

Water Quality by Facility (Fiscal 2023) [DENSO CORPORATION]

Units: PH (none), Escherichia coli (units/ml), others (mg/L), — (no setting), permeability (cm), total amount of items measured (kg/D), ND (below the detection limit)

Regulatory values: Represent the most stringent values according to environmental laws, ordinances, and agreements. When an item is measured only once, the regulatory value is the number indicated in the "Highest" column.

Head Office

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	12.5	1.0	2.0	2.7
Boron	10	8	0.1	0.1	0.1
Cadmium	0.03	0.02	ND	ND	ND
Cyanide	0.8	0.2	ND	ND	ND
COD (total amount)	185.58	185.58	11.4	21.3	46.0
COD (Mn)	25	15	2.1	3.1	4.2
Escherichia coli count	3000	1500	0	1	4
Chromium	2	1	0.0	0.0	0.0
Hexavalent chromium	0.5	0.1	0.01	0.01	0.01
Copper	1	0.5	0.01	0.01	0.01
Fluorine	8	6.4	0.6	0.7	0.9
Iron	5	2.5	0.1	0.1	0.1
Manganese	3	2.5	0.1	0.1	0.1
Nitrogen (concentration)	120	15	6.7	8.3	11.6
Nitrogen (total amount)	211.16	211.16	24.5	45.0	111.9
n-Hexane	5	2.5	1	1	1
Nickel	2	2	0.01	0.01	0.01
Organic + ammonia-form nitrogen	100	80	3.4	3.4	3.4
Oil (mineral oil)	5	2.5	1	1	1
Phosphorus (concentration)	16	2	0	0.2	0.5
Phosphorus (total amount)	24.22	24.22	0.16	1.27	3.50
Lead	0.08	0.02	0.01	0.01	0.01
pH	5.8–8.6	5.8–8.6	6.3	7.0	7.5
Phenol	1	1	0	0	0
Tin	5	5	0.1	0.1	0.1
SS	30	15	1	1	1
Permeability	-	20	30	30	30
Zinc	2	1.6	0.04	0.05	0.07

Anjo Plant (No. 1)

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	12.5	0.5	0.9	1.3
Cadmium	0.05	0.02	ND	ND	ND
Cyanide	1	0.2	ND	ND	ND
COD (total amount)	46.15	46.15	6.5	10.0	13.7
COD (Mn)	25	15	3.6	4.4	6.1
Escherichia coli count	300	300	0	24	144
Chromium	2	1	0.0	0.0	0.0
Hexavalent chromium	0.5	0.1	0.01	0.01	0.01
Copper	1	0.5	0.01	0.01	0.01
Fluorine	8	6.4	0.1	0.1	0.1
Iron	5	2.5	0.1	0.1	0.1
Manganese	5	2.5	0.1	0.1	0.1
Nitrogen (concentration)	60	15	8.0	10.3	11.9
Nitrogen (total amount)	69.23	69.23	12.2	22.5	31.9
Nickel	2	2	0.01	0.01	0.02
Oil (mineral oil)	5	2.5	1.0	1.0	1.0
Phosphorus (concentration)	8	2	0.1	0.1	0.2
Phosphorus (total amount)	9.23	9.23	0.05	0.26	0.54
Lead	0.1	0.02	0.01	0.01	0.01
pH	6.00–9.00	6.00–8.50	6.5	7.0	7.5
Phenol	5	1	0	0	0
Tin	-	5	0.1	0.1	0.1
SS	30	15	1	1	1
Zinc	2	1.60	0.20	0.40	0.54

Anjo Plant (No. 2)

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.5	1.2	2.4
Boron	10	8	0	0	0
Cadmium	0.03	ND	ND	ND	ND
Cyanide	1.0	ND	ND	ND	ND
COD (total amount)	46.15	46.15	2.8	4.2	7.3
COD (Mn)	25	10	2.3	4.4	6.0
Escherichia coli count	3000	300	1	9	22
Chromium	0.2	0.2	0.0	0.0	0.0
Hexavalent chromium	0.05	0.05	0.01	0.01	0.01
Copper	0.2	0.2	0.01	0.01	0.01
Fluorine	2	2	0.1	0.1	0.1
Iron	2	2	0.1	0.1	0.1
Manganese	2	2	0.1	0.1	0.1
Nitrogen (concentration)	120	15	3.9	7.1	9.8
Nitrogen (total amount)	69.23	69.23	3.1	5.6	8.3
Nickel	-	2	0.01	0.01	0.01
Oil (mineral oil)	2	2	1.0	1.0	1.0
Phosphorus (concentration)	16	2	0.3	0.6	1.3
Phosphorus (total amount)	9.23	9.23	0.27	0.51	0.79
Lead	0.1	0.02	0.01	0.01	0.01
pH	6.0–8.5	6.0–8.5	6.9	7.4	8.0
Phenol	0.2	0.2	0.01	0.01	0.01
Tin	-	5	0.1	0.1	0.1
SS	30	10	1	1	1
Zinc	2.0	1.6	0.08	0.18	0.26

Nishio Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.6	1.3	1.8
Boron	10	8	0	0.1	0.9
Cadmium	0.03	0.01	0	0	0
COD (total amount)	102.1	102.1	17.7	21.8	29.1
COD (Mn)	25	10	4.8	5.6	7.4
Escherichia coli count	3000	300	0	0	0
Chromium	2	0.1	0.01	0.01	0.01
Hexavalent chromium	0.50	0.05	0.01	0.01	0.01
Copper	1	0.5	0.01	0.01	0.01
Fluorine	8	5	0.3	0.7	1.5
Iron	10	3	0.1	0.1	0.1
Manganese	10	3	0.1	0.3	0.5
Nitrogen (concentration)	60	15	5.8	7.4	10.0
Nitrogen (total amount)	128.5	128.5	21.2	27.8	35.4
n-Hexane	5	2	0.7	0.98	1.0
Oil (mineral oil)	5	2	0	0	0
Phosphorus (concentration)	8	2	1.0	1.2	1.5
Phosphorus (total amount)	14.3	14.3	1.7	2.4	3.3
Lead	0.1	0.02	0.01	0.01	0.01
pH	5.8–8.6	5.8–8.3	6.5	7.2	7.9
Phenol	5	0.5	0.01	0.01	0.01
SS	30	10	1.4	4.1	6.7
Permeability	-	20	30	30	30
Zinc	2	1	0.08	0.26	0.61

Takatana Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.6	1.2	2.6
Boron	10	8	0.1	0.1	0.1
Cadmium	ND	ND	ND	ND	ND
COD (total amount)	51.93	51.93	3.5	4.2	5.4
COD (Mn)	25	10	3.1	4.3	5.1
Escherichia coli count	3000	300	0	1	4
Chromium	0.2	0.2	0.01	0.01	0.01
Hexavalent chromium	0.05	0.05	0.01	0.01	0.01
Copper	0.2	0.2	0.01	0.01	0.01
Fluorine	2	2	0.0	0.1	0.1
Iron	2	2	0.1	0.1	0.1
Manganese	2	2	0.1	0.1	0.1
Nitrogen (concentration)	60	15	6.2	8.8	11.0
Nitrogen (total amount)	27.45	27.45	5.0	7.9	13.0
n-Hexane	2	2	1.0	1.0	1.0
Nickel	-	2	0.01	0.01	0.01
Oil (mineral oil)	2	1	ND	ND	ND
Phosphorus (concentration)	8	2	0.9	1.1	1.5
Phosphorus (total amount)	2.78	2.78	0.8	1.0	1.2
Lead	0.1	0.02	0.01	0.01	0.01
pH	5.8–8.6	6.5–8.5	6.8	7.3	7.9
Phenol	0.2	0.2	0.01	0.01	0.01
Tin	-	5	0.1	0.1	0.1
SS	30	10	1.0	1.2	2.2
Permeability	-	20	30	30	30
Zinc	2.0	1.6	0.04	0.07	0.11

Daian Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
Arsenic	0.1	0.02	0.01	0.01	0.01
BOD	25	10	1.9	2.4	3.1
Boron	10	8	0.6	0.6	0.6
Cadmium	0.1	0	ND	ND	ND
Cyanide	1	0	ND	ND	ND
COD (total amount)	61.3	61.3	7.0	10.9	17.0
COD (Mn)	25	10	3.8	4.5	5.4
Escherichia coli count	3000	300	0	0	1
Chromium	2.0	0.4	0	0.01	0.01
Hexavalent chromium	0.5	0.1	0	0.01	0.01
Copper	1.0	0.2	0.01	0.02	0.04
Fluorine	8	6.4	0.6	1.6	2.4
Iron	10	2	0	0.1	0.1
Total mercury	0.005	0	ND	ND	ND
Manganese	10	2	0	0.1	0.1
Nitrogen (concentration)	60	15	5.9	7.1	7.5
Nitrogen (total amount)	90.6	90.6	10.7	16.2	22.1
n-Hexane	5	2	0	0.7	1.0
Nickel	2	2	0.01	0.02	0.03
Oil (mineral oil)	5	2	0	0	0
Phosphorus (concentration)	8.0	1.5	0.2	0.3	0.3
Phosphorus (total amount)	9.5	9.5	0.4	0.6	0.9
Lead	0.1	0.02	0	0.01	0.01
pH	5.8–8.6	5.8–8.6	6.9	7.3	7.7
Phenol	5	0.2	0	0.01	0.01
Selenium	0.1	0.02	0.01	0.01	0.01
Tin	-	5	0	0.1	0.1
SS	90	10	0	1.4	2
Permeability	-	20	0	18	30
Zinc	2.0	1.6	0.09	0.12	0.16

Kota Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.4	0.9	3.3
Boron	10	8	ND	ND	ND
Cadmium	0.10	0.02	0.01	0.01	0.01
COD (total amount)	94.7	94.7	14.1	22.5	27.9
COD (Mn)	25	10	4.1	6.2	8.3
Escherichia coli count	3000	300	0	1	6
Chromium	0.1	0.1	0.01	0.01	0.01
Hexavalent chromium	0.05	0.05	0.01	0.01	0.01
Copper	0.5	0.5	0.01	0.01	0.01
Fluorine	5	5	1.8	2.5	3
Iron	3	3	0.02	0.1	0.1
Manganese	3	3	0.05	0.1	0.1
Nitrogen (concentration)	120	15	5.9	8.3	11.1
Nitrogen (total amount)	128.4	128.4	21.4	31.1	50.9
n-Hexane	2	1	1.0	1.0	1.0
Oil (mineral oil)	2	1	ND	ND	ND
Phosphorus (concentration)	16	2	0.0	0.2	0.6
Phosphorus (total amount)	10.4	10.4	0.1	0.6	2.2
Lead	0.1	0.02	0.01	0.01	0.02
pH	5.8–8.6	5.8–8.3	7.1	7.4	7.6
Phenol	0.3	0.25	0.01	0.01	0.01
SS	30	10	1.1	1.8	3.1
Permeability	-	20	30	30	30
Zinc	2	1	0.04	0.10	0.16

Toyohashi Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.5	0.8	1.2
Boron	230	184	ND	ND	ND
Cadmium	0.01	0.01	0.01	0.01	0.01
COD (total amount)	26.3	26.3	3.5	4.6	5.5
COD (Mn)	25	10	5.2	6.9	7.7
Escherichia coli count	3000	1500	0	0	0
Chromium	1	1	0.0	0.0	0.0
Hexavalent chromium	0.05	0.05	0.01	0.01	0.01
Copper	0.5	0.5	0.01	0.01	0.01
Fluorine	7	7	0.1	0.1	0.1
Iron	5	2.5	0.1	0.1	0.1
Manganese	5	2.5	0.1	0.1	0.1
Nitrogen (concentration)	120	15	11.4	11.7	11.9
Nitrogen (total amount)	42.6	42.6	7.7	8.4	8.9
n-Hexane	1	1	1.0	1.0	1.0
Oil (mineral oil)	2	1	1	1	1
Phosphorus (concentration)	-	2	0.2	0.3	0.5
Phosphorus (total amount)	5.1	5.1	0.1	0.2	0.2
Lead	0.1	0.02	0.01	0.01	0.01
pH	5.8–8.5	6.0–8.5	6.8	7.3	7.6
Phenol	0.5	0.25	0.01	0.01	0.01
SS	30	10	1	1.2	1.8
Permeability	-	20	30	30	30
Zinc	2.0	1.6	0.14	0.25	0.41

Agui Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	12.5	0	0.8	1
Boron	10	8	0.1	0.3	1
Cadmium	0.03	0.02	0	0.00	0.00
COD (total amount)	10.8	10.8	1.1	1.5	2.6
COD (Mn)	25	15	4.2	5.5	8.6
Escherichia coli count	3000	1500	0	24	156
Chromium	1	1	0.0	0.0	0.0
Hexavalent chromium	0.25	0.10	0	0.01	0.01
Copper	0.5	0.5	0	0.01	0.01
Fluorine	8	6.4	0	0.1	0.1
Iron	5	2.5	0	0.1	0.1
Manganese	5	2.5	0	0.1	0.1
Nitrogen (concentration)	120	30	2.6	5.4	13.0
Nitrogen (total amount)	14.1	14.1	0.7	1.5	3.9
n-Hexane	1	1	0	1.0	1.0
Oil (mineral oil)	2	1	ND	ND	ND
Phosphorus (concentration)	16	3	0.1	0.3	0.8
Phosphorus (total amount)	1.4	1.4	0.0	0.1	0.2
Lead	0.1	0.02	0	0.01	0.01
pH	5.8–8.6	5.8–8.6	6.6	7.3	8.3
Phenol	1	0.5	0	0.01	0.01
SS	30	15	0	1	1
Permeability	-	20	30	30	30
Zinc	2.0	1.6	0.08	0.10	0.14

Advanced Research and Innovation Center

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
Arsenic	0.1	0.02	0	0.01	0.01
BOD	25	12.5	0	0.9	3.5
Cadmium	0.1	0.02	0	0.00	0.00
COD (total amount)	15.5	15.5	1.3	2.2	3.3
COD (Mn)	25	15	4	5.7	7
Escherichia coli count	3000	1500	0	0	1
Chromium	2	1	0.0	0.0	0.0
Hexavalent chromium	0.5	0.1	0	0.01	0.01
Copper	1.0	0.5	0	0.01	0.01
Fluorine	7.5	6.4	0.2	1.1	2.4
Iron	10	2.5	0	0.1	0.1
Manganese	10	2.5	0	0.1	0.1
Nitrogen (concentration)	120	20	6.2	9.3	15.0
Nitrogen (total amount)	14.80	13.56	2.4	3.6	6.2
n-Hexane	1	1	0	1.0	1.0
Nickel	-	2	0	0.01	0.01
Phosphorus (concentration)	-	3	0.0	0.3	1.6
Phosphorus (total amount)	2.3	0.96	0.0	0.1	0.8
Lead	0.1	0.02	0	0.01	0.01
pH	5.8–8.6	5.8–8.6	6.8	7.5	8.2
Phenol	1	0.5	0	0.01	0.01
Tin	-	5	0	0.1	0.1
SS	30	15	0	1	1
Permeability	-	20	30	30	30
Zinc	2	1.6	0.01	0.02	0.04

Zenmyo Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.2	0.8	1.2
Boron	10	8	0	0	0
Cadmium	0.1	0.02	0.01	0.01	0.01
COD (total amount)	14.4	14.4	2.1	2.5	3.5
COD (Mn)	25	10	3.6	5.7	7
Escherichia coli count	3000	300	0	0	0
Chromium	0.1	0.1	0.01	0.01	0.01
Hexavalent chromium	0.05	0.05	0.01	0.01	0.01
Copper	0.5	0.5	0.01	0.01	0.01
Fluorine	8	6.4	0.1	0.1	0.1
Iron	2.5	2.5	0.05	0.08	0.2
Manganese	2.5	2.5	0.01	0.09	0.1
Nitrogen (concentration)	120	10	4.0	5.9	7.8
Nitrogen (total amount)	24.5	24.5	1.6	2.5	3.0
n-Hexane	2	1	0	0	0
Oil (mineral oil)	2	1	1	1	1
Phosphorus (concentration)	8	1	0.0	0.3	1.3
Phosphorus (total amount)	2.63	2.63	0.0	0.1	0.5
Lead	0.08	0.02	0.01	0.01	0.01
pH	5.8–8.3	5.8–8.3	6.9	7.5	8.0
Phenol	0.5	0.25	0.01	0.01	0.01
SS	30	10	0.6	1.3	2.3
Permeability	-	20	30	30	30
Zinc	2	1	0.05	0.10	0.19

Nukata Proving Ground

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	12.5	0.6	0.9	1.9
COD (total amount)	3	2.6	0.0	0.0	0.1
COD (Mn)	25	20	2.8	3.6	5.4
Escherichia coli count	3000	100	0	15	43
Chromium	1	1	0.0	0.0	0.0
Copper	1	1	0	0	0
Iron	5	5	0.7	1.0	1.3
Manganese	3	3	0.2	0.3	0.3
Nitrogen (total amount)	2.05	2.05	0.0	0.1	0.5
n-Hexane	2	2	1.0	1.0	1.0
Phosphorus (total amount)	0.2	0.2	0	0.0	0.02
pH	5.8–8.5	6.5–8.5	7.1	7.5	7.7
SS	70	20	1	3.0	8.1
Permeability	30	30	30	30	30
Water temperature	30	30	4.0	14.9	23.4
Zinc	2.0	1.6	0.03	0.05	0.06

Kosai Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	20	12	0	0.6	0.9
Boron	10	8	0.2	0.2	0.2
Cadmium	0.002	0.002	0	0.001	0.001
COD (Mn)	25	12	4.3	4.8	5.5
Escherichia coli count	3000	300	0	2	4
Chromium	0.4	0.08	0	0.05	0.05
Hexavalent chromium	0.1	0.05	0	0.05	0.05
Copper	1	0.4	0	0	0
Fluorine	8	4	0	0.1	0.1
Iron	10	4	0	0.1	0.1
Manganese	10	5	0	0.1	0.1
Nitrogen (concentration)	120	25	5.1	6.7	9.7
n-Hexane	5	1.5	0	1.0	1.2
Phosphorus (concentration)	16	2	0.3	0.7	1.1
Copper	0.1	0.01	0	0.01	0.01
pH	5.8–8.6	6.3–7.8	6.8	7.1	7.4
Phenol	0.2	0.15	0	0.01	0.01
SS	30	12	0	1.1	1.7
Permeability	30	30	30	30	30
Zinc	1	0.4	0.02	0.04	0.07

Toyohashi East Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
BOD	25	10	0.5	0.5	0.9
Boron	10	8	0.2	0.2	0.2
Cadmium	0.1	0.01	0.00	0.00	0.00
COD (total amount)	7.02	4.72	0.7	1.1	1.5
COD (Mn)	25	12	2.5	3.642	5.1
Escherichia coli count	3000	150	0	3	18
Chromium	2	1	0.1	0.1	0.1
Hexavalent chromium	0.50	0.05	0.05	0.05	0.05
Copper	2	1	0	0	0
Fluorine	8	4	0.1	0.1	0.1
Iron	10	4	0.1	0.1	0.2
Manganese	10	5	0.1	0.1	0.1
Nitrogen (concentration)	120	15	7.5	9.7	11.9
Nitrogen (total amount)	10.57	4.72	2.2	2.8	3.5
n-Hexane	2	1.5	1.0	1.0	1.0
Phosphorus (concentration)	16.0	1.5	0.01	0.05	0.13
Phosphorus (total amount)	0.93	0.47	0.01	0.01	0.04
Lead	0.1	0.01	0.01	0.01	0.01
pH	5.8–8.6	6.3–7.8	6.7	7.1	7.4
Phenol	0.5	0.3	0	0.01	0.03
SS	30	12	0.9	1.2	3.9
Permeability	30	30	30	30	30
Zinc	5	2	0.01	0.04	0.16

Hirose Plant

Items of Measurement	Regulatory Values	DENSO Standards	Measurement Values		
			Lowest	Average	Highest
pH	5.8–8.6	6.1–8.3	7.5	7.6	7.6
BOD	10	8	0.5	0.6	0.8
SS	10	8	0.8	0.98	1
n-Hexane	2	1.6	0.1	0.15	0.2
Phenol	0.5	0.4	0.01	0.01	0.01
Copper	0.2	0.16	0.01	0.01	0.01
Zinc	1	0.8	0.05	0.08	0.12
Iron	2.5	2	0.1	0.1	0.1
Manganese	2.5	2	0.01	0.09	0.1
Chromium	0.2	0.16	0.01	0.01	0.01
Escherichia coli	3000	2400	0	0	0
Total nitrogen (T-N)	60(30)	6.4	0.31	0.51	0.87
Total phosphorus (T-P)	8(4)	1.6	0.03	0.06	0.1
Cadmium	0.01	0.01	0	0	0
Cyanide (CN)	0.1	0.08	0.01	0.01	0.01
Organic phosphorus	0.1	0.08	0.05	0.05	0.05
Lead	0.05	0.04	0.01	0.01	0.01
Hexavalent chromium	0.05	0.04	0.01	0.01	0.01
Arsenic	0.01	0.01	0.01	0.01	0.01
Total mercury (T-Hg)	0.0005	0.0005	0.0003	0.0003	0.0003
Alkyl mercury compounds	Not detected	0.0005	0.0004	0.0004	0.0004
Polychlorinated biphenyls	0.0005	0.0004	0.0004	0.0004	0.0004
Trichloroethylene	0.15	0.12	0.002	0.002	0.002
Tetrachloroethylene	0.05	0.04	0.0005	0.0005	0.0005
Dichloromethane	0.1	0.08	0.002	0.002	0.002
Carbon tetrachloride	0.002	0.0016	0.0002	0.0002	0.0002
1,2-Dichloroethane	0.004	0.003	0.0004	0.0004	0.0004
1,1-Dichloroethylene	0.1	0.08	0.002	0.002	0.002
Cis-1,2-Dichloroethylene	0.2	0.16	0.004	0.004	0.004
1,1,1-Trichloroethane	1.5	1.20	0.0005	0.0005	0.0005
1,1,2-Trichloroethane	0.006	0.005	0.0006	0.0006	0.0006

1,3-Dichloropropene	0.002	0.002	0.0002	0.0002	0.0002
Thiuram	0.006	0.005	0.0006	0.0006	0.0006
Simazine	0.003	0	0.0024	0.0024	0.0024
Thiobencarb	0.02	0.02	0.016	0.016	0.016
Benzene	0.01	0.01	0.001	0.001	0.001
Selenium (Se)	0.01	0.01	0.01	0.01	0.01
Fluorine	4	3.2	0.2	0.4	0.6
Boron	5	4	0.1	0.1	0.1
Ammonium compounds, nitrites, and nitric acid compounds	50	40.0	0.10	0.56	1.34
1,4-Dioxane	0.25	0.20	0.010	0.010	0.010