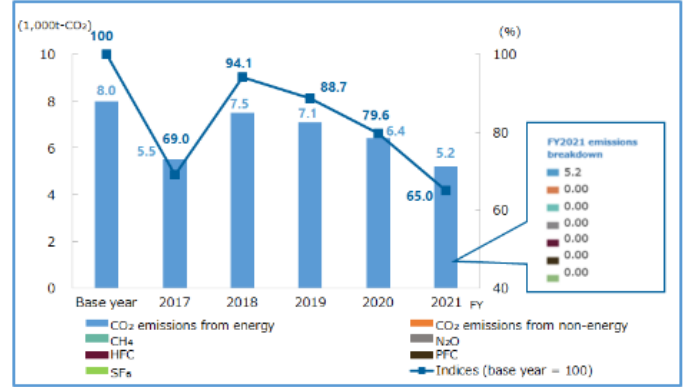
## Reduction of greenhouse gas emissions

### Greenhouse gas emissions

#### Hiratsuka Factory



#### Adhesives and Sealants Plant



※The base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

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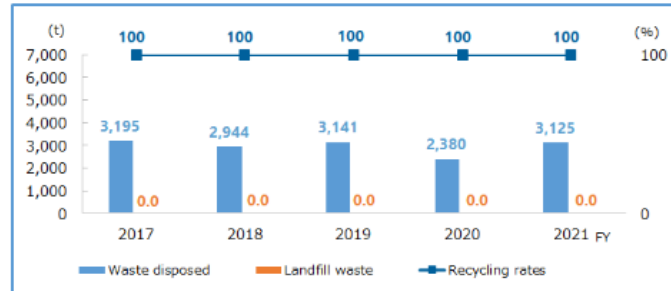
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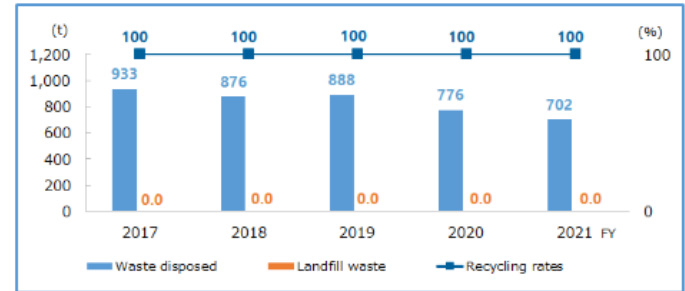
## Effective use of resources / Reduction of waste

### Waste output

#### Hiratsuka Factory

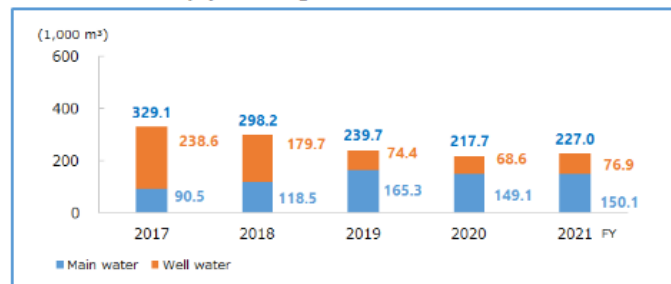


#### Adhesives and Sealants Plant



### Water Usage

#### Hiratsuka Factory (including the Adhesives and Sealants Plant)



## Measures for discharges into water, air and soil

### Data related to water contamination

Drain	Item	Regulatory values	Voluntary standard values	FY2021 results		
				Average	Maximum	Minimum
Hiratsuka Factory	pH	5.0~9.0	5.18~8.7	7.7	8.3	7.0
	BOD concentration (mg/l)	600	430	60	170	11
	SS concentration (mg/l)	600	190.0	31	74	2
	Animal and plant oil concentration (mg/l)	30	15.0	3	6	1
	Mineral oil concentration (mg/l)	5	3.1	1	2	1

※In accordance with the Hiratsuka Municipal Sewerage Ordinance.

### Air pollutants (NOx, SOx)

Substance	NOx emissions (t/year)	SOx emissions (t/year)
Hiratsuka Factory	3	—

Facility	Substance	Regulatory values	Voluntary standard values	FY2021 results		
				Average	Maximum	Minimum
Hiratsuka Factory Boilers 1	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	45.0 9.3	23.0 5.0	22.0 4.3
Hiratsuka Factory Boilers 2	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	46.0 9.4	24.0 4.7	22.0 4.7
Hiratsuka Factory Boilers 3	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	46.0 8.5	24.0 4.3	22.0 4.2
Hiratsuka Factory Boilers 4	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	43.0 9.1	22.0 4.8	21.0 4.3
Hiratsuka Factory Boilers 5	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	46.0 7.8	24.0 4.2	22.0 3.6
Hiratsuka Factory Boilers 6	Nox (ppm) Soot and dust (g/h)	150 635.4	31.0 51.9	44.0 9.1	22.0 4.8	22.0 4.3

※In accordance with the Air Pollution Prevention Law and Kanagawa Prefectural Ordinance.

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Hiratsuka Factory verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

➤ [the Safety Evaluation Table of Domestic Production Bases.](#)

### Pollution prevention

We have established self-administered values that are even stricter than regulated targets so as to strictly observe all environmental laws and ordinances concerning air pollution, water contamination and noise, etc. We take steps to monitor and measure these values.

Furthermore, to ensure that no sensory discomfort resulting from noise, vibrations and odors, etc. is caused to neighborhood residents, we have established monitoring points outside the factory grounds and are working to prevent such issues.

With respect to PCB waste within the factory, it is suitably handled in accordance with the relevant laws and regulations.

### Use of sustainable resources

We are taking steps to reduce overall volumes year-on-year by placing a top priority on the goals and targets of the ISO 14001 management system with respect to reductions in industrial waste, organic solvents, greenhouse gas emissions and water usage.

### Alleviating and adapting to climate change

During "Energy Saving Month" in February and "Environment Month" in June, we set up priority measures in each of our original operations and report on energy saving achievements, while division managers of each block conduct environmental patrols.

On February 3, 2022, Yokohama Rubber's Hiratsuka Factory received the "FY2021 Kanto Bureau of Economy, Trade and Industry Director-General's Award for Excellent Energy Management Businesses" from the Kanto Bureau of Economy, Trade and Industry, Ministry of Economy, Trade and Industry.

The award is given to outstanding enterprises in the 10 prefectures of Tokyo that are under the Kanto Bureau of Economy, Trade and Industry's jurisdiction that have made outstanding efforts to promote energy management, and that have achieved significant results and set a good example for others to follow.

The Hiratsuka Plant received the award for its excellent energy conservation performance over the past five years, advanced energy conservation improvement activities as typified by "boiler system improvement," and awareness, dissemination, and guidance of energy management technology outside the company (industry associations, etc.).

## Environmental protection, recovery of natural habitats

Since fiscal 2013, we have been conducting biodiversity conservation activities to protect water resources in the local Kaname River system. Employees have participated in a series of hands-on monitoring activities to examine the environment of the Kaname River, with a cumulative total of 346 employees taking part.

Currently, activities are being conducted in a satoyama in the city located upstream of the Kaname River.

Specifically, with the objectives of recharging the water source of the Kaname River and restoring the original landscape of the satoyama, we are conducting conservation activities in collaboration with local groups and university laboratories, including the installation of handmade biotopes, and monitoring changes in the ecosystem.

Furthermore, since FY 2017, we have installed a dragonfly pond on the Hiratsuka Factory premises as a familiar activity site to observe the connections among dragonflies and other living creatures. In March 2017, the Hiratsuka Factory received the "Association for Business Innovation in Harmony with Nature and Community Certificate® (ABINC certification)" as a biodiversity-conscious plant in recognition of these biodiversity activities and the ongoing CO<sub>2</sub> absorption and fixation amount survey conducted in conjunction with the growth of the Yokohama Forever forest planted around the plant in 2007.



Fox photographed in a satoyama (semi-threatened species in Kanagawa Prefecture)



A damselfly at the dragonfly pond



ABINC logo mark

## Fair Operating Practices

### Impartial and fair selection of business partners

To ensure fair selection of suppliers, we conduct a survey on whether or not there are any personal relationships between the targeted suppliers and our employees when we hire new suppliers.

Other selection is based on economic rationality, taking into consideration the supplier's quality, price, supply stability, technological development capabilities, and CSR and environmental considerations.

### Establishment of a "Procurement Code of Conduct" and its thorough implementation

With the "Basic Procurement Policy", we prepared the "Procurement Ethics (Rules for Procurement Staff)" to indicate matters to be noted by procurement staff when conducting fair and impartial transactions and unethical practices that must not be engaged in. These ethics were combined with the "Basic Procurement Policy" to become the "Procurement Code of Conduct".

We are working to ensure comprehensive awareness of compliance issues through workplace-based classes, which are held on a regular basis.





## Regional exchanges

### Think Eco Hiratsuka

Unfortunately, the event was cancelled in FY2021 in consideration of preventing the spread of COVID-19, but we posted information on the activities on the fence around the perimeter of the plant for the local residents who look forward to this event to look back on the past activities and move on to the next. We also set up a special website on our official website to disseminate information about our ECO activities both inside and outside the company.

### Results of a questionnaire survey about our local communication events

In consideration of preventing the spread of COVID-19, we have cancelled the regional communication meeting.

### List of FY2021 Regional Contributions / Community Activities

#### Hiratsuka Factory History Tour

We have decided to cancel the Hiratsuka Factory history tour in consideration of preventing the spread of COVID-19.

#### Volunteer activities

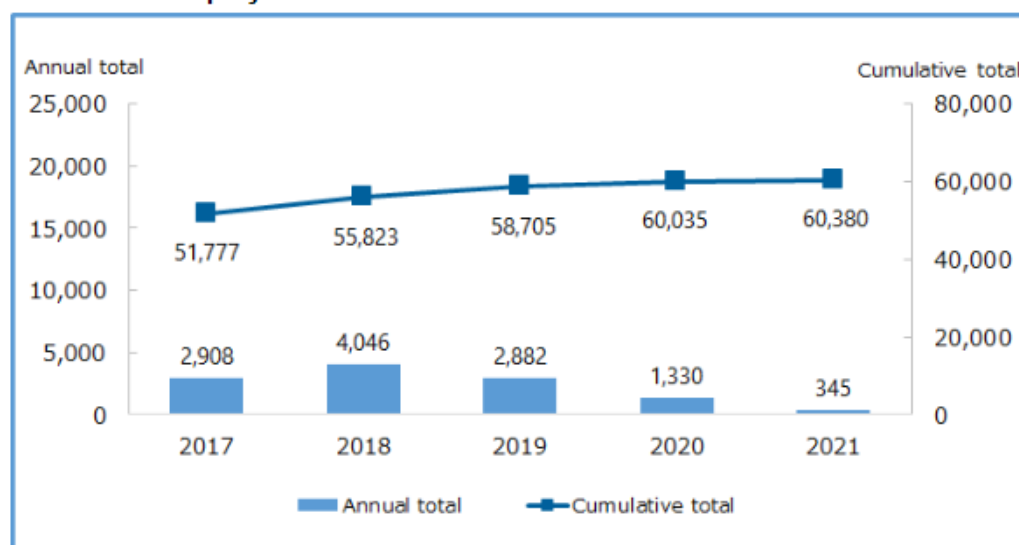
In consideration of preventing the spread of COVID-19, various volunteer activities have been cancelled or refrained from.

### Provision of Yokohama Forever Forest seedlings (Total: 1,693 seedlings)

April and September 2021: 345 seedlings for social welfare corporations

April 2022: 1,348 seedlings for social welfare corporations

**Number of seedlings provided by the Hiratsuka Factory for the Yokohama Forever Forest project**



## **Support for education**

We support Hiratsuka School for the Deaf and Hiratsuka School for the Blind as a member of their school management council.

## **Local event support, donations, and participation**

We refrained from activities due to COVID-19.

# Mie Plant (MP)

**Business activities**

Production of tires for trucks and buses, passenger cars

**Total site area**

264,000 m<sup>2</sup>

**Number of employees**

1,279 (as of December 2021)

**Location**

1038 Takabuku, Misono-cho, Ise City, Mie 516-8530, JAPAN

**Contact for consultation and complaints**

Operation Section

Tel: +81-596-28-3151 Fax: +81-596-28-3156

E-mail: katsuharu.omi@y-yokohama.com



## Message from the General Manager



Mitsugi Dairaku

Yokohama Rubber has established “Deal fairly with society and value harmony with the environment” as its basic environmental policy, and it aims to be “a company having world-class strengths in technologies for protecting the environment.” Our Mie Plant is located in Ise City: the divine capital located along the Miya River, Japan’s purest river. In doing business in this region, we have a strong desire to protect this abundance of nature and to continue to develop together with the community.

Since our plant’s acquisition of ISO 14001 certification in 1998, we have addressed environmental preservation through the full participation of our employees, such activities being centered upon our environmental management systems. Concerning preservation of the environment, we have conducted ongoing improvements due to the establishment each year of objectives for reducing environmental burdens. Special activities that we can be particularly proud of include the operational improvements and reductions with respect to resource usage amounts achieved by the “Waste Elimination Force,” a group mainly comprised of female employees, and the efforts of the “Frontline Support Team,” who have helped to transform support so that we can view manufacturing sites through the eyes of the customer. Furthermore, through the activities of the “Forever Forest Project” and we have also concluded a new “Kigyo no Mori (the forests created by companies)” initiatives with Watarai Town, Watarai District, Mie Prefecture from fiscal 2021. We have been creating

forests and ensuring the conservation of water sources, such factors being valuable in the reduction of CO<sub>2</sub>, disaster-prevention and the protection of living creatures. The total number of trees planted thus far reached 30,565 with the 14th planting of seedlings in fiscal 2020.

For the biodiversity conservation activities that we have been conducting since 2012, each team implemented a scaled-down version of the activities while taking measures against infection with COVID-19. Each team continued to enjoy their own activities while also preparing their own illustrated books of organisms and plants that they created.

In January 2016, we signed an agreement between Yokohama Rubber Mie Plant and Ise City regarding environmental education and have been working on it.

The tripartite collaboration of the Mie Plant's plant tour, tree-planting experience, biodiversity conservation activities, and Mie Kotsu's "Electric Bus Ride Experience and Lecture on Building a Low-Carbon Society" for five elementary schools in Ise City was abandoned due to COVID-19.

In addition, the Mie Plant employees' volunteer activities to support the reconstruction of Onagawa Town, Oshika District, Miyagi Prefecture, which started immediately after the Great East Japan Earthquake, have come to a standstill due to COVID-19.

Furthermore, the activities of local volunteers, along with those of the municipal government and residents' associations, are at a standstill.

These activities will be resumed while checking on the status of COVID-19. We will continue our efforts to be a plant that is loved and trusted by people in the region.

## Organizational Governance

### Thorough compliance policies

All Mie Plant employees are issued with "compliance cards" and are familiarized with the Yokohama Rubber Group compliance guidelines, and with the availability of contact points for discussing compliance-related issues. The Compliance Committee meets once a month and also conducts position-based education.

### Organizational self-corrective functions

We established a suggestions box in the plant's cafeteria, enabling us to receive feedback from employees. In addition, as we continue to operate the employees' web-based consultation service, which was established independently by the Mie Branch of the labor union, we carefully handle the opinions and requests we receive and continue to work with the Mie Branch of the labor union to make the service useful for the sound management of the organization.

## Human Rights

### Education on respect for human rights

We distribute "compliance cards" to employees to provide education on the importance of respect of human rights.

## Labor Practices

### The basics of safety and health

The Mie Plant obtained Occupational Safety and Health Management System (OSHMS) certification in accordance with Japan Industrial Safety & Health Association (JISHA) standards in 2006. This system is based on risk reduction and improvement activities in pursuit of intrinsic safety of equipment, as well as the creation of safe human resources with an emphasis on communication.

With respect to the safety and health policy of the plant, the basis of operation is as follows. "The basis of our corporate activities is to ensure the safety and health of our workers", and "To prevent occupational accidents and realize workplaces where employees can work comfortably in good physical and mental health, we will prioritize the safety and health of each and every employee by appropriately and effectively implementing and operating the occupational health and safety management system together with our employees".

## **Creating safe equipment**

Using risk assessment methods, we are promoting the identification, evaluation and improvement of potential danger sources; we are also implementing measures that include the isolation of sources for danger from work areas and promoting the creation of people-friendly facilities.

## **Safety awareness**

We pursue safety as a top priority under all circumstances. Specifically, we have shifted from collective guidance to individual guidance, and we conduct one-on-one safety education, dedicated safety time activities, and reviews of work procedures in open work observation.

In addition, we view successor development as a priority issue, and we are working to improve skills through various types of training.

We conduct activities suitable for the mind of each and every individual through thorough decluttering and organizing and the revitalization of communication.

## **Creating energetic workplaces**

We give a variety of different awards even for small achievements. We do this irrespective of what job titles recipients hold. Numerous improvement suggestions from the factory floors have been successfully developed into safety enhancement measures by encouraging people to challenge themselves, rather than fear failure.

To prevent COVID-19 infection, we are reviewing work styles by requiring each employee to take a temperature and wear a mask, installing disinfectant, conducting remote meetings to ensure social distance, and staggering cafeteria seating and break times.

In addition, as a measure to ensure "safety and security" for all employees of the Mie Plant, employees of partner companies, and their families, we vaccinated 867 employees in the workplace with the Corona vaccine and, in response to a request from the government for support, vaccinated 133 citizens who wanted to be vaccinated as a contribution to the local community.

One of the health promotion measures that we have implemented is the Quit Smoking Challenge. Starting in 2016 with a baseline level of 49.7% of employees being smokers, we have taken a series of steps since then.

We have set up a non-smoking day for three mornings in a month, and for those who wish to quit smoking, we have recommended a non-smoking clinic and received a refund of medical bills. We have also planned a six-month smoking cessation program to reduce the smoking rate to 43.3%. In 2022, we plan to continue the activities, extend the time of the non-smoking day, and make people aware of the harmful effects of smoking in order to reduce the smoking rate.

## **Employment of people with disabilities**

Concerning the employment of people with disabilities, as part of our efforts to strengthen links with special needs schools in the area, we have accepted 3 internships in 2020, which led to the hiring of 1 person.

# The Environment

## Environmental management

### Environmental Policy

Our goal is to embody consideration towards the global environment according to the norm of "Deal fairly with society and value harmony with the environment," which is declared in the management policy of the company.

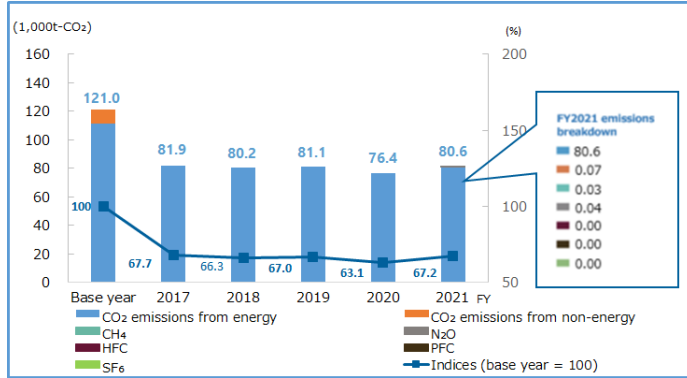
1. The Mie Plant, under the direction of senior management, works on measures taking the environment into consideration in all areas of our business.
2. The Mie Plant works to deepen channels of communication with its stakeholders; it also promotes cooperation with the value chain and contributes to both the local community and society.
3. In order to remain trusted by the community, we appropriately implement our environmental management system and continue our efforts to prevent environmental pollution and improve the environment. In addition, we will continue to reduce our environmental impact through chemical substance management, aiming for zero environmental risk.  
We observe applicable laws, regulations and agreements.
4. We strive to achieve carbon neutrality by promoting decarbonization measures such as greenhouse gas emission reduction, energy conservation activities, and waste reduction. We also promote the effective use of resources to realize a recycling-oriented society.
5. To maintain biodiversity, we strive to protect and revitalize the indispensable nature of the local ecosystem and the Miya River which runs into Ise Bay, and we also participate actively in community environmental activities.
6. Aiming to maintain the trust of the local community by fostering harmony with the natural wonders of the divine capital of Ise, all of us working at the Mie Plant implement education and awareness raising.
7. We shall value information from residents when carrying out regular plant improvements.
8. To fully realize our environmental policy, we formulate environmental objectives and targets and draw up and implement environmental plans.
9. This Environmental Policy shall be made public.

January 1, 2022  
Mitsugi Dairaku,  
General Manager,  
Mie Plant, The Yokohama Rubber Co., Ltd.

## Environmental data

### Reductions in greenhouse gas emissions

#### Greenhouse gas emissions



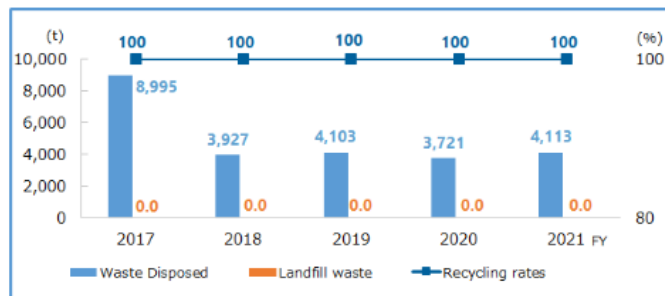
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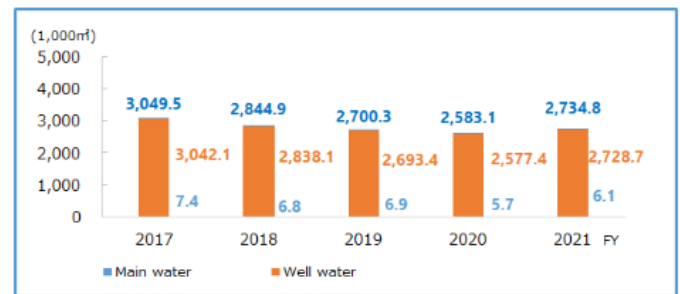
Note that GHG emissions associated with purchased power were calculated using the Table of Emission Coefficients by Power Company (Ministry of the Environment).

### Effective use of resources / Reduction of waste

#### Waste output



#### Water usage



## Measures for discharge into water, air and soil

### Data related to water contamination

Drain	Item	Regulatory values	Voluntary standard values	FY2021 results		
				Average	Maximum	Minimum
Mie Plant Drain 1	pH	6.0~8.0	6.5~7.8	7.1	7.2	7.0
	BOD concentration (mg/l)	20	5	1.2	2.1	0.5
	COD concentration (mg/l)	20	5	1.7	3	0.8
	SS concentration (mg/l)	40	5	1.3	2.0	1
	Oil concentration (mg/l)	2	1.6	0.5	0.7	0.5
Mie Plant Drain 2	pH	6.0~8.0	6.5~7.8	7.3	7.4	7.2
	BOD concentration (mg/l)	20	5	0.8	2.9	0.5
	COD concentration (mg/l)	20	5	1.2	1.4	1.0
	SS concentration (mg/l)	40	5	1	1	1
	Oil concentration (mg/l)	2	1.6	0.5	0.7	0.5

※In accordance with the Environmental Pollution Prevention Agreement concluded with Ise City.

※Discharge point: Hinokijiri River

### Air Pollutants (NOx, SOx)

Substance	NOx	SOx
Amount of emission (t/year)	49	—



Facility	Substance	Regulatory values	Voluntary standard values	FY2021 results		
				Average	Maximum	Minimum
Mie Plant Cogeneration 1	SOx emissions (m <sup>3</sup> N/h)	3.4	1	0.40	0.46	0.34
	NOx (ppm)	100	90	21.0	27.0	17.0
	Soot and dust (g/m <sup>3</sup> N)	0.05	0.01	0.0010	0.0020	0.0010
Mie Plant Cogeneration 2	SOx emissions (m <sup>3</sup> N/h)	3.4	1	0.400	0.45	0.34
	NOx (ppm)	100	90	11.0	16.0	9.0
	Soot and dust (g/m <sup>3</sup> N)	0.05	0.01	0.001	0.003	0.001
Mie Plant Boiler 3	SOx emissions (m <sup>3</sup> N/h)	1.0	1	0.030	0.030	0.020
	NOx (ppm)	130	120	61	73	48
	Soot and dust (g/m <sup>3</sup> N)	0.1	0.01	0.005	0.005	0.005
Mie Plant Boiler 4	SOx emissions (m <sup>3</sup> N/h)	1.5	1	0.030	0.040	0.020
	NOx (ppm)	130	120	54	58	50
	Soot and dust (g/m <sup>3</sup> N)	0.1	0.01	0.005	0.010	0.010

※In accordance with both the Air Pollution Control Act and the Environmental Protection Agreement concluded with Ise City.

## Reporting on chemical substance management status

The Mie Plant verifies whether all materials handled at the plant (raw materials, secondary materials, and auxiliary materials) contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed. Regarding the handling of substances pursuant to the PRTR Law, please refer to

➤ [the Safety Evaluation Table of Domestic Production Bases.](#)

In addition, to enhance the overall level of chemical substance management, we conduct compliance verification by implementing chemical substance assessment that covers risk of adverse impact on employee health, risk of explosion or fire in relation to equipment and machinery, and environmental risk.

## Efforts for Biodiversity Conservation Activities

At the Ominato Coast, one of our biodiversity activity bases, our employees gave an annual class for 4th graders of Minato Elementary School. The class included a talk on the creatures of the Ominato Coast, removal of non-native species of Japanese knotweed, and beach cleanup.

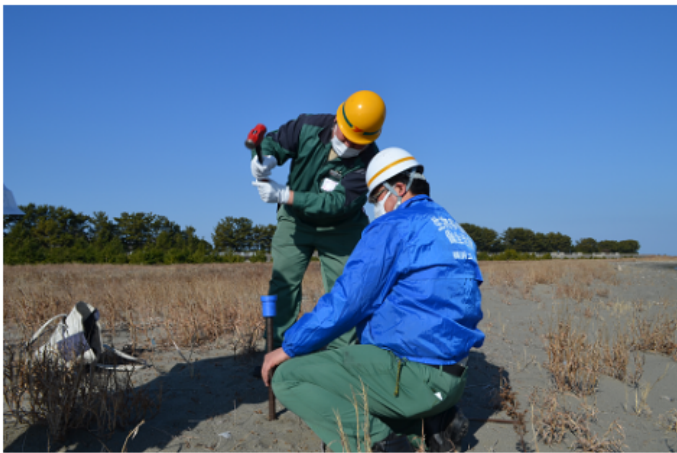


Rooting contest



Group photo of the delivery class

Due to COVID-19, the annual tree-planting experience and biodiversity conservation activity experience could not be held, but preparations are underway to hold these events in FY2022. We are also making preparations to hold the semi-annual activity report meeting.



Monitoring (sandy soil survey)



Sea turtle hatching survey (September)

## **Noise, vibration and odor**

### **Noise**

Noise management is implemented at the boundary of the premises of the plant (18 points) and autonomous measurement is conducted once a month.

### **Vibration**

Vibration management is implemented at the boundary of the premises of the plant (14 points) and autonomous measurement is conducted once a month.

### **Odor**

Odors are managed by autonomous measurements conducted twice a year at the boundary of the plant's premises. Our response involves the installation of deodorizing vaporizers in building ducting.

## **Comments and information from local residents from the past and our response**

We have installed the second phase of anti-scattering nets at the site boundary to prevent leaves from trees on the plant site from being blown into neighboring residences by the wind.

We also disinfect trees in the spring and fall to prevent insects from flying into neighboring houses every year.

## **Fair Operating Practices**

### **Certification of new business partners**

Guidelines are established on compliance with human rights, legal compliance, and safety and environmental activities, etc. when business is to be commenced with a new business partner. Based on such points, the approval processes for the appointment of a new procurement partner are undertaken, and interviews are conducted while various materials are referred to. It is through this process that business partners are selected.

### **Communication with business partners**

Implementation was postponed due to COVID-19.

The CSR Study Meeting was held via the web.

## **Consumer Issues**

### **Safety and quality of our products and services**

Using as a pillar the principle of “creating quality through the eyes of the customer,” at the Mie Plant we promote the continuous improvement of products and services by leveraging the quality management system ISO/TS 16949 (moved to ISO 9001 and IATF 16949 from June 2018) as our operational basis. We regularly confirm the effectiveness of this system through internal systems audits and external reviews that are conducted every six months.

In addition, by using “Quality Maintenance Activities” to ensure effective self-directed quality management throughout the entire production process, etc., we position quality as customer safety while working to ensure that all employees are conscious of the “eyes of the customer” being on them.

With respect to products, we are actively working to further reduce our environmental impact by increasing the production ratio of tires with reduced rolling resistance, improved wear life, superior rehabilitation, and ultra-wide base tires.

## **Community Involvement and Development**

### **Relationship with local societies**

#### **Regional exchanges**

We were planning to hold the event, but it was cancelled due to COVID-19.

#### **Social contribution activities**

Due to COVID-19, we had to cancel all events, but only made donations to the Ise City Council of Social Welfare, which we have done every year.

Due to COVID-19, we were also unable to hold blood drives three times a year in FY2021, but held two blood drives in May and October, with 85 people donating blood.

#### **Regional volunteers**

July 4: The 26th Tanabata Festival Cleanup on the Setagawa River (5 people participated)

#### **Opening of facilities**

We have lent our grounds for use by a regional soccer club (ISE YAMATO).

#### **Environmental activities**

April 7 : 14th-1 Tree Planting

May 10 : 14th-2 Tree Planting

May 31 : Ominato Coastal Cleanup



Coastal cleanup in May

## **Plant tour and workshop**

In FY2021, due to COVID-19, elementary schools, companies, and groups in the neighborhood refrained from visiting the plant, and there were no visitors.

Please contact us below if you would like to participate in a plant tour and workshop.

Holding Day: Monday to Friday (Except for year end and New Year holidays, consecutive holidays in May and August)

Hours: 8:00 a.m. to 5:00 p.m.

Contact: Sugihara, Operation Section, General Affairs

Tel: +81-596-28-3151

# Mishima Plant (SP)

## Business activities

Production of tires for passenger cars, race cars and light trucks

## Total site area

112,000 m<sup>2</sup>

## Number of employees

972 (December 2021)

## Location

8-1 Minami-Futsuka-machi, Mishima City, Shizuoka 411-0832, JAPAN

## Contact for consultation and complaints

Mishima Plant Operation Division

Tel: +81-55-975-0800

Fax: +81-55-976-4322



## Message from the General Manager



Toshinari Matsumoto

The Mishima Plant is located in Mishima City in the North Izu area of Izu Peninsula UNESCO Global Geopark in eastern Shizuoka Prefecture. Mt. Fuji, a World Heritage site, can be seen to the north from the plant, and the area is blessed with magnificent scenery and bountiful blessings. The plant mainly manufactures tires for passenger cars and light trucks. We are also the only company in the Yokohama Rubber Group that manufactures racing tires for motorsports.

The plant is surrounded by clear water that is part of the natural abundance of Mt. Fuji and the Izu Geopark, and thanks to the tree planting of the Yokohama Forever Forest Project that the Yokohama Group has been engaged in since 2007, it has been possible to see fireflies in the early summer in the tree planting areas in front of the plant in recent years. Meanwhile, residential areas have been developed in the area surrounding the plant as a result of the convenience of the proximity to the Mishima-

Futsukamachi Station on the Izu Hakone Railway, which means that in addition to control and management of exhaust, drainage, and sound, response to sensory issues such as odors is required, and these are being steadily addressed.

While Yokohama Rubber is aiming to contribute as a member of the global community, the plant is aiming to contribute as a member of the local community.

We would like to foster the abundant natural wealth of the region through participation in clean-up activities around the plant and the Rakujuen section of the Izu Geopark that are currently underway as well as environmental conservation and observation through environmental conservation near the IzuJukan Expressway/Tamazawa IC and biodiversity activities at the Goten River that flows along the west side of the plant.

In FY2021, learning from FY2020, we are continuing the infection prevention measures of COVID-19, promoting work at home, avoiding the 3 secret measures and thoroughly enforcing the basics of gargling, washing hands and wearing masks.

In the future as well, we will work hard to build trusting relationships with all stakeholders in an aim to be a plant that is loved by the region.

## **Organizational Governance**

### **Corporate Governance and Compliance**

The Mishima Plant has also developed its activities in line with Yokohama Rubber's important task of becoming "a company that contributes to the earth, earning the unwavering trust of society. In addition, as a priority issue of reducing environmental risks and contributing to the local community while strengthening the environmental management system, we are deepening communication with stakeholders, preventing environmental pollution and sensory pollution, regularly reviewing past environmental troubles and near misses, and continuously promoting environmental improvement through proactive management.

### **Corruption prevention**

In working to give employees a thorough understanding of our compliance policies as such relate to the prevention of quality fraud, education in compliance issues has been conducted for the entire workforce.

## **Human Rights**

### **Education on respect for human rights**

We distributed "compliance cards" to all employees so as to enlighten and educate them about human rights. We offer employment irrespective of gender, age or disability.

### **Promotion of employment of people with disabilities and workforce diversity**

Currently, we have 12 employees with disabilities.

As of December 2021, of a total of 682 employees at the plant, 36 are women, and 39 are elderly individuals (persons aged 60 or over).

## **Labor Practices**

### **Occupational safety and health**

Recognizing that securing the safety and health of our employees and employees of partner companies are the foundations of corporate activities, the plant acquired OSHMS (Occupational Safety and Health Management System) certification in November 2010 as a means to realize a safe, healthy and comfortable workplace. We promote safety and health activities by identifying risks through risk assessment activities and reducing risks through countermeasures and improvements, based on 3S activities and KY before work with the participation of all employees.

## Employee diversity

In 2021, Zero employees took nursing care leave and 33 employees took parental leave.

## Work-life balance

The second and fourth Fridays of even month are designated as "Happy Family Life Days," and employees are encouraged not to work overtime on these days.

## Human resources cultivation and training in the workplace

To enhance the knowledge and skills required of employees, we implement level-based training that is conducted according to years of experience and position. We have made a plan to provide the right training at the right time. In 2021, despite the impact of COVID-19 infection spread prevention measures, we continued to implement thorough infection prevention measures and conducted group training for 26 employees and Mishima Plant's own role-based training for 10 employees, for a total of 36 employees.

# The Environment

## Environmental management

In line with our principle of "Deal fairly with society and value harmony with the environment", we declared an environmental policy, adopting the environmental management system of ISO 14001. In order to reduce the environmental burden, we established reducing industrial waste and reducing greenhouse gas emissions as major tasks and actively strive to improve our production process and eliminate energy waste. As regards other measures, we established autonomous management targets to respond to legal regulations and operate within the autonomous management targets. In response to sensory pollution such as noise, odor, and vibration, three deodorizers are in operation and spraying 24 hours a day during operation as odor countermeasures. We have received cooperation from 28 residents (as of December 2021) living in the four towns surrounding the plant as environmental monitors, and have visited them once a month to report on the situation at their homes and conduct interviews, leading to improvements. However, in order to prevent the spread of COVID-19, we refrained from visiting them in person. Instead, we refrained from visiting them directly. Instead, we distributed direct mail and CSR reports, and responded to inquiries by phone. As part of our efforts to contribute to the regional environment, we have planted 29,616 trees (as of December 2021) in the YOKOHAMA Forever Forest Project, which is also a company-wide activity, as well as in a tree-planting event at Otsuchi Gakuen in Otsuchi Town, Iwate Prefecture, and in the "Forest of Hope" seawall in Kakegawa City. However, due to the measures taken to prevent the expansion of COVID-19, we have decided to cancel these activities in FY2021. A small group of us conducted a tree-planting activity at the Tamazawa Interchange ramp on the Izu-Longitudinal Highway under the jurisdiction of the Ministry of Land, Infrastructure, Transport and Tourism.



After tree-growing activities at the Tamazawa Interchange Ramp on the Izu Longitudinal Highway under the jurisdiction of the Ministry of Land, Infrastructure, Transport and Tourism



\*The event was cancelled due to the prevention of COVID-19 expansion. (The following four photos were taken in fiscal 2019.)  
Construction of a seawall in Otsuchi-cho, Iwate Prefecture





Otsuchi Gakuen Tree Planting Association



Kakegawa City's "Forest of Hope" seawall



Kakegawa City's "Forest of Hope" seawall

Concerning the protection of biodiversity, we have conducted team surveys of the upper, middle and lower reaches of the Goten River (in our neighborhood). Those activities have involved measurements of water quality, ecological observations being undertaken.

We have observed a wide variety of living creatures live in the river, including dragonfly nymphs (e.g. Calopteryx atrata, Macromia amphigena), fish (e.g. Opsariichthys platypus and Nipponocypris temminckii) , reptiles such as Soft-shelled turtle and Chinese pond turtle and the symbol birds of Mishima City, such as Kingfishers, which are rare in a factory surrounded by houses. On the other hand, there is a lot of garbage dumped in the river, and we have been cleaning the river after monitoring in order to contribute in some small way to keep the Goten River beautiful.

However, river vegetation was wiped out by river dredging at the end of 2016, and the diversity of the river disappeared. Therefore, in May 2019, the Numazu Civil Engineering Office of Shizuoka Prefecture, Mishima City, and the Mishima Plant signed a River Friendship agreement, and in 2020, we conducted activities with government participation twice a year to regenerate vegetation and create a comfortable environment for aquatic life in the Goten River.

In addition, as a result of cleaning up the agricultural waterway in front of the main gate of the plant, fireflies began to inhabit the river in 2012, and a firefly viewing party was held every year in May.

In 2019, we welcomed 281 visitors, but due to measures to prevent the spread of COVID-19 infection, we have decided to cancel the event in 2021. In the future, we intend to build on such biodiversity protection activities.



catfish (esp. the Amur catfish, Silurus auratus)



Soft-shelled turtle and Red-eared slider (at the outlet of the final factory drain)



River Friendship 1st Collaborative Activity

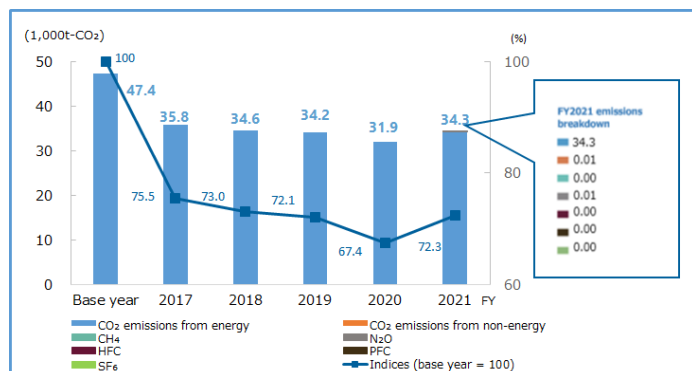


River Friendship 2nd Collaborative Activity

## Environmental data

### Reductions in greenhouse gas emissions

#### Greenhouse gas emissions



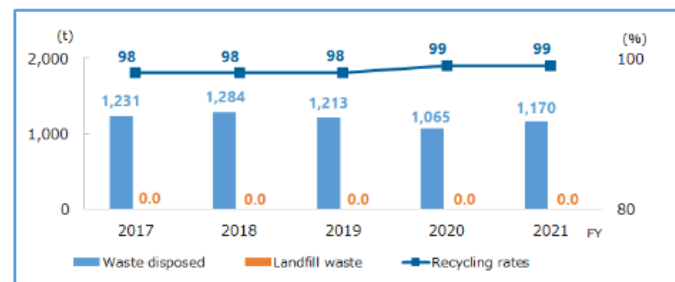
※The base year is deemed as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

※Method of calculation of greenhouse gases (GHG): this is in compliance with the "Calculation and Reporting Manual for Greenhouse Gas Emissions" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

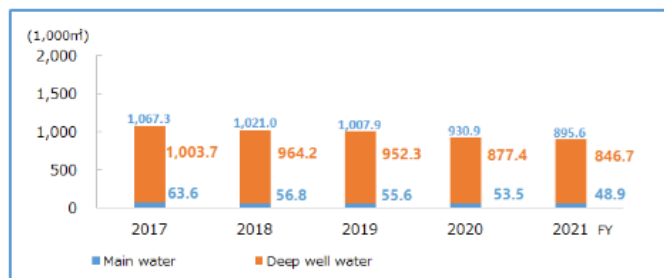
Note that GHG emissions associated with purchased electric power in FY2009 were calculated using the Table of Emission Coefficients by Power Company (Ministry of the Environment).

### Effective use of resources / Reduction of waste

#### Waste output



#### Water usage



The plant derives 90% of its total water usage from underground water. The remainder is from city waterworks.

## Measures for discharge into water, air and soil

### Data related to water contamination

The water used at the plant is discharged into the Goten River after being treated in the plant's treatment facilities.

Item	Regulatory values	Voluntary standard values	FY2021 results		
			Average	Maximum	Minimum
pH	※5.8~8.6	6.2~8.2	7.5	7.7	7.3
BOD concentration (mg/l)	15	4 or less	1.5	3.5	0.5 Less than
COD concentration (mg/l)	★120	5 or less	2.1	4.0	1.4
SS concentration (mg/l)	20	8 or less	1.0	2.0	1 Less than
Oil concentration (mg/l)	2	1 or less	1.0 Less than	1.0 Less than	1.0 Less than

※Agreement on Environmental Protection with Mishima City; Star marks are according to the Water Pollution Prevention Law. (regulatory value of BOD is the max. concentration)

※Discharge point: Goten River

### Air pollutants (NOx, SOx)

Substance	NOx	SOx
Amount of emission (t/year)	20	—

Facility	Substance	Regulatory values	Voluntary standard values	FY2020 results		
				Average	Maximum	Minimum
Mishima Plant Cogeneration	NOx*1(ppm) Soot and dust (g/m <sup>3</sup> N)	100 0.05	80 0.01	57 Less than 0.001	63 Less than 0.001	53 Less than 0.001
Mishima Plant Boiler	NOx*2(ppm) Soot and dust (g/m <sup>3</sup> N)	130 0.1	65 0.02	18 Less than 0.005	26 Less than 0.005	10 Less than 0.005

※According to the Air Pollution Prevention Law and recommended values set by Mishima City.

※1 Data are expressed based on a 16% oxygen content conversion value.

※2 Data are expressed based on a 5% oxygen content conversion value.

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Mishima Plant verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

› [the Safety Evaluation Table of Domestic Production Bases.](#)

## Fair Operating Practices

### Relationship with business partners

In 2021, due to measures to prevent the spread of COVID-19 infection, we did not hold a CSR study session with suppliers, but asked suppliers to conduct a self-diagnosis using the CSR self-check sheet.

Date: November 19 to December 17, 2021

Target: All companies (1,223 companies) that had placed orders in 2020

Seminar contents:

- Respect for human rights and prohibition of discrimination
- Safe and secure working environment
- Environmental protection and maintenance of biodiversity
- Safe and high quality products and services
- Transparent corporate activities and appropriate information disclosure
- Compliance with laws, regulations, and social norms
- Contribution to local communities
- CSR in the supply chain

Based on the results of the self-assessment, we asked each company. We asked each company to apply the results of the self-assessment to their future activities.

## Consumer Issues

### Communication with customers

To customers who tour the plant, we introduce our acquisition of the Automotive Industry Quality Management System Standard ISO/TS 16949.

Furthermore, in response to inquiries received from customers to whom we have delivered products, we make reports to them based on our quick investigation of the relevant matters.

# Community Involvement and Development

## Responses to comments and complaints received

We have held plant visits for local residents and environmental monitors twice a year (spring and fall), and explained our environmental initiatives to them. In fiscal 2021, we distributed a CSR report to prevent the expansion of COVID-19. At the Mishima Plant, the Environmental Management Office, as the contact window for regional communication, exchanges views with regional monitors, and in FY2021, we asked for their views 367 times (including 49 dialogues), although we refrained from direct visits. Most of them were related to noise and odor.

Thanks to effective explanations of the Mishima Plant's environmental measures and a willingness to listen to local residents' views, in 2021 there were no complaints from local residents.



Resident Consultation Meetings with local residents

\*The event has been cancelled to prevent the expansion of COVID-19 (Photos were from FY2019)



Sweet potato digging

## Relationship with local societies

- We used to participate in the annual cleanup service work at Rakujiyuen, a public park in Mishima City organized by the Mishima District Environmental Preservation Promotion Council, but it was cancelled in FY2020 to prevent the spread of COVID-19.
- In FY2021, the use of gymnasiums and the premises of dormitories for single employees located within the business sites was also banned from last year as a measure to prevent the spread of COVID-19 infection. In 2021, 0 gymnasiums and 0 bachelor dormitory grounds have been leased to local residents.
- Clean-up activities are implemented in the vicinity of the plant once a week (the area involved extends from the plant's main gate to the vicinity of Mishima-Futsukamachi Station, and from the main gate to the vicinity of the employee parking lots).
- Blood donations cooperation is held twice a year at the plant, and employees as well as people related to partner companies donate blood; however, in fiscal 2021, we suspended this activity to prevent the spread of COVID-19.
- As a business that cooperates with the fire brigade, seven of our employees are registered with the Mishima City Fire Brigade as special function members. These employees continued to be available to respond to fires in the community.

## Plant tours and workshops

In FY2021, we accepted four plant tours, with a total of 35 visitors (down 101 from the previous year) touring the Mishima Plant. After April 2020, the number of visitors dropped to zero due to measures to prevent the spread of COVID-19 infection, but since May 2021, we have resumed plant tours, accepting only those who reside in Shizuoka Prefecture.

## **Plant Tour Information**

When: Plant tours are offered on days on which the plant is in operation (Mondays to Fridays).

Excludes year-end and New Year holidays and the consecutive holiday periods in May and August.

Hours: 8:00 a.m. to 4:00 p.m.

Contact: Mishima Plant, Operation Section Tel: +81-55-975-0800

# Shinshiro Plant (TP)

## Shinshiro Plant

### Business activities

Production of tires for passenger cars

### Total site area

223,879 m<sup>2</sup>

### Number of employees

842 (as of December 2021)

### Location

1 Furuyashiki, Noda-Aza, Shinshiro City, Aichi 441-1343, JAPAN

### Contact for consultation and complaints

General Affairs Division Tel: +81-536-22-2251 Fax: +81-536-23-0353



Shinshiro Plant

## Shinshiro-Minami Plant

### Business activities

Production of tires for passenger cars

### Total site area

110,998 m<sup>2</sup>

### Number of employees

366 (as of December 2021)

### Location

10-24 Oiri, Hitokuwada-Aza, Shinshiro City, Aichi 441-1338, JAPAN

### Contact for consultation and complaints

General Affairs Division Tel: +81-536-22-2251 Fax: +81-536-23-0353



Shinshiro-Minami Plant

## Message from the General Manager

The Shinshiro Plant is located in Shinshiro City, the gateway to the nature-rich Okumikawa region. The plant manufactures passenger car tires, including the BluEarth fuel-efficient tire, an environmentally friendly product, the ADVAN flagship tire,



Ken Hayami

the GEOLANDAR SUV tire, and the iceGUARD studless tire, all of which are Yokohama Rubber's flagship tires.

In 1999, we obtained ISO14001 certification, and strive to always operate our plants in consideration of the environment of both the plants and the local community, aiming for the "top level of environmental contribution" as a core plant of Yokohama Rubber. In cooperation with the local community, we have concluded an environmental preservation agreement with Shinshiro City and operate our plants in consideration of the living environment by conducting water quality inspections of plant effluent and noise measurements in the vicinity of our plants.

In the Forever Forest activities, we have completed the tree-planting activities in and around the plant premises, and have now expanded the activities to include governments, NPOs, and other companies not only in Aichi Prefecture but also in Shizuoka and Gifu Prefectures, participating in a total of 55 events in FY2021 and providing a total of approximately 13,000 seedlings.

Since the start of tree-planting activities in 2009, the total number of seedlings planted in our plants and provided to local communities has reached about 268,000.

The plant uses a large amount of water resources in the region in the process of producing tires. The employees ask themselves, "we have received a gift from nature but what can we do for the environment?" We have continued to conduct biodiversity surveys at the water source of the Toyokawa River system as well as conducting water quality surveys at the plant's drainage outlets.

We have also created biotopes on the factory grounds and in the fallow fields of Yotsuya Senmaida, and have been actively engaged in activities to conserve endangered species in Aichi Prefecture.

In FY2022, we plan to continue our biodiversity preservation activities and continue to protect the rich nature, water resources, and organisms that live there.

Unfortunately, we were not able to invite everyone from the local community to the plant in 2020 due to the new coronavirus countermeasures, but we will continue our efforts to operate the plant in a way that is rooted in the local community.

## Organizational Governance

### Compliance education

We conduct compliance education for new employees and regular employees who join the company mid-term to raise their awareness of legal compliance, and for managers and supervisors, we educate them on how to treat their subordinates and how to lead them to comply with laws and regulations.

We also hold CSR study meetings with our business partners to reaffirm our social contribution activities and compliance with laws and regulations, thereby strengthening relationships of trust.



# Human Rights

## Promotion of employment of people with disabilities

As of the end of December 2021, 27 people (2.82% of the workforce) were employed. We will continue to expand employment of people with disabilities and enhance the workplace environment.



Special education classroom: Work experience  
\*The plan was cancelled after FY2020.

# Labor Practices

## Safety and health measures

Based on the recognition that ensuring the safety and health of employees and subcontractors is the foundation of our corporate activities, we obtained certification for OSHMS (Occupational Safety and Health Management System) conforming to the JISHA (Japan Industrial Safety and Health Association) method in December 2011 as a means of achieving a safe, healthy, and comfortable workplace. Since then, we have continued the certification.

We have been developing the following activities based on the four pillars (one-to-one dialogue, near-misses, hazard prediction, and risk assessment), which are centered on interactive communication between the work system and workers.

- Sharing of issues through the Health and Safety Committee (once a month)
- Environmental and safety subcommittee meetings for subcontractors, safety patrols by subcontractors and the facilities section, labor-management council meetings, and meetings of safety managers (once a month for each).
- Regular safety follow-up by factory top management
- Strengthen management of overwork
- Preventing accidents that have occurred in the past from fading out

## Education and training for employees

Safety education for employees begins with safety and health education at the time of employment, followed by one-on-one dialogues with employees by role holders, sensory training, risk assessment practical training sessions, and safety person certification and development training.



New employee hands-on safety drills

## Responses in case of disaster

In response to disasters, regular disaster drills are conducted in accordance with the annual activity plan for fire and disaster prevention. During drills, a self-defense firefighting organization headquarters is set up and firefighting and rescue drills are conducted to ensure a comprehensive response. We also engage in earthquake disaster drills, BCP drills, and nighttime evacuation drills, assuming various patterns.



Disaster Drill at Shinshiro South Plant

# The Environment

## Environmental Policy of Shinshiro Plant, Yokohama Rubber Co., Ltd.

The Shinshiro Plant, as the core plant of Yokohama Rubber Co., Ltd., will be a pioneer, aiming to become “a company having world-class strengths in technologies for protecting the environment, embodying consideration towards the environment”.

1. By manufacturing products with heart and technology, we contribute to happiness and affluence and continue to practice “prevention of environmental pollution and sensory discomfort” and “improving the protection of the environment” by pre-emptive management, in an aim for zero environmental risks.
2. All departments and related companies constituting Shinshiro Plant shall build up and maintain a mechanism in accordance with the environmental management system established by themselves and improve environmentally friendly management under the leadership of top management.
3. We will deepen communications with all stakeholders that comply with the related laws, regulations, agreements and contracts, etc., and strive for regional contribution and social contribution.
4. We will contribute to the realization of a carbon neutral society by practicing energy-saving activities and promoting decarbonization measures such as the introduction of renewable energy. We will also contribute to the realization of a recycling-oriented society by promoting resource conservation and recycling.
5. In order to realize this policy, we establish environmental objectives and targets, carry out the plan deliberately and securely promote them by visualization of the results. Also, the policy, objective and goal are subject to review on a quantitative basis, and revised as necessary.
6. We cherish natural lives in the Shinshiro region in the Toyo River water system with rich water and strive for protection of biodiversity.
7. In harmony and fusion with rich nature of Shinshiro-shi, “Yama-no minato” and through “Yokohama Forever Forest” activities, we aim at regional contributions and coexistence of humans and nature through planting activities and planting instruction and furnishing seedlings.
8. We will provide thorough education and enlightenment activities so that all workers at the Shinshiro Plant can understand the policy and act accordingly.
9. This Policy shall be published.

January 1, 2022  
Ken Hayami  
Plant General Manager,  
Yokohama Rubber Co., Ltd., Shinshiro Plant

# Reductions in greenhouse gas emissions

## 1. Active introduction of environmentally friendly high-efficiency products

In accordance with our mid- to long-term energy conservation plan, we are replacing transformers, fans, pumps, lighting fixtures, air conditioning equipment, and other equipment with high-efficiency equipment. In FY2021, we replaced one 750kVA high-voltage transformer with a top-runner transformer. In addition, approximately 130 Hf fluorescent lamps were replaced with LED base lights, and 23 floodlight-type incandescent lamps were replaced with LED floodlights. In addition, we are continuing to study fuel conversion and the introduction of power generators at the South Plant in order to drastically reduce GHG emissions. In particular, in FY2022, we will begin to consider the installation of solar power generators.

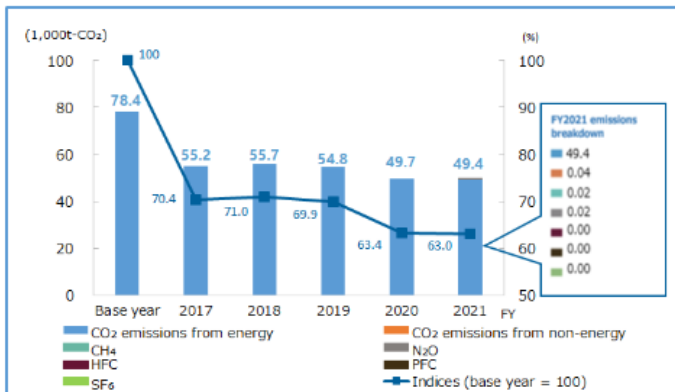
## 2. Advancement of energy-saving activities

In addition to improving efficiency on the supply side, we are repairing leaks of steam, industrial water, and plant air on the consumption side, augmenting heat insulation, and converting fans, pumps, and other equipment in production facilities to inverters. In FY2021, we converted three fan motors for cooling large electric motors (1500kW class) to inverters. In monthly meetings of energy conservation subcommittees where all process managers gather, we strive to share problems and introduce individual initiatives in an effort to educate the public.

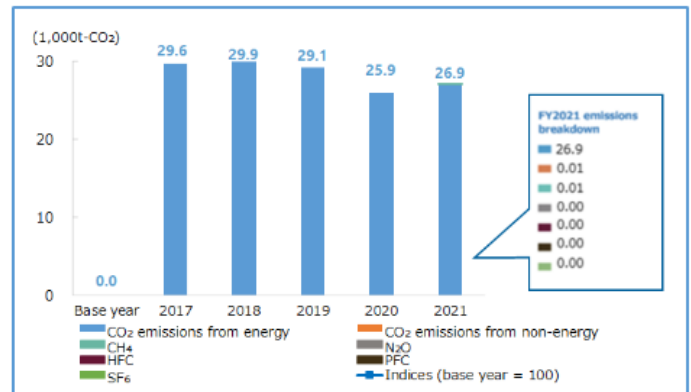
# Environmental data and explanations

## Reductions in greenhouse gas emissions

Shinshiro Plant



Shinshiro-Minami Plant



※The base year: In principal it is 1990. For HFC, PFC and SF<sub>6</sub>, the base year is 1995 according to the Kyoto Protocol.

※Method of calculation of greenhouse gases (GHG): this is in compliance with the "Calculation and Reporting Manual for Greenhouse Gas Emissions" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

Note that GHG emissions associated with purchased power were calculated using the Table of Emission Coefficients by Power Company (Ministry of the Environment)

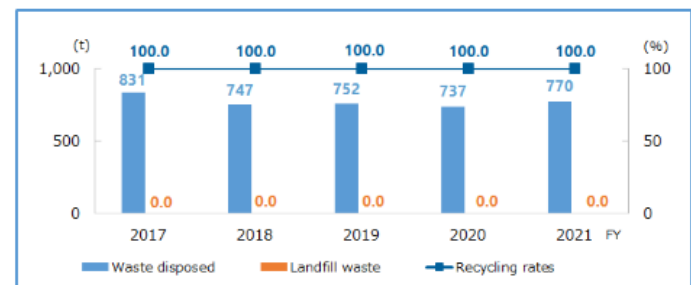
## Effective use of resources / Waste reductions

### Waste output

Shinshiro Plant

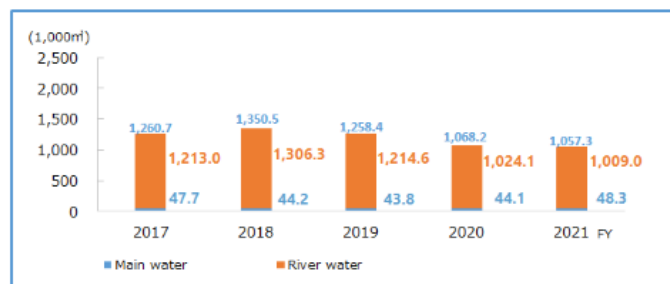


Shinshiro-Minami Plant



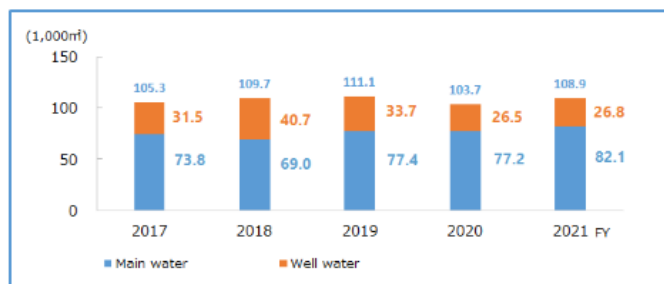
## Water usage

### Shinshiro Plant



Shinshiro Plant: uses main water and draws industrial water from the Toyo River and Noda River, a branch of the Toyo River.

### Shinshiro-Minami Plant



Shinshiro-Minami Plant: uses main water and draws industrial water from well water.

## Measures for discharge into water, air and soil

### Data related to water contamination

Shinshiro Plant: twice a month, monitors twenty items of water contamination within self-regulated targets set under the ordinances of and agreements with Aichi Prefecture and Shinshiro City.

Drain	Item	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Drain 1	pH	5.8~8.6	6.5~8.0	7.38	7.6	7.1
	BOD concentration (mg/l)	20	9.0 or less	2.03	4.3	0.6
	COD concentration (mg/l)	20	11.0 or less	2.20	3.8	1.3
	SS concentration (mg/l)	20	6.0 or less	2.06	5.0	1.0
	Plant and animal oil concentration (mg/l)	10	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	2	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
Drain 2	pH	5.8~8.6	6.5~8.0	7.52	7.7	6.9
	BOD concentration (mg/l)	20	9.0 or less	2.64	6.5	0.60
	COD concentration (mg/l)	20	11.0 or less	2.31	6.8	1.1
	SS concentration (mg/l)	20	6.0 or less	1.43	3.0	1.0
	Plant and animal oil concentration (mg/l)	10	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	2	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5

※In compliance with the Pollution Control Agreement, and Aichi Prefecture Ordinances.

※Shinshiro Plant Discharge point (Name of rivers) Noda River

Shinshiro-Minami Plant: once a month, monitors twenty items of water contamination within self-regulated targets set under the ordinances and agreements with Aichi Prefecture and Shinshiro City.

Drain	Item	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Drain 1	pH	5.8~8.6	6.5~8.0	7.38	7.9	7.1
	BOD concentration (mg/l)	20	12.0 or less	6.57	8.9	0.8
	COD concentration (mg/l)	20	11.0 or less	7.49	9.6	5.2
	SS concentration (mg/l)	20	6.0 or less	3.08	5.0	2.0
	Plant and animal oil concentration (mg/l)	10	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	2	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
Drain 2	pH	5.8~8.6	6.5~8.0	7.49	7.9	7.1
	BOD concentration (mg/l)	20	12.0 or less	5.85	8.2	3.4
	COD concentration (mg/l)	20	11.0 or less	5.88	9.2	2.6
	SS concentration (mg/l)	20	6.0 or less	1.92	3.0	1.0
	Plant and animal oil concentration (mg/l)	10	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	2	1.0 or less	Less than 0.5	Less than 0.5	Less than 0.5

※In accordance with the Pollution Control Agreement, and Aichi Prefecture Ordinances.

※Shinshiro-Minami Plant Discharge point (Name of rivers) Kuroda River

#### Air pollutants (NO<sub>x</sub>, SO<sub>x</sub>)

Substance	NO <sub>x</sub> emissions (t/year)	SO <sub>x</sub> emissions (t/year)
Shinshiro Plant	23	—
Shinshiro-Minami Plant	13	3

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Shinshiro Plant verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

➤ [the Safety Evaluation Table of Domestic Production Bases.](#)

In addition, as part of efforts to improve the level of chemical substance management, we conduct chemical substance risk assessments to identify risks of adverse effects on workers' health, explosions and ignition of facilities and equipment, and environmental risks, and confirm compliance with laws and regulations.

### Shinshiro Plant

Facility	Substance	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Boiler 1	SOx emissions (m <sup>3</sup> N/h)	Regulations in Article 3	0	Less than 0.001	Less than 0.001	Less than 0.001
	Nox (ppm)	130	0.030	68	72	64
	Soot and dusts (g/m <sup>3</sup> N)	0.1		Less than 0.002	Less than 0.002	Less than 0.001
Boiler 2	SOx emissions (m <sup>3</sup> N/h)	Regulations in Article 3	0	Less than 0.001	Less than 0.001	Less than 0.001
	Nox (ppm)	130	0.030	65	65	65
	Soot and dusts (g/m <sup>3</sup> N)	0.1		Less than 0.002	Less than 0.002	Less than 0.001
Cogeneration	SOx emissions (m <sup>3</sup> N/h)	Regulations in Article 3	22.63	Less than 0.13	Less than 0.14	Less than 0.11
	Nox (ppm)	100	0.030	52	64	43
	Soot and dusts (g/m <sup>3</sup> N)	0.05		Less than 0.001	Less than 0.001	Less than 0.001
Warm-water Boiler A	Nox (ppm)	150	120	36	38	34
	Soot and dusts (g/m <sup>3</sup> N)	0.1	0.030	Less than 0.001	Less than 0.001	Less than 0.001
Warm-water Boiler B	Nox (ppm)	150	120	35	36	33
	Soot and dusts (g/m <sup>3</sup> N)	0.1	0.030	Less than 0.001	Less than 0.001	Less than 0.001
Dipping machine	SOx emissions (m <sup>3</sup> N/h)	Regulations in Article 3	Regulations in Article 3	Removed		
Nox (ppm)	250	150				
Soot and dusts (g/m <sup>3</sup> N)	0.15	0.1				

※ In compliance with the Air Pollution Control Law, Aichi Prefecture Ordinances and the Shinshiro City Pollution Control Agreement.

## Shinshiro-Minami Plant

Facility	Substance	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
High-pressure Boiler 1	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	Removed		
High-pressure Boiler 2	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	Removed		
High-pressure Boiler 3	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.3	4.37 150 0.1	0.0013 75 0.003	0.0013 85 0.005	0.0013 65 0.001
High-pressure Boiler 4	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.3	4.3 150 0.1	0.02 73 0.006	0.01 76 0.009	Less than 0.001 70 0.003
High-pressure Boiler 5	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.3	4.33 150 0.1	0.007 68 0.011	0.013 73 0.017	Less than 0.001 63 0.004
High-pressure Boiler 6	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.25	0.85 150 0.1	Removed		
Low-pressure Boiler 1	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.25	4.08 150 0.1	Removed		
Low-pressure Boiler 2	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.25	4.07 150 0.1	Removed		
4t Boiler 1	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.3	2.24 150 0.1	0.007 73 0.001	0.013 100 0.001	Less than 0.001 46 0.001
4t Boiler 2	SOx emissions (m <sup>3</sup> N/h) Nox (ppm) Soot and dusts (g/m <sup>3</sup> N)	Regulations in Article 3 180 0.3	2.12 150 0.1	0.01 92.5 0.002	0.02 100 0.001	0.001 85 0.002

※In compliance with the Air Pollution Control Law, the Shinshiro City Pollution Control Agreement and the Environmental Preservation Agreement with Shinshiro City.



# Fair Operating Practices

## CSR activities with business partners

As part of our activities, we hold a CSR study meeting every year, but this year we decided to cancel the group briefing due to the COVID-19 infection situation. Instead, we distributed the CSR Self-Check Sheet to suppliers and asked them to conduct a self-assessment of their initiatives. The information was sent to 126 companies.

### > Self-Audit Response Request

- Respect for human rights and prohibition of discrimination
- Environmental protection and maintenance of biodiversity
- Safe and high quality products and services
- Transparent corporate activities and appropriate information disclosure
- Compliance with laws, regulations and social norms
- Contribution to local communities
- CSR in the supply chain
- Based on the results of the self-diagnosis, we asked each company to make the best use of the results in their future activities

We asked each company to apply the results of their self-diagnosis to their future activities.

# Consumer Issues

## Communication with customers

We provide products of reliable quality to our customers through quality management based on ISO/IATF16949 certification, which is the automotive industry quality management system standard (QMS). We also introduce our quality initiatives through plant tours for Japanese and overseas automakers, dealers, and general customers. This year's event has been cancelled due to the prevention of the spread of COVID-19 infection.

## Responses to complaints

In response to inquiries received from customers with respect to products, we quickly investigate matters and issue reports. In the event that it is determined that issues have occurred during manufacturing, we initiate quick responses and work hard to prevent any reoccurrences.

# Community Involvement and Development

## Yokohama Forever Forest Project

A total of 23 people participated in tree planting in Aichi and Shizuoka prefectural parks, Shinshiro Shitara Ecosystem NW tree planting by the Aichi Prefectural Natural Environment Division, and local tree planting by providing tree seedlings and guidance on 11 occasions, working with local residents to create forests. In 2021, we provided 12,549 seedlings grown by ourselves for tree planting, etc. in each region.

## Yokohama Forever Forest Project (FY2021)

Jan 4	5 seedlings donated to Kanazawa-cho, Toyokawa City 【Osaka Shrine】 *Tree planting in the precincts of the shrine
Jan 12	60 seedlings donated to Tomioka Public Hall in Hachina, Shinshiro City *Tree planting around the public hall
Jan 19	100 seedlings donated [Shizuoka Prefectural Forest Park] *Red pine forest regeneration tree planting
Jan 20	100 seedlings donated to Donguri Mongori (NPO) *For tree planting in Nakatsugawa City Water Source Forest, Gifu Prefecture
Jan 20	200 seedlings donated to Donguri Mongoli (NPO) *Tree-planting at Expo 2005 Aichi, Japan
Feb 17	88 seedlings donated to Kamigo Nursery School in Toyota City *Tree planting at the nursery school
Feb 17	225 seedlings donated to Donguri Mongori (NPO) *Iwanuma City, Miyagi Prefecture [Millennium Hill of Hope] Tree-planting
Feb 21	58 seedlings donated [Shizuoka Prefectural Forest Park] *Supporter tree-planting in the park
Feb 26	63 seedlings donated [Horai Higashi Elementary School] *Graduation commemorative tree planting
Mar 13	70 seedlings donated to Sengen Shrine in Kanazawa-cho, Toyokawa City *Tree planting in the precincts of the shrine
Mar 16	43 seedlings donated to NPO Misono Yume Mura Koshitai *Tree-planting at the Oomurasaki Butterfly Dance Village
Mar 28	12 seedlings donated to the Ishihara Forest Road Council in Okazaki City *Tree planting for tree spawning of tree frogs
Apr 2	220 seedlings donated to Yoshikawa, Shinshiro City *Forest tree planting
Apr 7	7 seedlings donated to Nakamarket, Shinshiro City [Tsushima Shrine] *Tree planting in the precincts of the shrine
Apr 11	70 seedlings donated to Kanazawa-cho, Toyokawa City 【Osaka Shrine】 *Tree planting in the precincts of the shrine
Apr 15	230 seedlings donated to (NPO) Donguri Mongori *Tree-planting seedlings
Apr 15	200 seedlings donated to Donguri Mongoli (NPO) *Tree-planting at Expo 2005 Aichi, Japa

<b>Apr 23</b>	20 seedlings donated to Tominaga Shrine in Nagashino-cho, Shinshiro City *Tominaga Shrine's Chinju no Mori tree-planting
<b>May 3</b>	5 seedlings donated to Higashimikawa Furusato Park in Aichi Prefecture *Tree planting in the park
<b>May 5</b>	1,389 seedlings donated to Aichi Prefectural [Higashimikawa Furusato Park] *Distribution of greening trees
<b>May 5</b>	332 seedlings donated to Shinshiro General Park in Aichi Prefecture *Distribution of greening trees
<b>Jun 2</b>	385 seedlings donated to Shinshiro General Park in Aichi Prefecture *Distribution of greening trees
<b>Jun 2</b>	40 seedlings donated to Higashimikawa Furusato Park in Aichi Prefecture *Distribution of greening trees
<b>Jun 10</b>	360 seedlings donated to Horai Higashi Elementary School in Shinshiro City *Pot seedling making class
<b>Jun 10</b>	30 seedlings donated to Donguri Mongori (NPO) *Toei Town Water Source Forest Tree Planting
<b>Jun 11</b>	190 seedlings donated to Shinshiro General Park in Aichi Prefecture *Distribution of greening trees
<b>Jun 14</b>	54 seedlings donated to Higashimikawa Furusato Park in Aichi Pref *Distribution of greening trees
<b>Jun 14</b>	48 saplings donated to Shizuoka Prefectural Forest Park *Distribution of greening trees
<b>Jun 14</b>	130 seedlings donated to Shinshiro General Park in Aichi Prefecture *Distribution of greening trees
<b>Jun 28</b>	160 seedlings donated to (NPO) Jomon Gakko (Hamamatsu City) *Tree-planting in the tidebreak forest
<b>Jul 8</b>	Donated 48 saplings to Shizuoka Prefectural Forest Park *Distribution of greening trees
<b>Jul 8</b>	130 seedlings donated to Shinshiro General Park in Aichi Prefecture *Greening tree distribution
<b>Jul 8</b>	54 seedlings donated to Higashimikawa Furusato Park, Aichi Pref *Distribution of greening trees
<b>Jul 16</b>	170 seedlings donated to Donguri Mongori (NPO) *Miyagi Prefecture, Iwanuma City [Millennium Hill of Hope] For tree planting
<b>Aug 6</b>	241 seedlings donated to local residents *Distribution of greening trees
<b>Sep 15</b>	300 seedlings donated to (NPO) Donguri Mongori *Expo 2005 Aichi, Japan [Ghibli Park, Witches' Valley area] Tree planting
<b>Sep 19</b>	50 seedlings donated to Kanazawa-cho, Toyokawa City [Osaka Shrine] *Tree planting in the precincts of the shrine
<b>Sep 24</b>	305 seedlings donated to Donguri Mongori (NPO) *Expo 2005 Aichi Commemorative Park [Ghibli Park, Witches' Valley area] Tree-planting
<b>Sep 29</b>	140 seedlings donated to Donguri Mongoli (NPO) *Expo 2005 Aichi Commemorative Park [Ghibli Park, Witches' Valley Area] Tree-planting

<b>Oct 15</b>	210 seedlings donated to Shinshiro General Park in Aichi Prefecture *Greening tree distribution
<b>Oct 21</b>	180 seedlings donated to Aichi Prefectural Shinshiro General Park *Distribution of greening tree
<b>Oct 24</b>	2,040 seedlings donated to Higashimikawa Furusato Park, Aichi Pref *Greening trees were distributed.
<b>Oct 30</b>	650 seedlings donated to Aichi Biodiversity Strategy 2030 *Shinshiro Shitara Ecosystem NW tree planting
<b>Oct 31</b>	320 seedlings donated to Aichi Prefectural Shinshiro General Park *Distribution of greening trees
<b>Nov 4</b>	316 saplings donated to Aichi Prefectural Shinshiro General Park *Distribution of greening tree
<b>Nov 15</b>	75 seedlings donated to Tominaga Shrine in Nakamachi, Shinshiro City *Tree planting at Shinshin-no-mori (Shrine Forest)
<b>Nov 15</b>	40 seedlings donated to Kanazawa-cho, Toyokawa City [Osaka Shrine] *Tree planting at shrine forest
<b>Nov 20</b>	30 seedlings donated to Shizuoka Prefectural Forest Park *Tree planting in the park
<b>Nov 24</b>	210 seedlings donated to Donguri Mongori (NPO) *Nakatsugawa City, Gifu Prefecture 【Forest of Water Source】 Tree planting
<b>Nov 24</b>	100 seedlings donated to Donguri Mongoli (NPO) *Forest flower garden at Expo 2005 Aichi, Japan [Forest floor flower garden] tree-planting
<b>Nov 30</b>	80 seedlings donated to Donguri Mongori (NPO) *Toei Town 【Forest of Water Source】 Tree planting
<b>Dec 3</b>	80 seedlings donated to (NPO) Donguri Mongori *Toei Town [Suigen no Mori] tree planting
<b>Dec 4</b>	21 seedlings donated to Okazaki City [Ishihara Forest Road Council] *Tree planting around the biotope
<b>Dec 6</b>	1,080 seedlings donated to Shinshiro General Park in Aichi Prefecture *Distribution of greening trees
<b>Dec 18</b>	40 seedlings donated to Shizuoka Prefectural Forest Park *Tree planting in the park

## Collaboration with another company, Autobacs

In cooperation with Autobacs, we provide seedlings free of charge to local residents to familiarize them with trees.

Jun	241 seedlings donated to Autobacs Toyohashi Store
Jun	35 seedlings donated to Autobacs Toyokawa store
Jul	80 seedlings donated to Autobacs Okazaki store
Jul	164 seedlings donated to Autobacs Toyohashi store
Jul	105 seedlings donated to Autobacs Toyokawa store
Sep	120 seedlings donated to Autobacs Toyohashi store

In FY2021, we provided 12,549 seedlings and participated in tree-planting volunteer activities 11 times with 23 volunteers in consideration of social distance due to the effect of the COVID-19 voluntary restraint.



Shinshiro Shitara Network Council: Support for bus tours to experience tree planting



Shinshiro Shitara Network Council: Support for bus tours to experience tree planting

## Biodiversity protection activities

Our plants use a lot of river water to produce tires. We have been asking ourselves, "Is it enough for us to just receive water resources from nature? What can we do about it? With this in mind, we started biodiversity conservation activities focusing on water in 2012, and next year will mark the 10th year since then.

As for activities in FY2021, as in FY2020, activities were restricted due to the impact of COVID-19.

We will continue to collaborate with the government, universities, NPOs, and other companies by interacting with the Yotsuya Senmaida Preservation Society, one of our activity sites, and participating in the Shinshiro Shitara Ecosystem Network Council promoted by Aichi Prefecture. Yokohama Rubber's Shinshiro Plant will continue to contribute to biodiversity in the Shinshiro Shitara area by providing and planting broadleaf trees and seedlings grown from local seeds through the Forever Forest activities.



Activity site> Shinshiro Plant Biotope



Activity site> Noda River



Activity site> Kuroda River



Activity site> Yotsuya Senmaida

## Relationship with local societies

The Shinshiro Clean Festa hosted by Shinshiro City and various other events, including a round-table meeting for wardens and environmental monitors in the area surrounding the plant, have been cancelled for FY2021 to prevent the spread of COVID-19 infection. In addition, the All Japan Rally Championships: Shinshiro Rally will be held without spectators, as it was last year.

# Onomichi Plant (OP)

**Business activities**

Production of tires for large construction vehicles, mining vehicles and industrial vehicles.

**Total site area**

193,000m<sup>2</sup>

**Number of employees**

390 (as of December 2021)

**Location**

20 Higashi-Onomichi, Onomichi City, Hiroshima 722-0051, JAPAN

**Contact for consultation and complaints**

Plant Control Section

Tel: +81-848-46-4580

Fax: +81-848-46-4579



## Message from the General Manager



Tadashi Miura

The Onomichi Plant is situated commanding a view of the Setouchi-Shimanami Kaido Expressway. It is a production plant that is dedicated exclusively to manufacturing tires for large construction vehicles, mining vehicles and industrial vehicles.

We conduct our activities with the aim of "becoming a company with world class technologies for protecting the environment," as stated in Yokohama Rubber Environmental Policy, and based on "bright, happy and vigorous" activities and cherishing greetings and the "5S" activities. With regard to environmental matters, we have carried out the improvement of equipment, the reviewing of mechanisms, and repeated educational activities for the purpose of preventing a recurrence of any past environmental trouble. Such has also been carried out in order to realize a reduction of environmental risk, a reduction of greenhouse gas emissions and a reduction of industrial waste.

Meanwhile, in terms of contribution to the local community and communication activities, we have been taking into consideration the status of COVID-19, opening the "Dinosaur Park" on the plant premises to the public, accepting children, students, and guests for plant tours, participating in local cultural activities and events, and promoting the "Heisei no Mori" project in Otsuchi Town, Iwate Prefecture. We continue to actively participate in

local cultural activities and events, and promote the creation of a " Forever Forest" in the town of Otsuchi, Iwate Prefecture. Furthermore, we commenced a biodiversity protection survey in 2013, and we have been continued our measures to maintain and improve biodiversity, both here on the plant premises and in the neighboring watercourses.

In the future as well, the Yokohama Rubber Onomichi Plant will be considerate of the global environment, and as we aim to be a business that is both loved by our region and contributes to society, we will strive to become a company that is trusted by the region.

## Organizational Governance

We have formulated plant safety, environment and quality policies, and we make use of regular morning meetings etc. to ensure that employees have a thorough understanding of these policies. In our day-to-day operations, by carrying out our work according to carefully documented standard operating procedures, we are able to implement a management system that prevents improper working methods, and we also undertake ongoing improvement. Managerial staff undergo compliance-related training on a monthly basis, and we are working to enhance awareness of compliance-related issues among all employees.



Morning meeting



TPM instruction

## Human Rights

### Respect for human rights

In order to create a pleasant workplace where employees can work cheerfully, happily and energetically, we conduct workplace education, covering a variety of areas including information management, workplace bullying and harassment prevention, etc., every month. The content of this training involves the management of information and other issues such as workplace bullying, etc. We also maintain close collaboration with the Corporate Compliance Department regarding compliance-related reports and consultations, and if a problem occurs, we will promptly respond to it.

## Labor Practices

### Occupational safety and health measures

The plant obtained Occupational Safety and Health Management System (OSHMS) certification and has continued its certification activities. 0 lost time injuries, 1 lost time injury, and 1 minor injury occurred in FY2021, but we took steps to prevent recurrence by revising work procedures and horizontally deploying the system with other sections. Moreover, by focused safety education activities, the revision of standard operating procedure (SOP) manuals through open work observations, individual education based on safe employee evaluation, the undertaking of one-on-one training between deputy work supervisors and workers, mutual advice, and daily "KYT" Hazard Prediction Training activities, we are working to heighten the consciousness of our employees with respect to safety.

We promote "safe employee" development as part of these activities, and award model employees with certification as



“super safe employees”.

We have also begun implementing “safe employee” evaluation by process, to facilitate implementation of measures aimed at realizing improvements in relation to weaknesses at individual workplaces.

## **Onomichi Plant Safety and Health Policy**

### **Basic Policy**

Based on the recognition that the safety and health of all workers is the foundation of corporate activities, we will work to prevent occupational accidents and create healthy and comfortable workplaces.

### **Action Guidelines**

- 1. We will educate all plant workers on the importance of safety and health, provide the necessary education and training, instill a safety-first mindset, and build a culture of safety to develop human resources capable of taking action to ensure safety.**
- 2. Reduce risks by prioritizing and systematically improving issues extracted from risk assessments and daily near-misses in terms of laws, regulations, safety, disaster prevention, and the workplace environment by breaking them down into personnel, equipment, and operations.**
- 3. We will improve the work environment in the workplace through education and activities so that 5S activities (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke) can be practiced voluntarily.**
- 4. We will promote the creation of a comfortable work environment through the improvement of the work environment and mutual communication, and work to improve the mental and physical health of our employees.**
- 5. As a business involved in the automotive industry, we proactively engage in activities that contribute to the prevention of traffic accidents thus aim to achieve the distinction of recording zero harmful accidents.**

Jan-2021

Tadashi Miura

General Manager, Onomichi Plant

## **Education and training for employees.**

- We conduct open work observations every month in accordance with the Standard Operating Procedure and abnormal Operating Procedure to make improvements by sorting out work risks.
  - Contests are held to invigorate and improve KYT (hazard prediction training). (Held six times a year).
  - At the sensory training hall which enables for the experiencing of actual risk, all employees with less than three years of work experience undergo training once a year that is administered by the staff of the safety and health section.
  - Concerning one-to-one education provided by managers to employees, for those with little work experience it is conducted once or more every three months, for veteran employees it is conducted once every six months.
  - Basic lifesaving training was scheduled to be taken twice a year at the Fire Department (30-50 participants/year), but due to the response to COVID-19, this has been postponed. Three employees have been certified as instructors so that they can provide training at the plant, and we are planning to conduct the training at the plant in the future.
- \* As of the end of December 2021, 30 qualified employees (within the deadline) and 175 (outside the deadline) are scheduled to take the course after the resumption of training.

## **Responses in case of disaster**

- We have organized a disaster-prevention, self-protection force comprised of plant members. This force conducts both map-based drills and evacuation drills for all plant employees (including tsunami scenarios). Each type of drill is conducted once a year.
  - We also hold a night evacuation drill once a year for all shifts.
- Emergency contacts and emergency evacuation routes are posted at every process location of the plant, and they are thoroughly made known to all employees.

## Promotion of employment of people with disabilities

Four disabled persons work at the plant. The tasks they undertake include both office work and light duties. We are continuing with activities for the purpose of newly-hiring disabled persons again in fiscal 2022.

## Work-life balance

In aiming to improve the work-life balance of our employees, we manage overtime and promote the use of at least five paid holidays per year.

# The Environment

Yokohama Rubber operates an environmental management system that is completely integrated throughout the entire company and makes efforts toward reducing risks by risk identification, countermeasures and improvements in areas exposed to environmental risks, through environmental risk management, implements its operations in compliance with relevant laws and ordinances, including the Pollution Control Agreement between the Onomichi Plant, Hiroshima Prefecture and Onomichi City, and looks to reduce risks by spreading awareness of nonconformities and small incidents at other Yokohama Rubber facilities. We are also implementing improvements to achieve ongoing enhancement of environmental performance, including a reduction of industrial waste and reduction of GHG emissions by promotion of energy savings. As a result of a plan to increase our internal audit staff according to corporate policy so as to further strengthen the ISO 14001 management system, we currently have 92 internal audit staff registered. We will further increase the number of staff according to our plan.

As one of our environmental activities, we have participated in the "Green Curtain Contest" sponsored by Onomichi City, and have won consecutive awards and been inducted into the Hall of Fame.

## Onomichi Plant Environmental Policy

In line with Yokohama Rubber's management policy "Deal fairly with society and value harmony with the environment," we strive to embody genuine consideration for the global environment, and to be a top-level business in terms of our contribution to the environment.

1. The Onomichi Plant addresses measures in consideration of the environment in all of its activities under the leadership of top management, and it implements world-class environmental activities.
2. The Onomichi Plant continues its education and enlightenment programs so that each one of its employees understands this Policy and acts accordingly.
3. The Onomichi Plant has strengthened its Environmental Management System in order to become a plant trusted by local communities and it continues to advance management with a proactive stance in order to prevent environmental pollution and improve the environment, while aiming to reduce environmental risk to zero.
4. The Onomichi Plant complies with related laws, regulations and agreements, etc. It promotes harmony with local communities, and works to make both a regional and social contribution.
5. To achieve carbon neutrality, the Onomichi Plant will promote energy-saving activities. We will promote less use and reuse of resources to realize a recycling-oriented society.
6. We will maintain the lush green Forests of Forever Forest on the site and contribute to the preservation of the biodiversity of the Seto Inland Sea.
7. In order to realize the Environmental Policy, the Onomichi Plant shall implement effective environmental management coordinated with its efforts to safeguard the local environment.
8. This Policy shall be published.

1-January 2022  
Tadashi Miura  
General Manager, Onomichi Plant

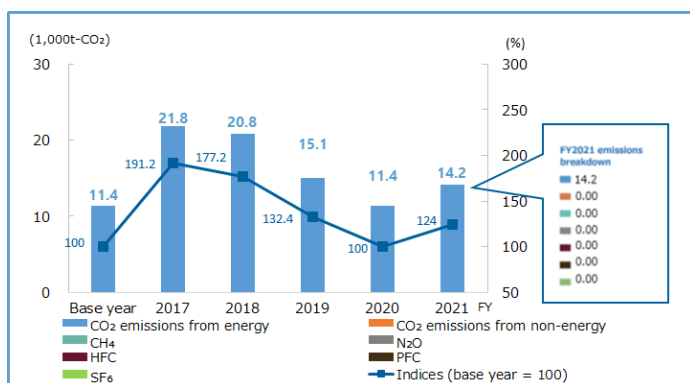
## Environmental data

### Reductions in greenhouse gas emissions

The plant's major energy sources are electricity and the city gas which is used as boiler fuel. Of the energy used in fiscal 2021, electricity accounted for 54.8%, city gas for 44.8% and other fuel sources 0.4%.

#### Greenhouse gas emissions

In order to reduce environmental loads, we have made efforts toward reducing GHG emissions by reduction targets for GHG emissions (total amount). In fiscal 2021, our energy-saving activities progressed as planned.



※The base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

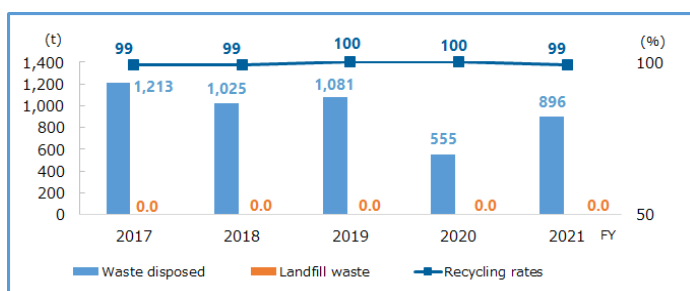
※Method of calculation of greenhouse gases (GHG): this is in compliance with the "Calculation and Reporting Manual for Greenhouse Gas Emissions" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

Note that GHG emissions associated with purchased power in FY2009 were calculated using the Table of Emission Coefficients by Power Company (Ministry of the Environment).

### Effective use of resources / Reduction of waste

#### Waste output

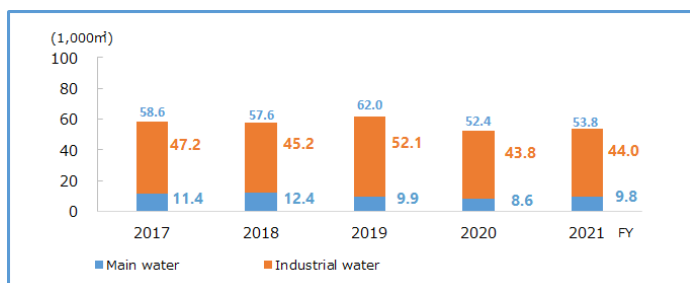
The Onomichi Plant has maintained a recycling rate of 100%.



#### Water usage

The Onomichi Plant collects industrial water from the Numata River water system (river water) that flows in Hiroshima Prefecture.

Water is collected from the city waterworks of Onomichi City. We are working to reduce the amount of water use by circulating plant cooling water. Furthermore, we have implemented improvement measures by setting reduction targets.



## Measures for discharge into water, air and soil

### Data related to water contamination

Our plant mainly uses water from the Numata River water system in Hiroshima Prefecture.

We discharge rain water into a public body of water and life system water is discharged into the sewage system of Onomichi City. The water quality of discharges is managed by setting voluntary standard values.

Item	Regulatory values	Voluntary standard values	FY2021 result		
			Average	Maximum	Minimum
pH	More than 5–less than 9	5.4 or more–8.6 or less	7.4	7.6	7.2
BOD concentration (mg/l)	Less than 600	Less than 315	30.1	83	5.2
SS concentration (mg/l)	Less than 600	Less than 200	26.8	85	2
Plant and animal oil concentration (mg/l)	5 or less	Less than 2.0	Less than 1	Less than 1	Less than 1
Mineral oil concentration (mg/l)	30 or less	Less than 24.0	7.8	18	Less than 1

※Regulatory values are in compliance with the Onomichi City Sewage System Ordinance. Voluntary standard values were changed in September 2012.

### Air pollutants (NOx, SOx, soot and dust)

Sooty smoke is measured twice a year by each individual boiler in order to monitor emissions and the density of pollutants. As a result of switching the fuel of boilers to city gas, emissions of Sulfur oxides into the air are now minimal. Thus, the Pollution Control Agreement was amended in March 2013. As a result of this development, the measurement of SOx is no longer necessary.

Item	NOx	SOx
Amount of emission (t/year)	3	—

Facility	Substance	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Onomichi Plant Boiler 1	NOx (ppm) Soot and dust (g/m <sup>3</sup> N)	150 0.10	123 or less 0.011 or less	56 Less than 0.015	63 Less than 0.002	49 Less than 0.001
Onomichi Plant Boiler 2	NOx (ppm) Soot and dust (g/m <sup>3</sup> N)	150 0.10	120 or less 0.05 or less	85 Less than 0.001	87 Less than 0.001	83 Less than 0.001

※In compliance with the Pollution Control Agreement with Hiroshima Prefecture and the Pollution Control Agreement with Onomichi City.

## Soil contamination

In order to monitor the status of contamination of soil by specified hazardous substances, we voluntarily measure and monitor the constituents of groundwater once every few years.

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Onomichi Plant verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

[the Safety Evaluation Table of Domestic Production Bases.](#)

## Biodiversity conservation activities

For the protection of biodiversity, the regional event in June 2021 was cancelled due to the response to COVID-19. We conducted conservation of the Fujii River near the factory, which flows into the Seto Inland Sea, and monitoring surveys and conservation activities for insects and birds on the factory premises, which were scheduled to be conducted three times a year but were reduced to once a year due to the voluntary restraint.



Monitoring activities within the grounds of the plant



Monitoring activities at the Fujii River Water Park

## Fair Operating Practices

### Communication with business partners

In collaboration with the Materials Procurement Department and Raw Materials Procurement Department, we collect opinions and requests from business partners and then respond to them sincerely. We also respond appropriately to questionnaires received from business partners.

Furthermore, we are constantly hosting plant tours both by manufacturers who purchase our products and sales agents. These tours give the visitors an opportunity to inspect the production frontlines and to confirm the quality of our products.

## Consumer Issues

### Responses to complaints

When defect information is received from the market, we analyze the usage conditions and the failed tire to determine the cause. The results of the analysis are reported to the customer via the department in charge. 78 analysis reports were submitted in fiscal year 2021. The majority of the failures were caused by usage conditions, but in cases where the failure was due to manufacturing or design factors, we promptly implement countermeasures to prevent recurrence.

# Community Involvement and Development

## Relationship with local societies

As a place of recreation for people in the region, we open the Dinosaur Park to the public every day, from 8:00 a.m. to 4:30 p.m. We have also installed a restroom exclusively for visitors (which can also handle visitors in wheelchairs). This allows visitors to the park to enjoy a more comfortable time.

In fiscal 2021, a total of 1,088 persons visited the Dinosaur Park.

We received one group for a plant tour.



The Dinosaur Park is open to the public

## Participation in local activities

We participate and cooperate in local festivals every year.

The festival was cancelled in 2021 due to COVID-19.

Cooperation in Onomichi Truck Festival (September)

Volunteer participation in preparing and clearing up after the Onomichi Lantern Festival (October)



Onomichi Lantern Festival (FY2018)

Blood donation activities by employees (Cancelled due to COVID-19)

Beautification activities around the plant (once a month) (91 participants)

Fujii River Evening



Fujii River no Yube – Evening event at Fujii riverside (FY2019)

## **Plant tour and workshop**

We accept requests for plant tours from schools and companies from time to time.

Available days: Days when plant is in operation: from Monday to Friday

(Except for year end and New Year holidays, and consecutive holidays in May and

August) Hours: 9:00 a.m. to 3:00 p.m.

Contact: Onomichi Plant, Plant Control Section

Tel: +81-848-46-4580

A 30-minute walk from Higashi-Onomichi Station.

# Ibaraki Plant (IP)

## Business activities

Production of high-pressure hoses, sealing materials

## Total site area

152,000m<sup>2</sup>

## Number of employees

275 (as of the end of December 2021)

## Location

1 Hatori-Nishi, Omitama City, Ibaraki 319-0198, JAPAN

## Contact for consultation and complaints

Tadashi Kamimura, Plant Management Division

Tel: +81-299-46-1111

Fax: +81-299-46-0235

E-mail: [tadashi.kamimura@y-yokohama.com](mailto:tadashi.kamimura@y-yokohama.com)



## Message from the General Manager



Takashi Kojima

The Ibaraki Plant started its operations in 1973 as an exclusive plant of high pressure hoses, one of the largest in Japan, and in 1997 it started plant operations for building sealing materials and has continued production until today.

While working on measures in accordance with Yokohama Rubber's YX2023 Basic Policy so we become "a company having world-class strengths in technologies for protecting the environment", in that we also aim to achieve harmony, fusion and coexistence with the abundant and beautiful nature of Ibaraki, the plant is promoting numerous regional and social contribution activities in addition to its environmental policies. With respect to reducing industrial waste, we have achieved results by strengthening team-improvement activities under the themes of reducing process nonconformities and improving materials and equipment management. As regards energy saving activities, all employees actively promote renewal of machinery and equipment by replacement with energy-saving models, increased energy saving awareness and paperless processes. The plant has been maintaining the highest AAA rank of the eco office registration system established by the prefecture.

Furthermore, the planting of trees at the plant, which began in 2008, was completed in 2012, we continue to grow seedlings. We donate these seedlings to both locally-held planting events.



As part of our biodiversity activities started in 2013, we have conducted bird watching, insect watching, and vegetation surveys inside the plant, as well as water quality and aquatic life surveys of the Sonobe River at the outlet of plant effluent three times a year to investigate the impact of the plant effluent on nature. Although we have recently suspended large-scale activities due to the impact of COVID-19, we have been publicizing these activities to the local community in order to improve communication.

Additionally, our biodiversity activities have been recognized, in that in 2019 we were certified by ABINC as a Living Creature Coexistence Office®.

We further strengthen our environmental management systems at the Ibaraki Plant, and push forward with the total-employee participation model, both with regard to those activities that make an environmental contribution, and with regard to the prevention of environmental trouble.

## Organizational Governance

### Decision-making processes and structures

The following three items have been established with respect to the structuring of the plant's safety culture:

1. Greet your guests properly
2. Keep your appearance neat and tidy
3. Be sure to point and call properly

With respect to the plant's safety, environment and quality policies, such are established in accordance with corporate policy. Concerning their orientation, such is decided through the meetings system.

## Human Rights

### Consideration of human rights by suppliers

In February 2021, the 10th CSR study session was not held for COVID-19, and we sent study materials to our suppliers and collected questionnaires.

This time, the six items were as follows:

1. Yokohama Rubber's CSR Activity Policy
2. Green Procurement Guidelines
3. Workplace Safety
4. Information Security
5. Introduction of Compliance Violation Cases
6. Sustainability Initiatives with Our Suppliers

### Complaint resolution

There were no reports submitted to the Corporate Compliance Department in 2021, and no consultations requested.

# **Labor Practices**

## **Creating a safe and healthy workplace environment**

Based on the recognition that the basis of corporate activity is assuring the safety and health of both our employees and those of cooperating companies, Occupational Safety and Health Management System (OSHMS) certification in accordance with Japan Industrial Safety & Health Association (JISHA) standards was obtained, and safety and health management has been implemented. This was done as a means by which to realize a safe, comfortable, and healthy workplace.

Safety management at each workplace is followed up at the Safety and Health Committee monthly.

This fiscal year, efforts have focused on improving the risk (pinching and entanglement) of power components such as lifting and lowering cylinders and rotating objects, particularly for achieving fundamental safety in plants.

Furthermore, we focused on education and training for basic operations (scalpel/knife, drum transportation, forklift, and crane operations) and competency assessment.

In addition, we have also focused on traffic safety education because the majority of employees commute to work by car, and we have worked to develop safe drivers and prevent accidents through means such as inviting external instructor to hold courses on traffic manners in an effort to improve driving manners.

## **Circle activities**

Circle TPM improvement activities are being conducted to allow employees to make their own workplaces more comfortable and easier to work at. We are working to vitalize these activities through the holding of events including regular announcements on the results of improvements and bulletin board contests.

## **Human resources development and training**

Work training is undertaken by our assignment of more senior workers to instruct both new hires and fixed-term employees. This one-on-one training increases individual skill levels because training results can be reviewed and revisited.

## **Promotion of employment of people with disabilities**

As part of our promotion of the employment of disabled people, we currently have one disabled employees working actively in the plant.

We will continue to implement improvements to create a barrier-free workplace, so as to foster the employment of disabled people.

## **Work-life balance**

Two days a week, Wednesdays and Fridays, have been established as days with specified hours for leaving work.

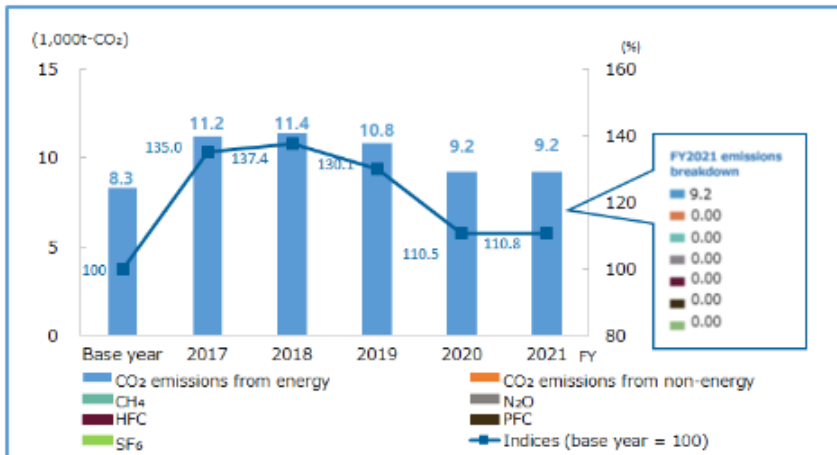
# The Environment

## Environmental data

### Reductions in greenhouse gas emissions

#### Greenhouse gas emissions

Greenhouse gas emissions have been gradually decreasing since fiscal 2010.



※The base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

※Method of calculation of greenhouse gases (GHG): this is in compliance with the "Calculation and Reporting Manual for Greenhouse Gas Emissions" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

Note that GHG emissions associated with purchased power in FY2009 were calculated using the Table of Emission Coefficients by Power Company (Ministry of the Environment).

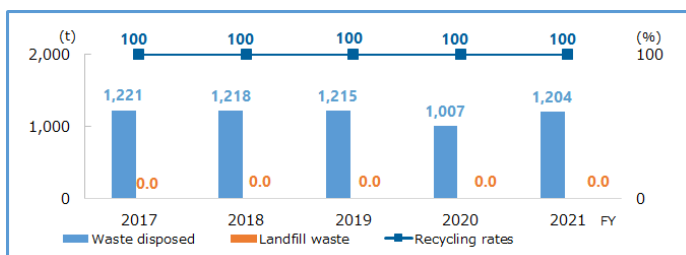
### Effective use of resources / Reduction of waste

#### Waste output

From fiscal 2006, we have continued complete zero emissions.

#### Waste landfill

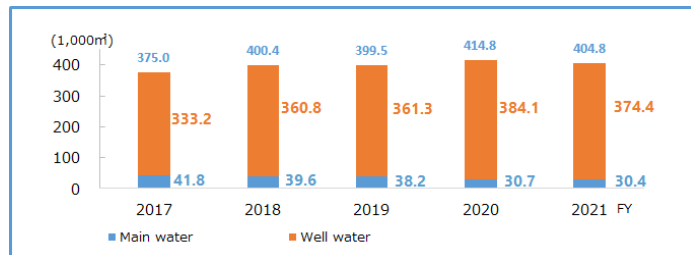
In fiscal 2007, we achieved a recycling rate of 100% and we have maintained that rate since.



## Water usage

The plant uses 400,000 tons of water a year.

Sources consist of underground water of about 90% and city waterworks of 10%.



## Measures for discharge into water, air and soil

### Data related to water contamination

The plant discharges about 430,000 tons of wastewater a year into the Sonobe River.

Item	Regulatory values	Voluntary standard values	FY2021 result		
			Average	Maximum	Minimum
pH	5.8~8.6	6.7~8.2	7.6	8.1	6.7
BOD concentration (mg/l)	10	6.5	2.3	6	1.0
COD concentration (mg/l)	10	5.5	1.7	4.3	1.0
SS concentration (mg/l)	15	5	1.0	1.0	1.0
Mineral oil concentration (mg/l)	3	0.8	0.5	0.5	0.5

※Ibaraki Prefectural Ordinance and Environmental Protection Agreement with Omitama City

※Discharge point: Sonobe River

## Soil contamination

We conduct groundwater analysis (shallow well) once a year and confirmed that the standard values were within the laws and the ordinances of Omitama City.

## Air pollutants (NOx, SOx)

Measurements are conducted twice a year, and we have confirmed that the results are within the standards set out in all laws and in Omitama City Ordinances.

Substance	NOx	SOx
Amount of emission (t/year)	1	0.3

Facility	Item	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Ibaraki Plant No.1-No.3 Boiler	SOx emissions (K-value) NOx (ppm) Soot and dusts (g/m <sup>3</sup> N)	17.5	10 or less	0.30	0.48	0.19
		260	125	55	72	33
		0.3	0.1	0.0015	0.003	0.001

※The Air Pollution Control Act and Environmental Protection Agreement with Omitama City.

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Ibaraki Plant verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

[the Safety Evaluation Table of Domestic Production Bases.](#)

## Noise reduction

Noises are measured at 15 places on the border of the plant premises once a month. We can confirm that the results are within the standards set out in Omitama City Ordinances (below 55db).

## Preventing pollution

So as to prevent risks to the environment, once a year we conduct drills and tests in response to predicted emergency scenarios (such scenarios include oil leaks occurring from heavy oil storage tanks and solvent cans being upset during transportation, etc.).

## Steps to reduce industrial waste

On the issue of reducing industrial waste, through our waste-reduction (MD) activities, we are revising the methods used to segregate waste within the plant and also promoting a paperless culture. Concerning auxiliary materials that are incidental to our products, we have obtained the EU ELV and RoHS Statement of Non-Inclusion Directives. Furthermore, goods that we purchase do not contain those substances that are subject to these provisions.

## Alleviating and responding to climate change

As energy-saving activities, we have introduced LED lighting, and adopted the use of high-efficiency air conditioners and motors, along with promoting the application of heat-resistant and heat-retaining materials.

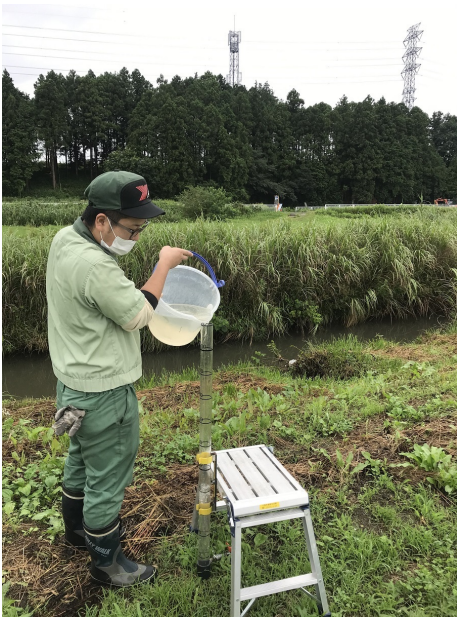
"Energy-saving Month" activities were implemented in February and August, with all employees participating in energy-saving promotion activities; a number of suggestions were put forward for reducing unnecessary energy wastage, and improvements were made.

## Environmental protection, and recovery of natural habitats

Concerning the Sonobe River into which discharges from this plant flow, biodiversity protection surveys have been conducted at a frequency of two times a year. During these surveys, we have monitored water quality, aquatic life, plants and birdlife, etc. We have also taken steps to eliminate certain species of introduced plant and aquatic life.

In addition, starting in 2019, we have organized a new "Survey on the Living Environment of the Grey-faced buzzard (*Butastur indicus*)" to survey the vegetation and small animals (amphibians and reptiles) in the plant, focusing on the Grey-faced buzzard, which is as a Vulnerable, as one of the indicators for environmental conservation.

While taking measures to prevent the spread of COVID-19, we will continue to exterminate invasive species and conduct monitoring three times a year.



Water quality survey



Water quality survey



Confirmed inside the plant



Rare plant (Ainae)



Bird survey

## Fair Operating Practices

### Thorough statutory compliance

The managers mainly responsible for placing orders with subcontractors have participated in seminars dealing with the improvement of subcontracting transactions. In addition, all personnel acting as subcontractor contact persons attended the subcontractor study sessions organized by the Indirect Materials Procurement Department that were held at the plant, reinforcing their understanding of legal requirements.

### Consideration of supplier labor, safety and workplaces

Business dealings are conducted that are fair, transparent, openly competitive and suitable.

### Thorough compliance

At the 9th CSR Study Meeting, the following information was shared.

1. Yokohama Rubber's CSR Activity Policy
2. Green Procurement Guidelines
3. Workplace Safety
4. Information Security
5. Introduction of Compliance Violation Cases
6. Sustainability Initiatives with Our Suppliers

As education within the company, we hold compliance seminars at a frequency of once a month.

## Consumer Issues

### Responses to complaints

If any complaints are raised about products, we quickly collect the actual item and investigate the causes and prepare reports to make a response satisfactory to the customer.

## Community Involvement and Development

### Coexistence and shared prosperity with the local community

We had planned to hold a round-table discussion on biodiversity conservation activities, but due to the outbreak of COVID-19, we decided to postpone the meeting in the plant and distribute related materials.

### Employment creation

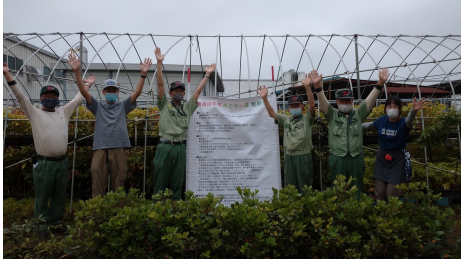
No new graduates were hired in 2021. Six mid-career hires were made. As part of our efforts to promote the employment of older people in the local community, the plant is currently employing five people introduced by the local Senior Human Resources Center.

## Regional contributions

In FY2021, due to the outbreak of COVID-19, events such as the Fureai Plaza in Hatori district and the Fureai Festival in Omitama City, as well as the Otsuchi Gakuen "Hometown Department" tree-planting event, in which we are participating as volunteers, were cancelled.

A total of 845 seedlings were provided free of charge to Silva, a non-profit general incorporated association, in May, June and November.

The saplings were planted in the Shonan International Village Meguri-no-Mori project and Silva farmland.



Providing seedlings to Silva



Providing seedlings to Silva

## Discussion for local residents regarding our activities to help safeguard biodiversity

We had planned to hold a round-table discussion on biodiversity conservation activities, but due to the outbreak of COVID-19, we had to distribute related materials.

## Relationship with local societies

As part of our efforts to foster close communication with local government authorities and local corporations, we attend the regular meetings of the local corporation association to exchange views and share information with the Mayor, local councilors and the managers of other local corporations. (The annual meeting of the Omitama City Business Association was held on February 6, with 25 representatives of 13 companies attending)

## Plant tours

We only conducted a tour for job seekers (high school students) in July 2021.

While looking at the situation of COVID-19, we are being promoted to communicate with neighboring areas.



# Nagano Plant (GP)

## Business activities

Production of hydraulic-hose fitting and auto-hose fitting parts, and the production of self-sealing assemblies, coupling assemblies, hydraulic-hose assemblies, and auto-hose assemblies

## Total site area

28,169 m<sup>2</sup>

## Number of employees

345 (as of January 2021)

## Location

9100 Kawano, Toyooka-mura, Shimoina-gun, Nagano 399-3201, JAPAN



## Nagano Plant (Takamori)

### Total site area

19,809 m<sup>2</sup>

### Location

548 Yoshida, Takamori-cho, Shimoina-gun, Nagano 399-3102, JAPAN

\*Production operations ceased in late June 2017.

### Contact for consultation and complaints

Plant Control Section

Tel: +81-265-34-2051 Fax: +81-265-34-2052

E-mail: akihiko.sugeta @y-yokohama.com

## Message from the General Manager

The Nagano Plant began operations in the town of Takamori in 1961.

In 2013, we began implementation of a plan to integrate the metal fittings processing and hose assembly operations of the Hoses and Couplings Division. The first stage in this project was the relocation of the functions of the Hiratsuka-Higashi plant (in Kanagawa Prefecture) to a new factory built in Toyooka Village; this relocation was completed in February 2014. In 2015, work began on the construction of a new factory on an adjacent site; and this was completed in November 2016. We then proceeded to move the functions of the Takamori Plant to the new factory, the relocation of major production facilities was completed in June 2017, and this marked a major new step forward for us with the development of integrated production, including everything from metal fittings processing through to hose assembly.



Eita Minegishi

Through machining and cutting processes that make use of equipment such as multi-axis CNC machines and NC lathes, etc., we produce oil pressure hose clasps and hose clasps for automobiles; we also complete the production of hoses produced at the Ibaraki Plant by caulking and assembling them. These products are then supplied to various hosepipe markets such as the construction machinery, machine tools and automobile manufacturing industries.

Besides being used for assembly in our own factory, the clasps that we manufacture are also supplied to affiliated plants in Japan and overseas and to other domestic customers nationwide. Furthermore, we don't just engage in the cutting of clasps, we also undertake the assembly of self-seal couplings.

The Nagano factory is located on the east bank of the Tenryu River, in the Ina Valley with its beautiful natural scenery, bordered by the Southern Alps (Akaishi Range) and the Central Alps (Kiso Range).

Precisely because of our location in such a marvelous natural environment, we are determined to keep the burden that we place on the environment as small as possible, and we are implementing various measures aimed at combatting global warming and at contributing to the development of a recycling-based, low-carbon society through energy conservation, resource-saving and recycling.

As regards energy-saving, in addition to promoting familiar energy-saving activities both at the plant and in the homes of all employees by acting as one, by introducing and renewing power saving-type equipment within the plant and seeking to control the wasteful use of energy, we are actively striving to help prevent global warming.

With regard to community and CSR activities, since fiscal 2013 we have been undertaking biodiversity conservation work involving surveys of the flora, aquatic fauna and birds along the Oshima and Tenryu Rivers. Such activities will help in conservation.

On September 7, 2015, thanks to assistance provided by Nagano Prefectural Government, we signed a "Forest Stewardship Agreement" with Toyooka Village and began to undertake satoyama (traditional community-managed forest) conservation work with respect to the area around the Toyooka Village Gymnasium and Sports Ground. In 2016, our efforts in these activities received recognition in the awarding of the Shimoina Forest Association Chairman's Prize in the Minami Shinshu Healthy Forests Awards.

Concerning the "Yokohama Forever Forest Project" that has continued since 2007, we concluded the plan for stage VI tree planting activities in 2013, and in 2016 we donated a total of 1,040 seedlings grown at the plant to local towns and villages. For the Tenryu River which flows through the region, each year we proactively participate as a party in charge of allocations during the river cleanup (the environment picnic).

We also make effective use of opportunities for communication and exchange with the residents of Takamori and Toyooka, for example by arranging plant tours for local elementary and high school students and members of local organizations, etc. In addition to listening to what people have to say, we are working to improve understanding of the Company's business activities and its environmental conservation efforts.

Furthermore, by visiting the suppliers who collaborate with us on the provision of materials and parts for our business, and by proactively encouraging our customers to visit us, we foster smooth, two-way communication, in line with our aim of being a factory that is able to respond effectively to every nuance of market needs within the supply chain.

## Organizational Governance

Concerning decision-making, a system is in place so that monthly meetings are held for each different area. Safety and health issues are decided by the Safety and Health Committee, environment issues by the Environment Committee, energy issues by the Energy Savings Committee, and quality issues by the Quality Committee. Furthermore, Section Chief Meetings and Follow-up Meetings are held as required to make decisions on plant-wide issues. Employees are notified of the decisions made by this committee system through daily communications and by the General Manager's Morning Meeting held at the start of each month.

As regards compliance awareness-raising activities, at the end of each monthly Safety and Health Committee meeting, the Safety and Health Section Chief (who also serves as head of the Corporate Compliance Department) uses the Department's "Workplace Learning Session Materials" to implement education for the meeting participants. In each workplace, the members of the Safety and Health Committee implement the activities decided on at the workplace safety and health committee meetings on a plant-wide basis.

## Human Rights

### Supply chain relations

Regarding our relationship with our parts and materials suppliers, we visit each supplier each year on a systematic basis to perform on-site verification of the production status and quality management situation, with the aim of putting our collaboration with partner companies on an even firmer footing.

We also aim to foster effective communication with suppliers through the holding of Purchasing Liaison Meetings, Supplier Quality Coordination Meetings, and CSR Study Meetings.

Regarding our customers, by attending certified plant management meetings and hosting plant inspections, we are able to assist customers with their business operations by maintaining a clear picture of the types of products and services that our customers, and the market as a whole, require.

# Labor Practices

## Nagano Plant Safety and Health Policy

### Nagano Plant Safety and Health Policy

#### Basic Policy

Following the Management Policy "Create a workplace that values, improves and energizes people," Yokohama Rubber shall consider the safety and health to be the basis for everything, and focus on preventing occupational accidents and creating workplaces comfortable and healthy both physically and mentally.

#### Health and Safety Policy

1. Giving top priority to the safety and health, participating by all members and developing globally, whole Yokohama Rubber group will improve the safety and health activities.
2. Yokohama Rubber will comply with all laws and regulations related to the safety and health, and take continuous improvement for the safety and health.
3. Yokohama Rubber will communicate with stake holders and cooperate with value chains to contribute to the local communities and the society.
4. Yokohama Rubber will strengthen the use of the Occupational Safety and Health Management System and repeat the PDCA cycle for continuous improvement.
5. Yokohama Rubber will carry out Risk Assessments for the "safety of the equipment" and "establishment of the Standard Operating Procedure" to promote reduction of the risk.
6. Being a part of the automotive industry, Yokohama Rubber will take preventive measures against traffic accidents.
7. Yokohama Rubber will create the safe and comfortable workplace, and take measures to promote physical and mental health positively.
8. Yokohama Rubber will make employees recognize the importance of the safety and the health, and provide education and training for them as required.
9. Yokohama Rubber shall publish this policy and make it known to all.

January 1, 2022  
Nagano Plant, Yokohama Rubber Co., Ltd.  
General Manager  
Eita Minegishi

## Disaster-prevention drills

Disaster drills were conducted on November 6, 2021 for the Information Control Team, December 2, 2021 for the Self-Defense Fire Brigade and Rescue Team, December 3, 2021 for the Maintenance and Security Team, and December 9 (daytime) and December 13 (nighttime), 2021 for the Evacuation Team, while taking COVID-19 countermeasures.



Evacuation Drill



Rescue board bench check



Inspection of firefighting equipment



Fire hydrant inspection



Emergency power generator inspection



Radio communication check

# The Environment

## Nagano Plant environmental policy

Following the norm of "valuing fairness to society and harmony with the environment" as stated in our management policy, we will become a top-level environmentally friendly business site that embodies "caring for the future" for the sake of the global environment.

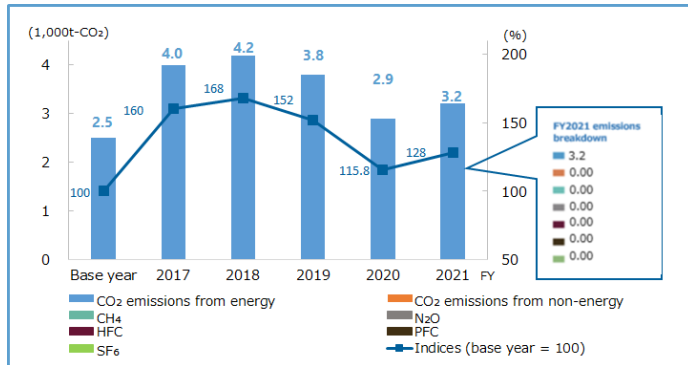
1. Under the leadership of senior management, the Nagano Plant, as an integrated clasp-processing and assembly operation, works on reducing environmental impacts at all stages on a global level, from production to waste recycling/handling, by implementing world-acclaimed environmental activities that are uniform through the Group.
2. In order to remain a plant that is trusted by society, we strive continuously to prevent environmental pollution and sensory pollution and to reduce environmental impact through chemical substance management in our effort to improve the environment. We achieve this by strengthening our environmental management systems and adopting a proactive stance in an aim for zero environmental risks.
3. To achieve carbon neutrality, we will promote decarbonization measures such as energy-saving activities and introduction of renewable energy. We will also promote resource conservation and recycling to realize a recycling-oriented society.
4. We observe the environment-related laws and regulations applicable to the plant, and other agreements which we have entered into, and we continue to implement measures aimed at furthering environmental protection.
5. We work to promote cooperation with the value chain and to contribute to both the local community and society as a whole. While doing so, we shall respect international regulations and deepen our communication with stakeholders.
6. We have set out environmental objectives and targets to realize the environmental policy of the plant, and we prepare and implement plans accordingly.
7. We maintain communications with the local community, and promote activities in harmony with the region that also make a positive contribution to the region.
8. We will strive to conserve biological diversity irreplaceable in the region and use natural resources in a sustainable manner in our business activities.
9. To improve their own understanding, awareness, and actions, we educate and enlighten all our employees and individuals so that they fully understand this environmental policy.
10. Our environmental policy shall be made available to the public upon request.

January 1, 2022  
Nagano Plant, Yokohama Rubber Co., Ltd.  
General Manager  
Eita Minegishi

## Environmental data (Nagano Plant)

### Reductions in greenhouse gas emissions

Greenhouse gas emissions at Nagano Plant and their indices (base year = 100)



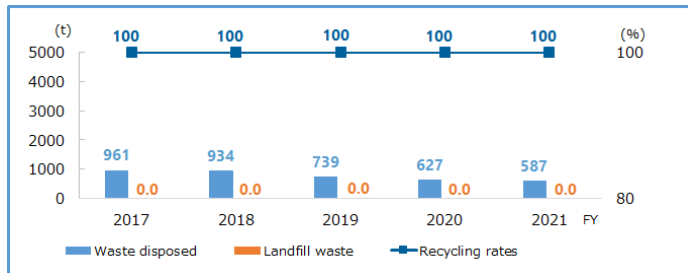
※Base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

※Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry).

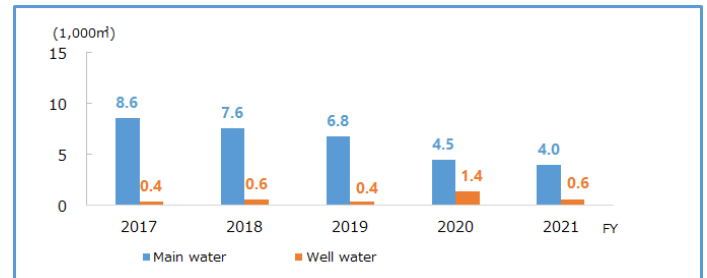
Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment).

### Effective use of resources / Waste reductions

#### Waste output



#### Water usage



## Measures for discharges into water, air and soil

### Data related to water contamination

Plant Name Drain Name	Item	Regulatory values	Voluntary standard values	FY2021 result		
				Average	Maximum	Minimum
Nagano Plant (Takamori)	pH	5.8~8.6	6.0~8.0	7.0	7.1	6.8
	BOD concentration (mg/l)	160	22 or less	1.3	1.3	1.2
	COD concentration (mg/l)	160	25 or less	2.5	2.5	2.4
	SS concentration (mg/l)	200	—	2.9	3.3	2.5
	Plant and animal oil concentration (mg/l)	5	—	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	5	—	Less than 0.5	Less than 0.5	Less than 0.5
Nagano Plant (Toyooka)	pH	5.8~8.6	6.0~8.0	7.0	7.4	6.5
	BOD concentration (mg/l)	160	22 or less	1.9	4.1	0.8
	COD concentration (mg/l)	160	25 or less	3.5	6.0	1.5
	SS concentration (mg/l)	200	—	7.0	16.0	1.1
	Plant and animal oil concentration (mg/l)	5	—	Less than 0.5	Less than 0.5	Less than 0.5
	Mineral oil concentration (mg/l)	5	—	Less than 0.5	Less than 0.5	Less than 0.5

※Not subject to legal regulation (Voluntary standard measurement, twice or more per year)

※Regulatory values are in compliance with the ordinances of Nagano Prefecture

※Takamori : Water discharged to Oshima River, Toyooka : Water discharged to Terasawa River

## Reporting on chemical substance management status (Pollutant Release and Transfer Register (PRTR) Law compliance)

The Nagano Plant verifies whether secondary materials and auxiliary materials contain chemical substances subject to Safety Data Sheet (SDS) requirements, and in the case of substances where the amounts handled exceed the thresholds specified by the PRTR Law, annual reports are submitted to the national (or prefectural) authorities and safety impact assessment is performed.

Regarding the handling of substances pursuant to the PRTR Law, please refer to

➤ [the Safety Evaluation Table of Domestic Production Bases.](#)



## Participation in the Tenryu River Environment Picnic (Cleanup)

The Tenryu River Environmental Picnic (garbage pickup), which we participate in every year, was postponed due to COVID-19.

## Yokohama Forever Forest Tree planting Activity

With the completion of the planting of 6,905 trees, exceeding the cumulative total number in the plan, the activities were concluded in stage VI of 2013.

Although the provision of seedlings outside the company was continued after that, the continued provision became difficult after the move to Toyooka, and the activities were concluded with the donation of 1,040 seedlings to local municipalities and residents in December 2016.



## Biodiversity conservation activities

As part of biodiversity conservation activities that were started from fiscal 2013, we have conducted monitoring surveys in the spring and fall of every year downstream in the Oshima River where rainwater is discharged from Takamori and near its junction with the Tenryu River, as well as downstream in the Terasawa River where rainwater is discharged from Takamori and along the agricultural-water runoff ditch located at Kono Hydrophilic Park.

Although these activities had to be suspended with the transfer of the plant from Takamori to Toyooka in FY2017, activities resumed in FY2021 with a regulating pond on the plant site being demarcated.



## Satoyama Conservation Activity

On September 7, 2015, thanks to assistance provided by Nagano Prefectural Government, we signed a "Forest Stewardship Agreement" with Toyooka Village and began to undertake satoyama (traditional community-managed forest) conservation work. From 2015 to 2016, three rounds of work were implemented; the work undertaken included undergrowth moving and improvement cutting.

Our efforts in these activities received recognition in the awarding of the Shimoina Forest Association Chairman's Prize in the Minami Shinshu Healthy Forests Awards in 2017.

FY2021 was postponed due to COVID-19.

June 10, 2022 Foster care activities will resume after 3 years.

## MD Squad activities

The MD team's activities included promotion of paperless office, 2S on OA servers, waste rag collection, stocking collection, 2S patrols, heat measures through green curtains, reduction of confidential document disposal costs by introducing shredders, reduction of purchase costs & waste by introducing rental items, review of outsourced cleaning details, review of purchased items, and energy saving activities. Reviewing the contents of outsourced cleaning, reviewing purchased goods, energy saving activities, etc.

In particular, for energy conservation, we have introduced equipment that can quantify the amount of compressed air leakage and have been working to improve air leaks from facilities.

In addition, we have achieved zero rag purchases through rag collection activities.



green curtain



Waste rag collection



## Fair Operating Practices

### Thorough statutory compliance

In fiscal year 2021, there were no legal violations or external complaints.

## Consumer Issues

### Internship

Due to COVID-19, this program was not implemented in FY2021.

# **Community Involvement and Development**

## **Donations to assist the local community**

Due to COVID-19, the event was cancelled.

Donations were made to the Red Feather Community Chest.

## **Employee Communication**

The annual labor-management sponsored events and family exchange events have all been cancelled for FY2021 due to COVID-19.

## **Blood donations**

June 15: 39 participants

November 12: 33 participants

# Safety Evaluation Table of Domestic Production Bases

## Safety evaluation of substances subject to PRTR

### How to approach the “Degree of Safety Evaluation”

While the PRTR Law requires reports of discharge amounts of chemical substances into the environment, the impact of chemical substances on the environment largely depends not only on the discharge amount but also on the degree of hazardousness. Therefore, it is necessary to take action based on comprehensive evaluation to reduce the risk that chemical substances pose to the environment, considering both the discharge amount and the hazardousness.

Accordingly, since 2010, with reference to the “Guidelines for Evaluation of Degree of Impact on Safety by Chemical Substances” issued by Kanagawa Prefecture, we have calculated the “translation discharge amount” obtained by multiplying the “discharge amount” of the individual substances to be reported under the PRTR Law by the “toxic coefficient” depending on the hazardousness published by Kanagawa Prefecture, and we have calculated the total discharge amount by adding them together. Then, we ranked the degree of impact on “human health” and on the “ecological system.” We clarified the direction of risk reduction by indicating the position of each business site with reference to “Evaluation Table of Degree of Impact on Safety.”

For example, the Hiratsuka Factory recorded a total translation discharge amount for human health of 5,382.931 tons and ranked II, while with a total translation discharge amount for the ecological system of 15.154 tons, it ranked 4.

Accordingly, the degree of impact on safety of the Hiratsuka Factory is indicated as “II-4.”

### Reasons for changes in FY 2021

Hiratsuka Factory, II-4 to III-4 The effects on human health improved.	The amount of No. 58 ethylene glycol monomethyl ether handled and discharge decreased.
Shinshiro Plant, V-4 to VII-5 The effects on human health and the ecosystem improved as well.	The amount of No. 333 Hydrazine and No. 154 Cyclohexylamine handled and discharged decreased.
Mishima Plant, V-4 to VI-5 The effects on human health and the ecosystem improved as well.	The amount of No. 411 Formaldehyde discharge decreased.
There were no changes in the ranks of Hiratsuka Factory, Shinshiro-Minami Plant, Mie Plant, Hamatite Plant, Ibaraki Plant, and Nagano Plant.	

### Explanation about degree of impact on safety

#### Toxicity ranking and toxicity factor

Rank	A	B	C	D
Toxicity factor	1000	100	10	1

## Ranking of effects on human health

Rank	Total converted emissions (Effects on human health)
I	10,000t or more
II	3,000t to less than 10,000t
III	1,000t to less than 3,000t
IV	300t to less than 1,000t
V	100t to less than 300t
VI	30t to less than 100t
VII	10t to less than 30t
VIII	Less than 10t

## Ranking of effects on the ecosystem

Rank	Total converted emissions (Effects on the ecosystem)
1	10,000t or more
2	1,000t to less than 10,000t
3	100t to less than 1,000t
4	10t to less than 100t
5	Less than 10t

## Changes in safety evaluation of each plant

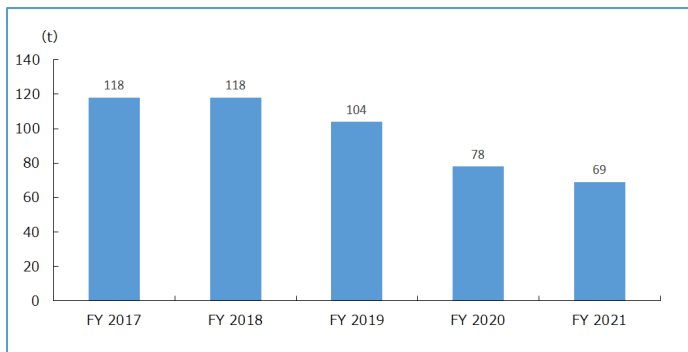
Plant Name	2017	2018	2019	2020	2021	Improvement or worsened points
Hiratsuka Factory	V-4	II-4	II-4	II-4	III-4	The effects on human health better, and the effects on the ecosystem were no change as compared with the previous year (FY 2020).
Adhesives and Sealants Plant	VI-5	VII-4	VII-5	VII-5	–	
Nagano Plant	VIII-5	VIII-5	VIII-5	VIII-5	VIII-5	There was no change from the previous year (FY 2020).
Ibaraki Plant	VII-5	VII-5	VI-5	VI-5	VI-5	There was no change from the previous year (FY 2020).
Shinshiro Plant	IV-4	IV-4	IV-4	V-4	VII-5	The effects on human health are better, and the ecosystem is also better compared to the previous year (FY2020).
Shinshiro-Minami Plant	V-5	V-5	V-5	V-5	V-5	There was no change from the previous year (FY 2020).
Mie Plant	VI-5	VI-5	VI-5	VI-5	VI-5	There was no change from the previous year (FY 2020).
Mishima Plant	IV-4	V-4	IV-4	V-4	VI-5	The effects on human health are better, and the ecosystem is also better compared to the previous year (FY2020).
Onomichi Plant	VII-5	VII-5	VIII-5	VII-5	VII-5	There was no change from the previous year (FY 2020).

Category	Effects on safety (effects on the ecosystem)						
	1	2	3	4	5		
Effects on safety (effects on human health)	Worse						
	I					Great effect on human health	
	II				Hiratsuka Factory (FY 2019)		
	III				Hiratsuka Factory	Moderate effect on human health	
	IV						
	V				Shinshiro Plant (FY 2020) Mishima Plant (FY 2020)	Shinshiro-Minami Plant Shinshiro-Minami Plant (FY 2020)	Small effect on human health
	VI					Mishima Plant Mie Plant Ibaraki Plant Ibaraki Plant (FY 2020)	
	VII					Shinshiro Plant Onomichi Plant Onimichi Plant (FY2020)	
VIII					Nagano Plant Nagano Plant (FY 2020)		
Better							
		Great effect on the ecosystem	Moderate effect on the ecosystem		Small effect on the ecosystem		

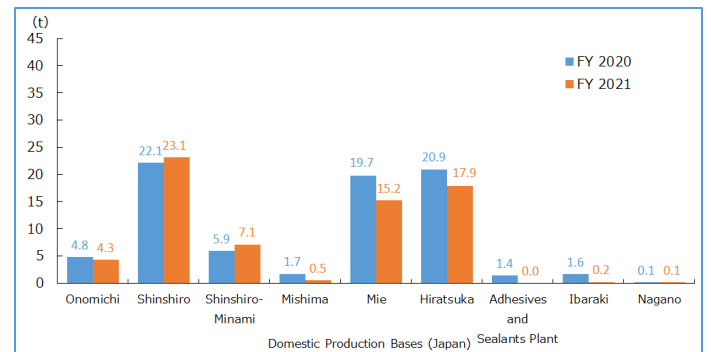
※As the Nagano Plants have no substances to be reported (less than 1 ton), their details are not attached.

※Each plant discloses information in accordance with the requirements of the law.

### Discharge and total transfer amounts of PRTR in domestic factories



### Discharge and total transfer amounts of PRTR in domestic factories (by location)



### Onomichi Plant

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting. A total volume of less than one ton is not.

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission	Transfer	Emission & Transfer (Combined)	Safety Evaluation: VII-5*1			
								Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	195.3736	0.0000	1.9605	1.9605	D	0.000	B	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	86.2320	0.0000	0.8653	0.8653	B	0.000	A	0.000
	155	N-(cyclohexylthio)phthalimide	17796-82-6	6.9258	0.0000	0.0695	0.0695	D	0.000	B	0.000
	189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	4979-32-2	1.4524	0.0000	0.0146	0.0146	D	0.000	B	0.000
	392	n-hexane	110-54-3	1.4490	1.2461	0.0000	1.2461	C	12.461	Not Reported	0.000
	258	1,3,5,7-tetraazatricyclo[3.3.1.1.3.7]decane; hexamethylenetetramine	100-97-0	1.5741	0.0000	0.0158	0.0158	C	0.000	D	0.000
	86	cresol	1319-77-3	1.0489	0.0000	0.0105	0.0105	B	0.000	C	0.000
Not Subject to reporting	132	cobalt and its compounds		0.8615	0.0000	0.0086	0.0086	A	0.000	Not Reported	0.000
	333	hydrazine	302-01-2	0.1165	0.0000	0.1165	0.1165	A	0.000	B	0.000
		<b>Total</b>		295.0338	1.2461	3.0614	4.3075	—	12.461	—	0.000

\*1: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

Shinshiro Plant

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting.  
A total volume of less than one ton is not.

Safety Evaluation: VII-5\*2

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission*1	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	777.5076	0.0000	15.6965	15.6965	D	0.000	B	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	236.7941	0.0000	4.2555	4.2555	B	0.000	A	0.000
	205	1,3-diphenylguanidine	102-06-7	130.9414	0.0000	0.0000	0.0000	A	0.000	C	0.000
	155	N-(cyclohexylthio)phthalimide	17796-82-6	34.0483	0.0000	0.3563	0.3563	C	0.000	D	0.000
	258	1,3,5,7-tetraazatricyclo[3.3.1.1 <sup>3,7</sup> ]decane; hexamethylenetetramine	100-97-0	33.9458	0.0000	0.2122	0.2122	D	0.000	B	0.000
	189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	4979-32-2	22.3379	0.0000	0.2140	0.2140	D	0.000	B	0.000
	132	cobalt and its compounds		7.8419	0.0000	0.1361	0.1361	A	0.000	Not Reported	0.000
	349	phenol	108-95-2	6.8545	0.0000	0.0000	0.0000	A	0.000	C	0.000
	86	cresol	1319-77-3	4.4951	0.0000	0.0689	0.0689	B	0.000	C	0.000
	392	n-hexane	110-54-3	1.4021	1.4021	0.0000	1.4021	C	14.021	Not Reported	0.000
Not Subject to reporting	80	xylene	1330-20-7	0.4142	0.4142	0.0000	0.4142	C	4.142	C	4.142
	411	formaldehyde	50-00-0	0.3255	0.0000	0.0055	0.0055	A	0.000	C	0.000
	438	methylnaphthalene	1321-94-4	0.3090	0.0015	0.0000	0.0015	A	1.547	C	0.015
	405	boron compounds		0.2143	0.0000	0.0713	0.0713	D	0.000	Not Reported	0.000
	154	cyclohexylamine	108-91-8	0.2085	0.0000	0.0000	0.0000	B	0.000	Not Reported	0.000
	53	ethylbenzene	100-41-4	0.1626	0.1626	0.0000	0.1626	C	1.626	C	1.626
	333	hydrazine	302-01-2	0.1279	0.0000	0.0000	0.0000	A	0.000	B	0.000
	296	1,2,4-trimethylbenzene	95-63-6	0.0739	0.0739	0.0000	0.0739	C	0.739	C	0.739
	20	2-aminoethanol	141-43-5	0.0700	0.0000	0.0000	0.0000	C	0.000	C	0.000
	305	lead compounds		0.0691	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000
	297	1,3,5-trimethylbenzene	108-67-8	0.0620	0.0620	0.0000	0.0620	C	0.620	C	0.620
	354	di-n-butyl phthalate	84-74-2	0.0203	0.0000	0.0000	0.0000	A	0.000	B	0.000
	453	molybdenum and its compounds		0.0149	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000
	368	4-tert-butylphenol	98-54-4	0.0146	0.0000	0.0000	0.0000	B	0.000	C	0.000
	1	zinc compounds (water-soluble)		0.0108	0.0000	0.0000	0.0000	D	0.000	Not Reported	0.000
	462	tri-n-butyl phosphate	126-73-8	0.0087	0.0000	0.0000	0.0000	A	0.000	C	0.000
	300	toluene		0.0014	0.0014	0.0000	0.0014	C	0.014	D	0.001
	207	2,6-di-tert-butyl-4-cresol		0.00080	0.0000	0.0000	0.0000	A	0.000	B	0.000
	125	chlorobenzene		0.00066	0.00066	0.0000	0.00066	B	0.066	B	0.066
	88	4-tert-butylphenol	98-54-4	0.00001	0.0000	0.0000	0.0000	B	0.000	B	0.000
		<b>Total</b>		1,258.2779	2.1183	21.0164	23.1348	—	22.774	—	7.209

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

# Shinshiro-Minami Plant

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting.  
A total volume of less than one ton is not.

								Safety Evaluation: V-5*2			
	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission*1	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	248.4241	0.0000	5.0098	5.0098	D	0.000	B	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	64.9915	0.0000	0.9005	0.9005	B	0.000	A	0.000
	205	1,3-diphenylguanidine	102-06-7	40.8228	0.0000	0.5199	0.5199	A	0.000	C	0.000
	438	methylnaphthalene	1321-94-4	38.1633	0.1908	0.0000	0.1908	A	190.817	C	1.908
	155	N-(cyclohexylthio)phthalimide	17796-82-6	14.1075	0.0000	0.1385	0.1385	D	0.000	B	0.000
	189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	4979-32-2	7.3018	0.0000	0.0784	0.0784	D	0.000	A	0.000
	132	cobalt and its compounds		2.9702	0.0000	0.0490	0.0490	A	0.000	B	0.000
	258	1,3,5,7-tetraazatricyclo[3.3.1.1.3.7]decane; hexamethylenetetramine	100-97-0	1.8576	0.0000	0.0677	0.0677	D	0.000	B	0.000
	86	cresol	1319-77-3	1.5022	0.0000	0.0248	0.0248	D	0.000	B	0.000
Not Subject to reporting	411	formaldehyde	50-00-0	0.0941	0.0000	0.0023	0.0023	A	0.000	C	0.000
	405	boron compounds		0.0813	0.0000	0.0257	0.0257	D	0.000	Not Reported	0.000
	392	n-hexane	110-54-3	0.0473	0.0473	0.0000	0.0473	C	0.473	Not Reported	0.000
	296	1,2,4-trimethylbenzene	95-63-6	0.0350	0.0350	0.0000	0.0350	C	0.350	C	0.350
	297	1,3,5-trimethylbenzene	108-67-8	0.0294	0.0294	0.0000	0.0294	C	0.294	C	0.294
	80	xylene	1330-20-7	0.0124	0.0124	0.0000	0.0124	C	0.124	C	0.124
	207	2,6-di-tert-butyl-4-cresol	128-37-0	0.0005	0.0000	0.0000	0.0000	A	0.000	B	0.000
	<b>Total</b>			420.4405	0.3149	6.8167	7.1316	—	192.057	—	2.676

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking



Mishima Plant

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting.  
A total volume of less than one ton is not.

Safety Evaluation: VI-5\*<sup>2</sup>

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission* <sup>1</sup>	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	402.4600	0.0000	0.1611	0.1611	D	0.000	B	0.000
	205	1,3-diphenylguanidine	102-06-7	88.3800	0.0000	0.0354	0.0354	A	0.000	C	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	71.7250	0.0000	0.0287	0.0287	B	0.000	A	0.000
	258	1,3,5,7-tetraaza-tricyclo[3.3.1.1 <sup>3,7</sup> ]decane; hexamethylenetetramine	100-97-0	16.1820	0.0000	0.0065	0.0065	D	0.000	B	0.000
	155	N-(cyclohexylthio)phthalimide	17796-82-6	10.8200	0.0000	0.0043	0.0043	D	0.000	B	0.000
	189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	4979-32-2	4.1005	0.0000	0.0016	0.0016	D	0.000	A	0.000
	349	phenol	108-95-2	3.6533	0.0000	0.0015	0.0015	A	0.000	C	0.000
	132	cobalt and its compounds		2.7351	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000
	409	sodium poly(oxyethylene) dodecyl ether sulfate	9004-82-4	1.1190	0.0000	0.0004	0.0004	C	0.000	C	0.000
	392	n-hexane	110-54-3	1.0102	0.0000	0.0000	0.0000	C	0.000	Not Reported	0.000
Not Subject to reporting	86	cresol	1319-77-3	0.8201	0.0000	0.0003	0.0003	D	0.000	B	0.000
	300	toluene	108-88-3	0.4013	0.0000	0.0000	0.0000	C	0.000	D	0.000
	20	2-aminoethanol	141-43-5	0.1958	0.1958	0.0000	0.1958	B	19.584	C	1.958
	296	1,2,4-trimethylbenzene	95-63-6	0.1811	0.0007	0.0000	0.0007	C	0.007	C	0.007
	53	ethylbenzene	100-41-4	0.1702	0.0001	0.0000	0.0001	C	0.001	C	0.001
	80	xylene	1330-20-7	0.1652	0.0001	0.0000	0.0001	C	0.001	C	0.001
	411	formaldehyde	50-00-0	0.1410	0.0000	0.0001	0.0001	A	0.000	C	0.000
	333	hydrazine	302-01-2	0.0608	0.0608	0.0000	0.0608	A	60.800	B	6.080
	297	1,3,5-trimethylbenzene	108-67-8	0.0458	0.000018	0.0000	0.0000	C	0.000	C	0.000
	453	molybdenum and its compounds	-	0.0320	0.000013	0.0000	0.0000	A	0.013	Not Reported	0.000
	400	benzene	71-43-2	0.0170	0.000007	0.0000	0.0000	A	0.007	C	0.000
	18	aniline	62-53-3	0.000025	0.000025	0.0000	0.0000	A	0.025	C	0.000
		<b>Total</b>		604.4154	0.2576	0.2399	0.4974	—	80.438	—	8.047

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

Mie Plant

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting. A total volume of less than one ton is not.

								Safety Evaluation: VI-5* <sup>2</sup>			
	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission* <sup>1</sup>	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	875.8900	0.0000	9.8995	9.8995	D	0.000	B	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	392.5500	0.0000	0.6834	0.6834	B	0.000	A	0.000
	189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	4979-32-2	84.3800	0.0000	0.4033	0.4033	D	0.000	B	0.000
	155	N-(cyclohexylthio)phthalimide	17796-82-6	64.5344	0.0000	0.2256	0.2256	D	0.000	B	0.000
	132	cobalt and its compounds		20.6298	0.0000	0.0270	0.0270	A	0.000	Not Reported	0.000
	205	1,3-diphenylguanidine	102-06-7	8.9400	0.0000	0.0020	0.0020	A	0.000	C	0.000
	392	n-hexane	110-54-3	3.6817	2.9131	0.0000	2.9131	C	29.131	Not Reported	0.000
	300	toluene	108-88-3	2.7010	0.6409	0.0000	0.6409	C	6.409	D	0.641
	296	1,2,4-trimethylbenzene	95-63-6	1.1583	0.0021	0.0000	0.0021	C	0.021	C	0.021
	80	xylene	1330-20-7	1.0759	0.1580	0.0000	0.1580	C	1.580	C	1.580
405	boron compounds		1.0364	0.0000	0.1528	0.1528	D	0.000	Not Reported	0.000	
Not Subject to reporting	86	cresol	1319-77-3	0.8240	0.0000	0.0193	0.0193	B	0.000	C	0.000
	20	2-aminoethanol	141-43-5	0.2666	0.0000	0.0000	0.0000	B	0.000	C	0.000
	53	ethylbenzene	100-41-4	0.2653	0.0654	0.0000	0.0654	C	0.654	C	0.654
	297	1,3,5-trimethylbenzene	108-67-8	0.1490	0.0000	0.0000	0.0000	C	0.000	C	0.000
	400	benzene	71-43-2	0.1397	0.0002	0.0000	0.0002	A	0.195	C	0.002
	411	formaldehyde	50-00-0	0.1147	0.0000	0.0000	0.0000	A	0.000	C	0.000
	412	manganese and its compounds		0.0605	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000
	60	ethylenediaminetetraacetic acid	60-00-4	0.0297	0.0297	0.0000	0.0297	A	29.700	C	0.297
	333	hydrazine	302-01-2	0.0162	0.0162	0.0000	0.0162	A	16.200	B	1.620
	453	molybdenum and its compounds		0.0115	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000
	10	acrolein	107-02-8	0.0111	0.0000	0.0000	0.0000	A	0.000	A	0.000
	264	2,3,5,6-tetrachloro-p-benzoquinone	118-75-2	0.0069	0.0000	0.0000	0.0000	A	0.000	C	0.000
	207	2,6-di-tert-butyl-4-cresol	128-37-0	0.0045	0.0000	0.0041	0.0041	A	0.000	B	0.000
	154	cyclohexylamine	108-91-8	0.0009	0.0000	0.0000	0.0000	B	0.000	Not Reported	0.000
	188	N,N-dicyclohexylamine	101-83-7	0.0009	0.0000	0.0000	0.0000	B	0.000	B	0.000
	83	cumene	98-82-8	0.0008	0.0000	0.0000	0.0000	B	0.000	C	0.000
	349	phenol	108-95-2	0.0005	0.0000	0.0000	0.0000	A	0.000	C	0.000
	404	pentachlorophenol	87-86-5	0.0002	0.0000	0.0000	0.0000	A	0.000	A	0.000
	18	aniline	62-53-3	0.00005	0.0000	0.0000	0.0000	A	0.000	A	0.000
	395	water-soluble salts of peroxodisulfuric acid		0.00003	0.0000	0.0000	0.0000	Not Reported	0.000	Not Reported	0.000
262	tetrachloroethylene	127-18-4	0.00002	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000	
413	phthalic anhydride	85-44-9	0.00002	0.0000	0.0000	0.0000	A	0.000	Not Reported	0.000	
88	chromium(VI) compounds		0.00001	0.0000	0.0000	0.0000	B	0.000	B	0.000	
		<b>Total</b>		1,458.4807	3.8256	11.4170	15.2425	—	83.890	—	4.815

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

Hiratsuka Factory

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting. A total volume of less than one ton is not.

Safety Evaluation: III-4\*2

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission*1	Transfer	Emission & Transfer (Combined)	Safety Evaluation: III-4*2			
								Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	190.82268	0.00000	4.76000	4.76000	D	0.000	B	0.000
	372	N-(tert-butyl)-2-benzothiazolesulfenamide	95-31-8	83.26122	0.00000	0.98673	0.98673	B	0.000	A	0.000
	155	N-(cyclohexylthio)phthalimide	17796-82-6	15.90300	0.00000	0.40833	0.40833	D	0.000	B	0.000
	31	antimony and its compounds		9.18746	0.00000	0.54904	0.54904	A	0.000	Not Reported	0.000
	460	tritoyl phosphate	1330-78-5	8.81000	0.00000	0.43956	0.43956	B	0.000	B	0.000
	205	1,3-diphenylguanidine	102-06-7	7.77400	0.00000	0.38747	0.38747	A	0.000	C	0.000
	352	diallyl phthalate	131-17-9	5.92600	0.00000	0.29567	0.29567	A	0.000	B	0.000
	58	ethylene glycol monomethyl ether	109-86-4	5.71900	1.05020	3.60920	4.65940	A	1,050.200	Not Reported	0.000
	300	toluene	108-88-3	5.18928	1.82099	0.44410	2.26509	B	182.099	C	18.210
	258	1,3,5,7-tetraazatricyclo[3.3.1.13.7]decane; hexamethylenetetramine	100-97-0	4.00565	0.00000	0.19985	0.19985	Not Reported	0.000	Not Reported	0.000
	30	n-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)		3.92886	0.00000	0.19602	0.19602	B	0.000	B	0.000
	80	xylene	1330-20-7	2.51132	0.35445	0.01560	0.37005	C	3.545	C	3.545
	268	tetramethylthiuram disulfide; thiram	137-26-8	2.28242	0.00000	0.11388	0.11388	A	0.000	A	0.000
	452	2-mercaptobenzothiazole	149-30-4	2.09570	0.00000	0.10456	0.10456	B	0.000	B	0.000
	132	cobalt and its compounds		2.02423	0.00000	0.06874	0.06874	A	0.000	Not Reported	0.000
	384	1-bromopropane	106-94-5	1.65825	0.00000	0.00000	0.00000	B	0.000	Not Reported	0.000
	349	phenol	108-95-2	1.22650	0.00000	0.06084	0.06084	A	0.000	C	0.000
	42	2-imidazolidinethione	96-45-7	1.18400	0.00000	0.05907	0.05907	B	0.000	Not Reported	0.000
Not Subject to reporting	392	n-hexane	110-54-3	0.99183	0.92983	0.06200	0.99183	C	9.298	Not Reported	0.000
	259	tetraethylthiuram disulfide; disulfiram	97-77-8	0.98352	0.00000	0.04907	0.04907	A	0.000	B	0.000
	305	lead compounds		0.94087	0.00000	0.04694	0.04694	A	0.000	Not Reported	0.000
	160	3,3'-dichloro-4,4'-diaminodiphenylmethane	101-14-4	0.82900	0.00000	0.04136	0.04136	A	0.000	B	0.000
	203	diphenylamine	122-39-4	0.63733	0.00000	0.06784	0.06784	B	0.000	B	0.000
	359	n-butyl-2,3-epoxypropyl ether	2426-08-6	0.59610	0.00000	0.02974	0.02974	B	0.000	Not Reported	0.000
	169	3-(3,4-dichlorophenyl)-1,1-dimethylurea; diuron; DCMU	330-54-1	0.49570	0.00000	0.09910	0.09910	B	0.000	A	0.000
	1	zinc compounds (water-soluble)		0.39858	0.00000	0.01989	0.01989	D	0.000	Not Reported	0.000
	330	bis(1-methyl-1-phenylethyl) peroxide	80-43-3	0.31440	0.00000	0.01569	0.01569	D	0.000	B	0.000
	127	chloroform	67-66-3	0.31090	0.01550	0.29540	0.31090	B	1.550	C	0.155
	411	formaldehyde	50-00-0	0.26771	0.00000	0.00509	0.00509	A	0.000	C	0.000
	447	methylenebis(4,1-cyclohexylene) diisocyanate	5124-30-1	0.26324	0.00000	0.00800	0.00800	A	0.000	C	0.000
	86	cresol	1319-77-3	0.17727	0.00000	0.00884	0.00884	A	0.000	C	0.000
	405	boron compounds		0.12691	0.00000	0.02268	0.02268	D	0.000	Not Reported	0.000
	53	ethylbenzene	100-41-4	0.11208	0.08178	0.00230	0.08408	C	0.818	C	0.818
	410	poly(oxyethylene) nonylphenyl ether	9016-45-9	0.07420	0.00000	0.00370	0.00370	C	0.000	B	0.000
	88	chromium(VI) compounds		0.07076	0.00000	0.06062	0.06062	A	0.000	B	0.000
	351	1,3-butadiene	106-99-0	0.03000	0.00000	0.03000	0.03000	A	0.000	Not Reported	0.000
	262	tetrachloroethylene	127-18-4	0.02560	0.00000	0.00128	0.00128	B	0.000	B	0.000
	181	dichlorobenzene	95-50-1106-46-7	0.02200	0.00000	0.02200	0.02200	B	0.000	B	0.000
	318	carbon disulfide	75-15-0	0.02200	0.00000	0.02200	0.02200	B	0.000	C	0.000
	13	acetonitrile	75-05-8	0.02196	0.00000	0.02196	0.02196	C	0.000	Not Reported	0.000
	458	tris(2-ethylhexyl) phosphate	78-42-2	0.02046	0.00000	0.02046	0.02046	A	0.000	C	0.000
	374	hydrogen fluoride and its water-soluble salts		0.02000	0.00000	0.02000	0.02000	D	0.000	Not Reported	0.000
	186	dichloromethane; methylene dichloride	75-09-2	0.00400	0.00000	0.00400	0.00400	B	0.000	C	0.000
	240	styrene	100-42-5	0.00400	0.00000	0.00400	0.00400	B	0.000	C	0.000
	36	isoprene	78-79-5	0.00300	0.00000	0.00300	0.00300	C	0.000	Not Reported	0.000
16	2,2'-azobisisobutyronitrile	78-67-1	0.00050	0.00000	0.00050	0.00050	A	0.000	C	0.000	
	<b>Total</b>			361.27344	4.25275	13.68613	17.93888	—	1,247.509	—	22.727

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

## Ibaraki Plant

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting.  
A total volume of less than one ton is not.

Safety Evaluation: VI-5\*<sup>2</sup>

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission* <sup>1</sup>	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Subject to reporting	438	methylnaphthalene	1321-94-4	9.2841	0.0005	0.0000	0.0005	Not Reported	0.000	Not Reported	0.000
Not Subject to reporting	300	toluene	108-88-3	0.4405	0.1840	0.0000	0.1840	B	18.400	C	1.840
	354	di-n-butyl phthalate	84-74-2	0.0228	0.0228	0.0000	0.0228	A	22.800	B	2.280
	453	molybdenum and its compounds	-	0.0041	0.0041	0.0000	0.0041	C	0.041	C	0.041
	80	xylene	1330-20-7	0.0013	0.0000	0.0000	0.0000	C	0.000	B	0.000
	392	n-hexane	110-54-3	0.0011	0.0000	0.0000	0.0000	C	0.000	Not Reported	0.000
	296	1,2,4-trimethylbenzene	95-63-6	0.0008	0.0000	0.0000	0.0000	C	0.000	C	0.000
	125	chlorobenzene	108-90-7	0.0004	0.0004	0.0000	0.0004	B	0.038	B	0.038
	53	ethylbenzene	100-41-4	0.0003	0.0003	0.0000	0.0003	C	0.003	C	0.003
	400	benzene	71-43-2	0.0002	0.0002	0.0000	0.0002	A	0.200	C	0.002
		<b>Total</b>		9.7557	0.2123	0.0000	0.2123	—	41.483	—	4.205

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking

## Nagano Plants

(Unit: tons/year)

PRTR Designated Class 1 Chemical Substances: A total volume (emissions volume + transfer volume) of one ton or more is subject to reporting.  
A total volume of less than one ton is not.

Safety Evaluation: VIII-5\*<sup>2</sup>

	Designated No.	Specified chemical substance	Cas No	Amount to treat	Emission* <sup>1</sup>	Transfer	Emission & Transfer (Combined)	Toxicity rank (effect on people)	Annual converted emissions (effect on people)	Toxicity rank (effect on ecosystem)	Annual converted emissions (effect on ecosystem)
Not Subject to reporting	374	hydrogen fluoride and its water-soluble salts		0.0578	0.0578	0.0000	0.0578	D	0.058	Not Reported	0.000
	392	n-hexane	110-54-3	0.0504	0.0020	0.0484	0.0504	C	0.020	Not Reported	0.000
	405	boron compounds		0.0354	0.0354	0.0000	0.0354	B	3.540	Not Reported	0.000
		<b>Total</b>		0.1436	0.0952	0.0484	0.1436	—	3.618	—	0.000

\*1: Emissions volume = atmosphere + public bodies of water + soil

\*2: Converted emissions volume is calculated by multiplication of the emissions volume by the toxicity ranking