EFFORTS REGARDING MANUFACTURING AND LOGISTICS

Energy-and Global-Warming-Related Issues

Mazda promotes the efficient use of energy while aiming to reduce CO_2 emissions in the areas of manufacturing and logistics.

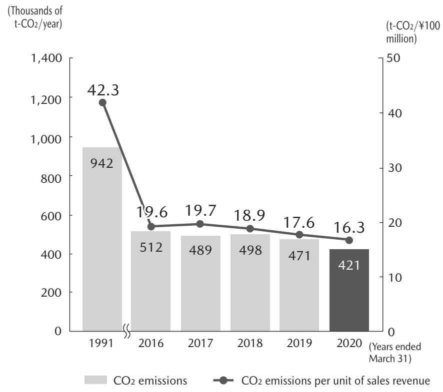
【Manufacturing】 Energy-Saving / Measures to Reduce CO_2 Emissions <FY March 2020 Results (compared with FY March 1991)> a b

- Total CO_2 emissions from Mazda's four principal domestic plants*[1] reduced by 56.6% compared with FY March 1991 (421 thousand t-CO_2)
- Emissions per unit of sales revenue reduced by 61.7% (16.3 t-CO_2/100 million yen)
  Production sites in Japan and abroad promote activities to improve the facility operation rate and shorten the cycle time, and take measures to cut losses at each step from production to consumption of energy.

Under *"Monotsukur*i Innovation," Mazda strives to reduce per-unit energy consumption. The "*Monotsukuri* Innovation" is the initiative to achieve a breakthrough in "sharing a completely new concept beyond the boundaries of models," in order to improve quality and brand value, as well as to increase profit margins, while flexibly responding to the requirements for the manufacture of several models and changes in production volume (see p. 123).

- Material: Reduced material weight by using thinner casted and forged parts, and reduced energy consumption by shortening the forging cycle time and downsizing the capacity of melting and heat treatment equipment.
- Processing and assembly: Evolved conventional flexible manufacturing lines to realize higher-efficiency, mixed flow production. Also pursued more efficient manufacturing by ensuring a smooth flow of lines and by consolidating and integrating lines.
- Press: Reduced the amount of scraps generated in manufacturing of press parts, and retrieved parts from scraps to reduce the amount of use of steel sheets. Also achieved multi-pressing, which performs molding of several parts using a single die, resulting in both integration of processes and reduction of energy consumption.
- Paint: Completed the introduction of the Aqua-Tech Paint System, a new water based painting technology realized through the integration of painting functions and high-efficient panting technologies, into the Ujina Plant No.2. Also introduced the Aqua-Tech Paint System to global production sites, resulting in reduced energy use and a substantial reduction of VOC (volatile organic compound) emissions.

a CO_2 Emissions from Mazda's Four Principal Domestic sites/CO_2 Emissions per Unit of Sales Revenue



∗ CO_2 emissions at Mazda's four principal domestic sites are calculated using the CO_2 coefficient for each year based on standards from the Japan Automobile Manufacturers Association Inc. (JAMA) (Commitment to a Low Carbon Society). Data for each fiscal year were recalculated according to the coefficient change of August 10, 2019. The power coefficient for FY March 2020 was undetermined as of July 10, 2020; the FY March 2019 power coefficient is used for FY March 2020.

b Energy Consumption Breakdown at Mazda's Four Principal Domestic Plants

Unit: (Thousands of GJ/year)

	FY March 1991	FY March 2016	FY March 2017	FY March 2018	FY March 2019	FY March 2020
Electricity	4,921	6,150	6,124	6,248	6,115	5,790
Industrial steam	0	1,359	1,236	1,253	1,165	1,143
Coal	4,967	0	0	0	0	0
Coke	766	171	168	171	218	165
Fuel oil A	596	19	15	14	24	22
Fuel oil B	11	0	0	0	0	0
Fuel oil C	1,168	6	7	6	5	3
Gasoline	193	64	52	54	59	55
Kerosene	101	11	11	15	5	2
Diesel	81	47	46	48	40	38
LPG	989	55	55	56	55	53
City gas	45	1,006	949	955	882	775
Total	13,838	8,888	8,663	8,820	8,568	8,048

∗ Amount of heat emission at Mazda's four principal domestic facilities is calculated using the CO_2 coefficient for each year based on standards from the Japan Automobile Manufacturers Association Inc. (JAMA) (Commitment to a Low Carbon Society). Past data was recalculated according to the change of the coefficient.

*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including non-manufacturing areas such as product development)

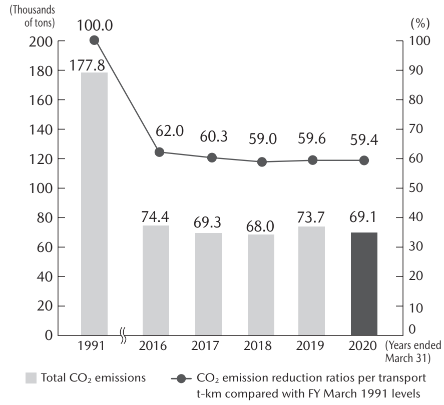
【Logistics】CO_2 Emissions during Product Shipment Reduced by 40.6% (Compared with FY March 1991 Levels) c

Mazda is working with logistics companies, dealerships, and other automakers throughout Japan to provide customers with the volume they require, with the precise timing they expect, while reducing CO_2 emissions during product shipment through highly efficient logistics across the entire supply chain.

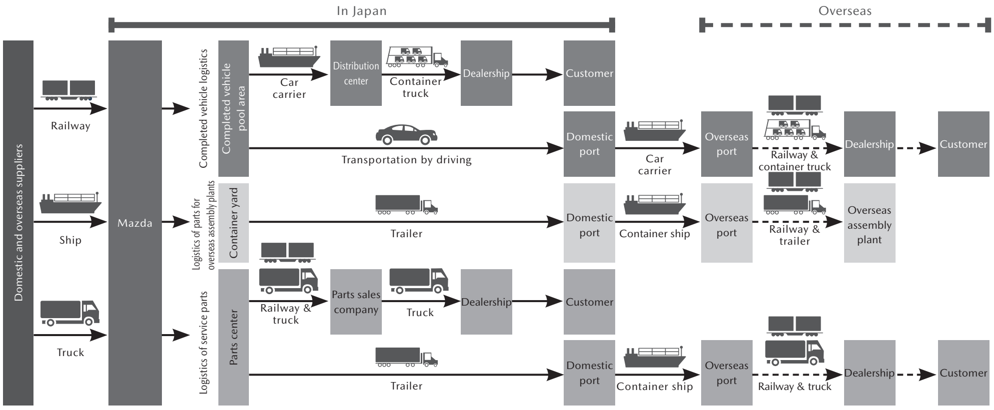
<FY March 2020 Results>

- Total domestic transportation volume was approximately 510 million ton-kilometers.
  This represents a 40.6% reduction in transportation CO_2 emissions per ton-kilometer compared with FY March 1991 levels, far exceeding the Company's target of 32% or more.

c CO_2 Emissions and Reductions for Logistics (in Japan)



■Range of the tracking capability for CO_2 emissions in the supply chain
(→ Current tracking line - - -→ Tracking line to be extended by 2030)



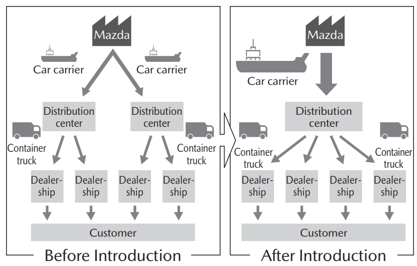
【Logistics】Realizing Logistics that Enables CO_2 Reduction in a Timely Manner

Mazda is taking the following measures to provide customers with the volume they require, with the precise timing they expect, while reducing CO_2 emissions. Efforts to focus on the following three pillars of logistics are being taken by visualizing in detail the hidden logistics issues in each process on a global level.

1. Hub-and-spoke system for transportation of completed vehicles and service parts[*1] d

- Reforming transportation by consolidating logistics centers for completed vehicles Mazda consolidated its logistics centers nationwide with the aim of combining delivery routes with low shipping volumes while ensuring timely shipments (and finished the consolidation in FY March 2012).
  Continuously reviewing the operation of car carriers (hereinafter referred to as "domestic vessels") according to their shipping volumes has enabled the Company to improve loading efficiency. To make more effective use of the domestic vessels on the return journey, collaborative transportation has also been promoted with other companies.
  In FY March 2019, Mazda reduced CO_2 emissions by increasing the loading efficiency of domestic vessels, and promoted the loading of completed vehicles into ships as directly as possible from their manufacturing sites, thereby succeeding in curbing around 15 tons of CO_2 emissions.
  In FY March 2020, the Company continued the same activities as those done in the previous fiscal year, thereby succeeding in curbing around 14 tons of CO_2 emissions. With regard to car carriers for transporting vehicles overseas, Mazda began to deliberate with a shipping company as to using LNG carriers, which emit less CO_2.

d Hub-and-Spoke System



*1 In the "hub-and-spoke" system, distribution centers around the country (hubs) act as bases for delivering completed vehicles to dealerships (spokes). In transporting service parts, parts suppliers serve as the hubs and vehicle dealerships the spokes.

- Improving the ratio of modal shift for the transportation of service parts

Mazda is striving to improve the rate of modal shift regarding the transportation of service parts.
The Company has also used large returnable containers, originally introduced to transport parts overseas, for domestic transportation to improve the loading efficiency of JR containers, thereby reducing CO_2 emissions. In FY March 2019, Mazda provisionally transported service parts by trucks instead of trains until the restoration of the railway lines, which were damaged by the heavy rain in July 2018. Owing to this change, the rate of transportation by railway decreased to 25% from 45% in FY March 2018.
In FY March 2020, Mazda endeavored to restore its railway transportation rate to the level before the heavy rain in July 2018. As a result, the rate was improved to 31%, reducing CO_2 emissions by around 275 tons.

2. "Straightening" of logistics network e

- Straight logistics without distribution centers (Vanning at plant, packaging at plant)

Mazda is working to enlarge the scope of straight logistics—i.e., after the manufacture of parts to be exported to overseas assembly plants is completed, they are packaged and loaded into containers at the same location without the need for shipment between production locations and distribution centers. Now this straight logistics system has been expanded to cover engines, transmissions and auto body parts produced at the Hiroshima Plant and the Hofu Plant. In FY March 2020, for some parts that were manufactured at a supplier's plant and destined for the Mexico plant, the Company ceased transporting these parts to Hiroshima by packaging and loading them into containers at the supplier's plant or at a place near the supplier. This enabled Mazda to reduce CO_2 emissions from transportation by around 15 tons.

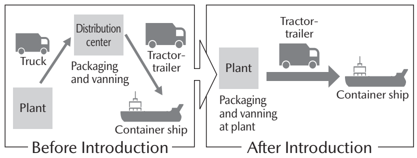
- Reducing the transportation distance for procured parts for overseas production

Previously, the parts procured in Asia to be used for overseas production were transported via Japan to the Mexico plant. In July 2016, this was changed to direct transportation, so that now these parts are transported from existing distribution centers in Thailand and China, leading to a reduced transportation distance.
In Japan, Mazda started to land parts imported from overseas at the ports close to production sites, in order to reduce the transportation distance between the Hiroshima Plant and Hofu Plant. In FY March 2020, by applying this measure to a broader range of parts, the Company further reduced CO_2 emissions by around 7 tons.

- Reducing the transportation distance for repair parts

When the Mexico plant started to run, repair parts were transported via North America to Europe, since their transpiration volume was small. Four years after the plant's startup, however, the volume was on the rise. For this reason, the shipping method was changed to direct transportation to Europe. By reducing the transportation distance through straight logistics, Mazda succeeded in reducing around 1,400 tons of CO_2 emissions.
In FY March 2020, the Company set up a distribution center in Mexico as a result of drastic review in order to establish a global supply system to transport repair parts directly from Mexico to each country. Through this initiative, Mazda achieved a CO_2 emissions reduction of around 2,800 tons.

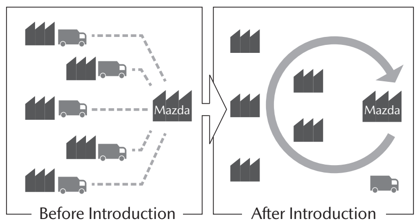
e Logistics without Distribution Centers (Vanning at plant)



3. Continuous improvement of transportation efficiency for procured parts f

For domestically produced parts, deployment of the Milk-Run system[*1] was completed throughout Japan by FY March 2008. Today, Mazda is introducing the same system in overseas production sites, with deployment in the Mexico plant completed in FY March 2014, and in the transmission plant in Thailand completed in FY March 2016, aiming to reduce CO_2 emissions by further promoting efficiency in the purchasing and logistics processes across the entire supply chain.
In FY March 2019, the means of transporting procured parts was provisionally changed from trains to trucks until the restoration of the railway lines, which were damaged by the heavy rain in July 2018. Since truckload transportation is considered to produce higher CO_2 emissions than railway transportation, Mazda saw an increase of around 2,000 tons in CO_2 emissions from the previous year. The Company is continuing its initiatives to optimize its packaging volume for purchasing parts, reflecting the logistics needs at the beginning of the product development process, so as to further improve the load efficiency of trucks and reduce the number of trucks required.
In Japan, Mazda introduced the Cloud-based Transportation/Delivery Progress Management Service for Logistics Operators[*2] in 2016. This service has been proven effective in reducing delivery time and costs and improving the quality of transportation, as well as in mitigating the burden on drivers, easing traffic congestion, and reducing CO_2 emissions through efficient transportation. The Company plans to apply this service to 600 vehicles in five years after its launch. In FY March 2020, the number of vehicles covered by this service increased to 579.

f Milk-Run System



*1 A method in which a single truck visits multiple suppliers to collect supplies. Named after truck routes in rural areas, which picked up milk from each farm.
*2 The Cloud-based Transportation/Delivery Progress Management Service for Logistics Operators, developed by DOCOMO Systems, Inc.

Promoting Resource Recycling

Mazda builds resource-saving initiatives into every phase of the life cycle of its vehicles, based on the three Rs: reduce, reuse, and recycle. The Company implements thorough recycling and waste-reduction initiatives in the areas of manufacturing and logistics as well, in order to ensure that limited resources are used effectively.

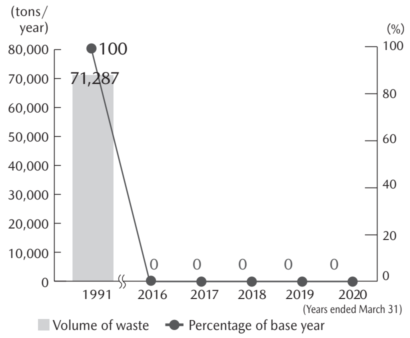
【Manufacturing】Maintaining the Status of Zero Landfill Waste and Promoting the Reduction of Waste g h

To reduce landfill waste at its four principal domestic facilities*1 to zero, Mazda is promoting reductions in the volume of manufacturing by-products and waste, more rigorous sorting of waste, and recycling. As a result, the Company has achieved zero landfill waste, and has maintained this status from FY March 2009 to FY March 2020. The Company has also achieved material recycling, to ensure that packaging materials used in the vehicle assembly process can be reused as raw materials, by more strictly sorting these packaging materials by ingredient and quality. The amount of waste in FY March 2020 was reduced by 83% compared with FY March 1991 levels.

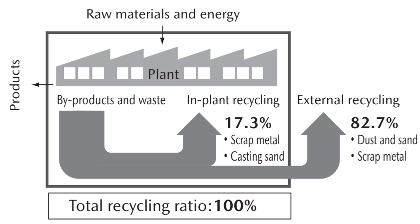
【Logistics】Reducing Volume of Packaging and Wrapping Materials i

Mazda is moving forward with efforts centering on the “three Rs of Mazda logistics” to cut down on resources used for packaging and wrapping. The target for packaging and wrapping materials was a reduction in volume of 50.0% or more from FY March 1991 levels; in FY March 2020, a 56.9%*2 reduction was achieved. Since FY March 2013, Mazda has been continuing activities to reflect logistics needs at the beginning of product development, so as to optimize parts specifications and structures, by considering efficient logistics in the development stage of work processes, from design to production and shipment.
In FY March 2017, departments in the five areas—development, production, procurement (purchasing), logistics and quality—closely worked together to achieve the optimization of parts procurement and vehicle manufacturing, from the stage of product development, and to establish strong cooperation with the supply chain. These efforts resulted in reduced volumes of packaging and wrapping materials, and an increased packaging filling rate.
In FY March 2018, Mazda continued integrated efforts among departments in relevant areas to optimize the specifications and structures of the parts for the next models. And for some parts, the Company enabled containers that are used to hold double the previous volume of parts. In FY March 2020 as well, these departments worked in close collaboration to improve the packaging filling rate for some parts, and to reduce the volumes of their packaging and wrapping materials. Mazda will continue promoting and expanding these activities that involve efforts in different areas, so as to reduce the consumption of materials.
In the area of repair parts for overseas, the Company continues to expand the application of large-size returnable containers, aiming at increasing the container filling rate. By utilizing these containers, Mazda succeeded in reducing the use of packaging and wrapping materials by about 2,400 tons in FY March 2019 and by about 2,200 tons in FY March 2020.
As for parts to be exported to overseas assembly plants, in 2015 the Company started to use the same returnable containers to transport parts from the supplier to the transmission plant in Thailand, where these parts are assembled, so as to eliminate the need for repackaging these parts into cardboard boxes at a distribution center. This method enabled Mazda to cut down around 900 tons of packaging and wrapping materials in FY March 2020. The Company is considering introducing this method at the new plant in North America that is due to begin operation in the future. It is expected that this will produce a significant effect in reducing the use of packaging and wrapping materials since the number of parts to be delivered to this U.S. complete vehicle assembly plant will be much larger than that to the transmission plant.

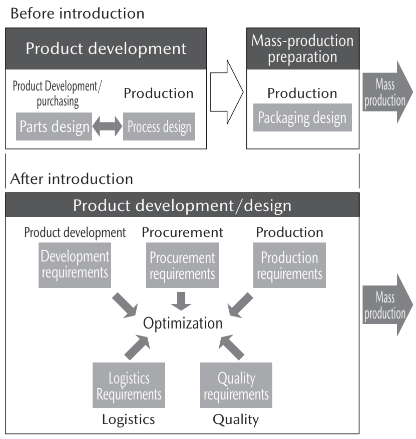
g Changes in the Amount of Landfill Waste



h FY March 2020 Recycling of Manufacturing Byproducts and Waste in the Manufacturing Areas



i Activities Image



*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including non-manufacturing areas such as product development)
*2 Forecasted reduction rate compared with measures similar to those performed in FY March 1991.

Cleaner Emissions

To preserve water and air quality, Mazda has specified voluntary emission standards stricter than the legal requirements and is ensuring appropriately low emissions of pollutants. In the area of manufacturing, the Company is engaged in a range of initiatives to eliminate or reduce chemical substances that damage the environment.

【Manufacturing】Clean Water Consumption at Mazda's Four Principal Domestic Sites*1 Reduced by 38.0% Compared with FY March 2014 Levels

j k

With the exception of its Miyoshi Plant, nearly all the water Mazda uses in production processes at the plants and offices in Japan is water for industrial use. The Company does not use subsurface water, as this may cause ground subsidence. Mazda also makes effective use of water by collecting and storing rainwater for use in the Miyoshi Plant. Furthermore, the Company is committed to saving clean water consumption at plants and offices.

In FY March 2020, Mazda reduced wasteful water consumption by such means as optimizing hand wash faucets and controlling air conditioning systems to maintain the proper humidity levels. The Company also ensures wastewater cleanliness by properly treating water used for industrial processes, human hygiene, and other purposes.

【Manufacturing】Air Pollution Prevention: Actively Adopting Fuels that Reduce Environmental Burdens

Mazda is continuing efforts to reduce the emission of sulfur oxides (SOx), nitrogen oxides (NOx), dust and soot, fine particles, vapors, and volatile organic compounds (VOCs). In addition, Mazda is shifting the use of fuel oil to that of city gas and makes other efforts to actively adopt materials that reduce the environmental burden.

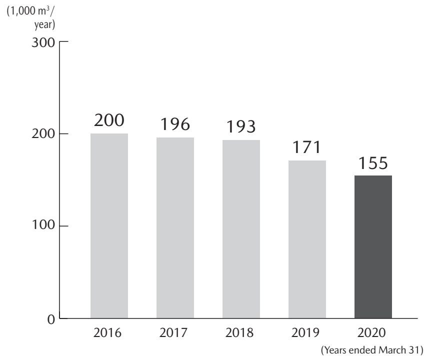
VOC Reductions: Body-Painting Lines

In FY March 2020, Mazda made steady progress toward achieving the target of reducing VOC emissions from vehicle body paint in body-painting lines to 20.0 g/m² or less. The target was achieved as a result of various measures. Such measures include the Three Layer Wet Paint System introduced as the standard process in all plants in Japan and major plants overseas, the Aqua-Tech Paint System (see p. 70) that delivers world-leading environmental performance, a low-VOC paint that the Company developed and introduced, and improved efficiency in thinner recovery in cleaning operations.

【Manufacturing】Reducing Emissions of PRTR-Listed Substances

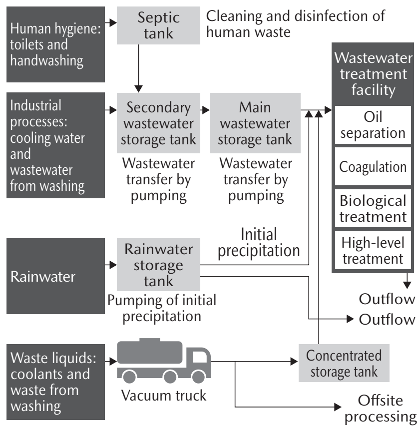
With various efforts, such as the additional introduction of the Aqua-Tech Paint System into the painting process and improvements to the efficiency of thinner recovery for cleaning operation, in FY March 2020 the amounts of substances that are designated under the PRTR Law*2 released into the water system and the atmosphere decreased by 73% from FY March 1999 levels to 751 tons. Mazda will continue working to reduce emissions of PRTR-designated substances.

j Clean Water Consumption at Four Principal Domestic Sites



＊The figures of the amount of clean water consumption at four principal domestic sites in FY March 2020 have been verified by a third party (see p. 133).

k Overview of Wastewater Treatment System (Hiroshima Plant)



*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including non-manufacturing areas such as product development)
However, Mazda Hospital, dormitories and catering facilities are excluded.

*2 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. PRTR: Pollutant Release and Transfer Register

FY March 2020 Data on Water and Atmosphere

Water Pollutants

Wastewater Drainage Destination: Enko River and Kaita Bay

Site	Water Pollutants	Unit	Regulation	Actual		
				Max.	Min.	Avg.
Hiroshima Plant	pH (freshwater)	—	5.8〜8.6	7.4	6.2	6.8
	pH (seawater)	—	5.5〜9.0	7.5	6.8	7.1
	BOD	mg／L	160	6.1	ND	<2
	COD	mg／L	20	13	1.7	5
	SS	mg／L	200	20	ND	<5.2
	Oil	mg／L	5	ND	ND	ND
	Fluorine (freshwater)	mg／L	8	0.2	ND	<0.13
	Fluorine (seawater)	mg／L	15	8	0.1	3.3
	Copper	mg／L	3	0.02	ND	<0.01
	Zinc	mg／L	2	0.58	0.02	0.16
	Soluble manganese	mg／L	10	0.7	ND	<0.2
	Chromium	mg／L	120	10	0.7	5
	Total nitrogen	mg／L	16	3.9	ND	<0.65
	Total phosphorus	colonies/cm³	3,000	420	ND	<61
	Coliform groups	mg／L	10	0.4	ND	<0.2
	Boron (freshwater)	mg／L	230	3.2	0.2	17
	Boron (seawater) Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg／L	100	6.8	0.7	3.1

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, soluble iron, chromium and boron.

Wastewater Drainage Destination: Basen River

Site	Water Pollutants	Unit	Regulation	Actual		
				Max.	Min.	Avg.
Miyoshi Plant	pH	—	5.8〜8.6	7.8	7.2	7.5
	BOD	mg／L	90	3.4	ND	<1.5
	SS	mg／L	90	12	3	5.6
	Oil	mg／L	5	0.8	ND	<0.6
	Fluorine	mg／L	8	0.1	0.1	0.1
	Soluble manganese	mg／L	10	0.2	ND	<0.1
	Total nitrogen	mg／L	120	4.1	4.1	4.1
	Total phosphorus	mg／L	16	0.02	0.02	0.02
	Coliform groups	colonies/cm³	3,000	10	ND	<6
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg／L	100	2.9	2.9	2.9

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, soluble iron, chromium and soluble manganese.

Wastewater Drainage Destination: Oumi Bay

Site	Water Pollutants	Unit	Regulation	Actual		
				Max.	Min.	Avg.
Nishinoura District, Hofu Plant	pH	—	5.0〜9.0	7.2	6.3	6.9
	COD	mg／L	50	11.1	2.3	7.9
	SS	mg／L	40	2.5	2.0	2.3
	Oil	mg／L	2	ND	ND	ND
	Zinc	mg／L	2	0.68	0.2	0.4
	Total nitrogen	mg／L	120	11.1	0.8	3.6
	Total phosphorus	mg／L	16	4.1	0.1	2.4
	Coliform groups	colonies/cm³	3,000	44	21	33
	Boron	mg／L	230	2.3	1	2
	Fluorine	mg／L	15	6.3	3.2	4.8
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg／L	100	7.1	1.5	4.3

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, soluble iron, chromium and soluble manganese.

Wastewater Drainage Destination: Oumi Bay

Site	Water Pollutants	Unit	Regulation	Actual		
				Max.	Min.	Avg.
Nakanoseki District, Hofu Plant	pH	—	5.0〜9.0	7.6	6.5	7.3
	COD	mg／L	50	5.2	3.4	5.5
	SS	mg／L	40	3.6	ND	<1.4
	Oil	mg／L	2	ND	ND	ND
	Zinc	mg／L	2	0.2	0.16	0.18
	Soluble iron	mg／L	3	0.1	ND	<0.1
	Total nitrogen	mg／L	120	11.7	2.0	7.1
	Total phosphorus	mg／L	16	1.5	0.02	0.9
	Coliform groups	colonies/cm³	3,000	140	9	75
	Boron	mg／L	230	ND	ND	ND
	Fluorine	mg／L	15	0.13	ND	<0.07
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg／L	100	6.3	2.8	4.6

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, soluble iron, chromium and soluble manganese.

Atmospheric Pollutants

Site	Atmospheric Pollutants		Unit	Regulation	Actual (Max.)
Hiroshima Plant	NOx	Boilers	ppm	150	53
		Drying ovens	ppm	250	74
				230	56
		Melting furnaces	ppm	180	53
		Diesel engines	ppm	950	640
		Heating furnaces	ppm	200	62
				180	25
				150	96
	Dust	Boilers	g／m³N	0.25	0.0013
				0.1	0.005
		Drying ovens	g／m³N	0.4	0.0017
				0.35	<0.003
				0.2	0.0044
				0.15	0.091
		Melting furnaces	g／m³N	0.4	0.0065
				0.20	0.12
				0.10	0.0017
		Diesel engines	g／m³N	0.10	0.0017
		Heating furnaces	g／m³N	0.4	0.0036
				0.25	0.0025
				0.20	0.012
	SOx	K-value regulation	—	7	1.66
	VOC	Painting facilities	ppm	700	325
		Washing facilities	ppm	400	72
Miyoshi Plant	NOx	Boilers	ppm	250	160
		Diesel engines	ppm	950	690
	Dust	Boilers	g／m³N	0.30	0.0033
		Diesel engines	g／m³N	0.10	0.071
Nishinoura District, Hofu Plant	NOx	Boilers	ppm	150	100
				130	100
		Drying ovens	ppm	230	42
	Dust	Boilers	g／m³N	0.10	0.003
		Drying ovens	g／m³N	0.35	0.003
				0.30	0.003
				0.20	0.005
	SOx	K-value regulation	—	4.5	0.002
		Total pollutant load control	m³N／h	20.56	0.013
	VOC	Painting facilities	ppm	700	310
Nakanoseki District, Hofu Plant	NOx	Melting furnaces	ppm	180	35
	Dust	Heating furnaces	g／m³N	0.25	0.002
				0.20	0.002
		Melting furnaces	g／m³N	0.20	0.016
	SOx	K-value regulation	—	4.5	0.08
		Total pollutant load control	m³N／h	8.37	0.001

Volume of PRTR-designated Pollutants Emitted and Transferred in FY March 2020

(Items marked with an asterisk (*) are Class 1 designated chemical substances of which 500 kg/year or more are handled.)

Hiroshima Plant

Unit: (kg/year)

Substance No.	Substance group	Amount handled	Air	Water	Soil	Volume emitted	Amount consumed	Amount disposed	Amount transferred: Waste products	Amount recycled
1	Water-soluble zinc compounds	27,570	0	441	0	441	24,096	3,033	0	0
53	Ethyl benzene	95,010	26,058	0	0	26,058	34,196	26,145	0	8,611
80	Xylene	401,241	167,064	0	0	167,064	142,709	68,925	0	22,543
87	Chromium and trivalent chromium compounds	30,404	0	0	0	0	29,885	0	519	0
88*	Hexavalent chromium compounds	1,266	0	0	0	0	747	519	0	0
258	1,3,5,7-tetraazetoricyclo [$3.3.1.1^{3,7}$] decane	2,639	0	0	0	0	0	2,639	0	0
277	Triethylamine	116,558	699	0	0	699	0	115,859	0	0
296	1,2,4-trimethylbenzene	139,532	11,401	0	0	11,401	88,985	39,146	0	0
297	1,3,5-trimethylbenzene	31,052	15,836	0	0	15,836	1,806	12,648	0	762
300	Toluene	639,252	112,520	0	0	112,520	299,533	186,643	0	40,556
309*	Nickel compounds	4,936	0	592	0	592	1,703	0	2,641	0
349	Phenol	23,524	1	1	0	2	0	23,522	0	0
355	Bis (2-ethylhexyl) phthalate	1,743	0	0	0	0	1,691	0	52	0
374	Hydrogen fluoride and its water-soluble salts	3,394	0	543	0	543	0	2,851	0	0
392	n-Hexane	113,773	285	0	0	285	97,087	16,401	0	0
400*	Benzene	22,495	28	0	0	28	17,561	4,906	0	0
411*	Formaldehyde	1,888	644	0	0	644	0	1,244	0	0
412	Manganese and its compounds	40,610	0	376	0	376	38,028	0	2,146	60
438	Methylnaphthalene	4,400	22	0	0	22	0	4,378	0	0
448	Diisocyanate (methylene-bis [4,1-phenylene])	167,738	0	0	0	0	0	167,738	0	0
453	Molybdenum and its compounds	1,200	0	0	0	0	850	0	70	280
302	Naphthalene	9,631	48	0	0	48	0	9,583	0	0
	Total	1,879,856	334,606	1,953	0	336,559	778,877	686,180	5,428	72,812

Miyoshi Plant

Substance No.	Substance group	Amount handled	Air	Water	Soil	Volume emitted	Amount consumed	Amount disposed	Amount transferred: Waste products	Amount recycled
53	Ethyl benzene	2,400	0	0	0	0	0	2,400	0	0
80	Xylene	10,180	1	0	0	1	0	10,179	0	0
296	1,2,4-trimethylbenzene	6,611	1	0	0	1	0	6,610	0	0
300	Toluene	29,097	10	0	0	10	0	29,087	0	0
392	n-Hexane	4,400	11	0	0	11	0	4,389	0	0
400*	Benzene	1,062	1	0	0	1	0	1,061	0	0
438	Methylnaphthalene	3,606	18	0	0	18	0	3,588	0	0
	Total	57,356	42	0	0	42	0	57,314	0	0

Nishinoura District, Hofu Plant

Substance No.	Substance group	Amount handled	Air	Water	Soil	Volume emitted	Amount consumed	Amount disposed	Amount transferred: Waste products	Amount recycled
1	Water-soluble zinc compounds	15,865	0	254	0	254	13,866	1,745	0	0
53	Ethyl benzene	117,063	74,918	0	0	74,918	28,278	13,867	0	0
80	Xylene	229,669	72,417	0	0	72,417	118,011	17,268	0	21,973
296	1,2,4-trimethylbenzene	122,474	24,598	0	0	24,598	73,581	3,234	0	21,061
297	1,3,5-trimethylbenzene	23,727	10,986	0	0	10,986	1,482	3,455	0	7,804
300	Toluene	509,696	230,450	0	0	230,450	247,590	24,094	0	7,562
309*	Nickel compounds	3,109	0	373	0	373	1,073	0	1,663	0
392	n-Hexane	81,589	205	0	0	205	80,317	1,067	0	0
400*	Benzene	14,733	18	0	0	18	14,524	191	0	0
412	Manganese and its compounds	4,168	0	229	0	229	2,617	0	1,310	12
	Total	1,122,093	413,592	856	0	414,448	581,339	64,921	2,973	58,412

Nakanoseki District, Hofu Plant

(No applicable chemical substances subject to reporting. (The volume of the PRTR-designated groups' substances handled is less than the designated volume subject to reporting.)

Company Total

Substance No.	Substance group	Amount handled	Air	Water	Soil	Volume emitted	Amount consumed	Amount disposed	Amount transferred: Waste products	Amount recycled
	Total	3,079,019	748,247	2,809	0	751,056	1,360,216	828,122	8,401	131,224