

Water Use Volume Results

To promote effective use of water, for example, the Nagano Plant is reusing wash water in the printer board manufacturing process and converting fresh water to water for industrial use.

It has also installed facilities such as a garden and biotope that support plants and animal life. Fujitsu's circulating water usage volume was 47,423,000 tons in fiscal 2001.

Fiscal 2001 Data (Plants/sites)

Volume of Water Used	Fujitsu	Domestic manufacturing	Overseas manufacturing	Group total
Volume of water used (m ³) (Details)	18,300,000	12,960,000	2,973,000	34,233,000
Water supply usage volume (m ³)	8,170,000	5,742,000	584,000	14,496,000
Industrial water usage volume (m ³)	8,683,000	2,030,000	2,084,000	12,797,000
Underground water usage volume (m ³)	1,447,000	5,188,000	305,000	6,940,000
Circulating water usage volume (m ³)	43,573,000	3,671,000	179,000	47,423,000

Volume of Water Used	Fujitsu	Domestic manufacturing	Overseas manufacturing	Group total
Total emission volume (m ³)	16,259,000	9,736,000	2,421,000	28,416,000
BOD emission volume (t)	107	89	181	377
COD emission volume (t)	90	27	428	545

Volume of Water Used	Fujitsu	Domestic manufacturing	Overseas manufacturing	Group total
Nitrogen oxide emission volume (t)	147	474	6,371	6,992
Sulfur oxide emission volume (t)	243	297	1,565	2,095

Water, Air, Noise, Vibration Management Based on Internal Standards

We have established our own standards for control of water, air, noise and vibrations which are stricter than those established by Japanese governmental, prefectural or city ordinances for purposes such as water quality preservation.

Fujitsu AMD Semiconductor

(Unit: mg/ℓ)

Water Quality Item	National standard	Prefectural standard	Environmental agreement	Internal standard	Maximum (at least)	Average value
Hydrogen ion density	pH 5.8 ~ 8.6	5.8 ~ 8.6	5.8 ~ 8.6	6.0 ~ 8.0	7.8	7.3
Biochemical oxygen demand	BOD 160(120)	25 (20)	20 (16)	16(13)	4.1	2.6
Chemical oxygen demand	COD 160(120)	160(120)	160(120)	16(13)	4.6	2.2
Suspended solids	SS 5	70(50)	70(50)	28(20)	1.2	0.44
Volume of n-hexane extraction included	Mineral oil 30	1	1	0.5	<0.5	<0.5
Volume of n-hexane extraction included	Animals and plants 30	10	10	3	<0.5	<0.5
Number of colon bacillus group	3000	3000	3000	300	44	4
Volume of nitrogen included	120(60)	120(60)	120(60)	77(38)	7.1	4.6
Volume of phenol included	5	1	1	0.1	<0.1	<0.55
Volume of fluorine included	15	10	10	8	<0.2	<0.2
Volume of phosphorus included	16(8)	16(8)	12.8 (6.4)	8(4)	2.7	0.7

(Unit: dB)

Noise/Vibration Item	National standard	Prefectural standard	Internal standard	Maximum (at least)	Average value
Daytime	—	60	59	49	47.5
Morning/evening	—	55	54	49	46.1
Nighttime	—	50	49.5	49	46.5

(Plural particular facilities)

Air Item	National standard	Prefectural standard	Environmental agreement	Internal standard	Maximum (at least)	Average value
Nitrogen oxide	ppm 150	150	144	120	52	47.5
Sulfur oxide	Nm ³ /h K value: 17.5	K value: 10	K value: 6.42	K value: 5.12	K value: 0.1	K value: 0.06
Dust	g/Nm ³ 0.25	0.25	0.25	0.2	0.002	0.002

Fujitsu Nagano Plant

(Unit: mg/ℓ)

Water Quality Item	National standard	Prefectural standard	Internal standard	Maximum (at least)	Average value
Hydrogen ion density	pH 5.8 ~ 8.6	5.8 ~ 8.6	6 ~ 8.2	6 ~ 8	7.2
Biochemical oxygen demand	BOD 160	30	25	25	13.6
Suspended solids	SS 150	30	25	25	5
Copper	Cu 3	2	0.7	0.69	0.24
Resolvable iron	Fe 10	10	4	1.46	0.22
Zinc	Zn 5	3	0.7	0.65	0.05
Manganese	Mn 10	10	3	0.54	0.04
All chromium	All Cr 2	1	0.2	0.06	0.01
Lead	Pb 0.1	0.1	0.07	0.07	0.02
Cadmium	Cd 0.1	0.05	0.01	0	0
Fluorine	F 15	15	7	8.7	2
All cyanogen	CN 1	0.5	0.1	0.08	0.03

(Unit: dB)

Noise/Vibration Item	National standard	Prefectural standard	Internal standard	Maximum (at least)	Average value
Daytime (noise)	50 ~ 60	60	59	58.8	55.5
Morning/evening (noise)	45 ~ 50	50	49.5	49.3	48
Night time (noise)	50 ~ 60	50	49.5	46	45
Daytime (vibration)	50 ~ 60	65	60	38	33.8
Nighttime (vibration)	50 ~ 60	60	55	33.2	29.6

(Plural particular facilities)

Air Item	National standard	Prefectural standard	Internal standard	Maximum (at least)	Average value
Nitrogen oxide	ppm 180	180	90	40	13
Sulfur oxide	Nm ³ /h 8.4	8.4	4.0	3.8	3.2
Dust	g/Nm ³ 0.3	0.3	0.03	0.02	0.006

* Please see our homepage for results for the various Fujitsu plants with respect to water, air, noise and vibrations.