

Data collection

E: Environment (Daiseki)

▼ Results of ISO14001 internal audits

As of July 2023

	FY2019	FY2020	FY2021	FY2022	FY2023
Internal audits	1	1	1	1	1
Works audited	6	6	6	6	6
Minor nonconformities	1	2	3	3	0
Internal auditors*1	65	74	82	86	96
Internal auditors*2	38	45	50	54	62

*1 Cumulative number of auditors taking internal courses

*2 Cumulative number of people taking two-day external courses to train internal auditors

▼ Results of ISO14001 outside review

(cases)

	FY2019	FY2020	FY2021	FY2022	FY2023
Items for improvement	0	0	0	0	0

▼ Complaints about odor/dust

(cases)

	FY2019	FY2020	FY2021	FY2022	FY2023
Complaints	0	0	0	1	1

▼ Data on energy usage and CO₂ emissions (FY2023)

Describes usage of various fuels and electricity at each works and the CO₂ emissions generated in conjunction with it

Works	City gas usage (1,000 m ³)	Propane gas usage		Light oil usage (kL)	Gasoline usage (kL)	Kerosene usage (kL)	Fuel oil usage (kL)	Heavy machinery fuel usage (kL)	Electricity usage*3 (MWh)	Renewable electricity usage (MWh)	CO ₂ emissions (t- CO ₂)
		(1,000 m ³)	(t)								
Nagoya Works	1,001	0.5	302	812	51	—	1,309*4	55	5,414	2,628	11,516
Hokuriku Works	—	0.3	0	771	34	2	279	—	2,086	1,012	3,849
Kansai Works	256	<0.1	—	597	38	0.2	—	12	2,998	1,455	3,163
Kyushu Works	<0.1	0.4	—	772	28	2	236	48	329	1,661	2,942
Kanto Works	205	0.4	—	861	57	210	—	—	2,553	1,240	4,506
Chiba Works	—	<0.1	—	149	9	13	—	9	9	139	460

*3 Electricity usage from non-renewable sources

*4 The fuel oil used at the Nagoya Works is recycled fuel oil manufactured within the works (equivalent to fuel oil B)

▼ Water quality data (FY2023)

Works	pH		BOD (mg/L)		SS (mg/L)		n-hex (mg/L)	
	Standard value	Mean	Standard value	Mean	Standard value	Mean	Standard value	Mean
Nagoya Works	5.0<, <9.0	8.2	160 or less	2.6	200 or less	17	5.0 or less	1
Hokuriku Works	5.8<, <8.6	7.6	(daily mean) 30 or less (maximum) 40 or less	2.8	(daily mean) 70 or less (maximum) 90 or less	14	5.0 or less	<0.1
Kansai Works	5.0<, <9.0	7.6	600 or less	45	600 or less	74	5.0 or less	<1
Kyushu Works	5.0<, <9.0	7.5	600 or less	13	600 or less	30	5.0 or less	<1
Kanto Works	5.7<, <8.7	7.8	300 or less	28	300 or less	21	5.0 or less	<0.5
Chiba Works*5	5.8<, <8.6	—	20 or less	—	40 or less	—	ss; animal & vegetable oil: 5 or less	—

*5 As the Chiba Works only discharges rainwater and the discharged amount is less than 30 m³ and is not subject to Chiba Prefecture's discharged water standards, its water quality has not been measured.

The standard values applying to works discharging 30 m³/day or greater in Chiba Prefecture are given as reference values.

(For items other than pH, the discharge standard values for class 1 catchments in Chiba prefecture, which applies the Chiba Works, are given.)

▼ Annual discharge to public catchments and mean concentration of effluent (Daiseki Hokuriku Works)

Target substance	Annual discharge (kg)					FY2023 mean effluent concentration	
	FY2019	FY2020	FY2021	FY2022	FY2023	Discharge standard (mg/L)	Mean concentration (mg/L)
Copper	72	140	140	71	110	3	0.4
Zinc	65	76	35	34	70	2	0.3
Manganese	34	52	30	4	29	10	0.1
Fluorine	1,148	1,200	790	530	690	8	2.8
Boron	971	510	440	370	450	10	1.8
Total chromium	0.6	0	1.3	0.7	0	2	<0.025
Hexavalent chromium	0	0	0.9	0	0	0.5	<0.025
1,4-dioxane	5.6	1.7	1.6	1.8	2.2	0.5	0.01
Benzene	0	0	0	0	0	0.1	<0.001

▼ Air pollutant data (FY2023)

Works	Type of dust-producing facility	Sox (Nm ³ /h)		NOx (ppm)		Soot and dust (g/Nm ³)	
		Standard value	Performance	Standard value	Performance	Standard value	Performance
Nagoya Works	Small boiler No. 1	Not measured due to use of city gas for fuel		150	29	0.050	0.001
	Small boiler No. 2				31		<0.001
	Small boiler No. 3				33		<0.001
	Dryer	0.678	0.013	230	35	0.100	0.001
	Small boiler	Not measured due to use of propane gas for fuel		150	88	0.050	<0.002
	Small boiler				86		
Hokuriku Works	Boiler	$q=K \times 10_{-3} \cdot He_2^{*6}$	0.420	180	103	0.300	0.011
Kansai Works	Small boiler	Not measured due to use of city gas for fuel		150	24	0.050	<0.001
Kyushu Works	Small boiler No. 1	0.090	0.023	180	71	0.050	<0.010
	Small boiler No. 2	0.090	0.015		84		<0.010
	Small boiler No. 3	0.060	0.009		53		<0.010
Kanto Works	Small boiler No. 1	1.010	<0.002	180	38	0.050	<0.001
	Small boiler No. 2				32		<0.001
	Small boiler No. 3				38		<0.001
	Small boiler No. 4				19		<0.001
Chiba Works ^{*7}	No applicable facilities						

Note: The small boilers at each works have been granted extension for application of emission standards for NOx and soot and dust for the time being.

The relevant local government's standard values for boilers are written above as references.

The performance values written above are averages of the twice annual measurements

^{*6} Because SOx standard values are calculated using K (fixed value determined for each region) and He (corrected discharge outlet height (m)) and they use actual measurements of the emission rate and emitted gas volume at the chimney outlet, they differ for each measurement.

As an exception, if a cowl is fitted to the chimney, He is calculated using the actual height of the chimney with no correction, resulting in a fixed standard value.

^{*7} The Chiba Works uses a simple boiler that does not constitute a "dust-producing facility."

People (Daiseki or Daiseki group)

▼ Number of female sales staff (Daiseki) (employee)

	FY2019	FY2020	FY2021	FY2022	FY2023
Female sales staff	2	5	5	5	4

▼ Number of women transferring to regular positions (Daiseki) (employee)

	FY2019	FY2020	FY2021	FY2022	FY2023
Women transferring to regular positions	3	1	2	2	4

▼ Total number of Life Support Club users (Daiseki group) (employee)

	FY2019	FY2020	FY2021	FY2022	FY2023
Total number of Life Support Club users	2,224	3,001	2,019	2,571	2,642

▼ Holders of qualifications, etc. relating to environmental conservation (Daiseiki) Total as of May 2023: 223 (employee)

Qualification	Holders	Qualification	Holders
Specially controlled industrial waste management course	29	Energy manager	5
Specially controlled industrial waste collection & transport course	20	Class 2 biotope construction manager	1
Industrial waste interim processing facility technical manager	26	Dioxin-related pollution prevention manager	2
Specially controlled industrial waste control manager class	47	Water quality-related pollution prevention manager	49
Certified environmental measurer (concentration)	12	Air pollution prevention manager	9
Certified environmental measurer (noise & vibration)	2	Competency assessment in the proper management of industrial waste	21

▼ Holders of qualifications, etc. relating to ensuring safety (Daiseiki) Total as of May 2023: 3,142 (employee)

Qualification	Holders	Qualification	Holders
Class A hazardous materials engineer	65	Industrial dryer operations supervisor	21
Class B-4 hazardous materials engineer	546	Forklift driver skill training course	455
Class 1 health supervisor	32	Crane & derrick driver	13
Organic solvent operations supervisor skill training course	166	Recipients of courses/education on cranes	209
Operations supervisor skill training course for specified chemical substances & tetraalkyl lead, etc.	274	Skill training course for supervisors of operations with risk of oxygen deficiency/ hydrogen sulfide	427
Recipients of special education on work for operations using full-harness fall prevention equipment	313	Vehicle-type construction machinery operation	162
Forepersons/people completing education for safety & health controllers	87	Rigging skill training course	229
People completing education for forepersons & other supervisors	139	KYT trainer (hazard prediction training)	4

Community (Daiseiki)

▼ Agreements with local governments, residents' associations, fishery cooperatives, etc.

- Nagoya Works: Funami-cho, Minato Ward, Nagoya ^{*8}
- Hokuriku Works: Hakusan City; Sogo-shinmachi & Murai-shinmachi, Hakusan City ^{*8}
- Kansai Works: Akashi City; Futami-cho, Akashi City; ^{*8*9} Harima-cho, Kako-gun ^{*8}
- Kanto Works: Sano City, Kurohakama-cho, Nishiura-cho ^{*8}
- Chiba Works: Sodegaura City

^{*8} Concluded with area residents' associations

^{*9} Concluded with relevant fishery cooperatives