

Fujitsu Components Group Environmental Report FY2016

The Fujitsu Components Group recognizes environmental management as one of the most important roles, and contributes to build a sustainable society and global environmental protection by striving to reduce adverse environmental impacts generated by products or services offered throughout the business activities.

1. Greeting

The Fujitsu Components Groups, a member of FUJITSU group companies, stands by the principle that *keep the best corporate activities while improving our coexistence with the environment*. FY2015 was the last year of the 6th Stage of the Fujitsu Components Group Environmental Protection Program (FY2013 to FY2015) and we have successfully achieved all targets aiming to *development and offer of eco-friendly products, collaboration with society, activities as good corporate citizens, reduction of greenhouse gas emission, improvement of energy efficiency, promotion to reduce CO₂ emission of partner companies, and hold down of waste emission*. In the 7th Stage of Group Environmental Protection Program (FY2016 to FY 2018), we expand our activity area to the value chain including customers and suppliers and strive to reduce adverse environmental impacts further.

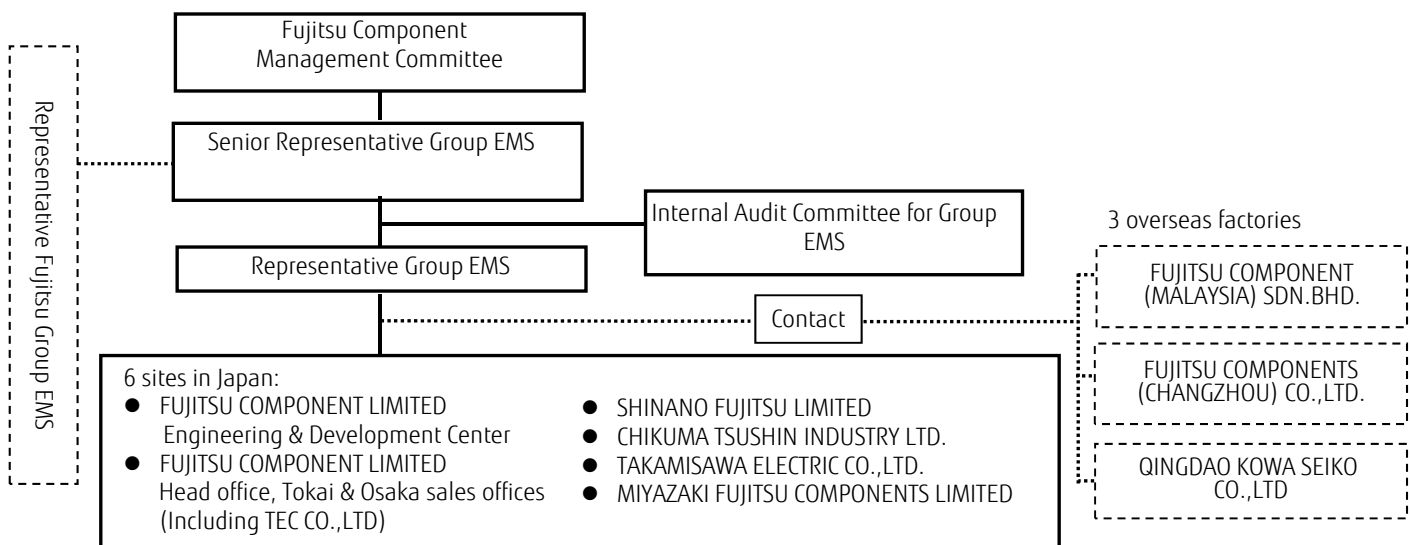
We will continuously promote our environmental activities to materialize a low carbon and prosperous society along with the FUJITSU Group's *Environmental Policy* and mid-term environmental vision of the *Green Policy 2020*.

(FUJITSU Group's Environmental Policy and Green Policy 2020:
<http://www.fujitsu.com/jp/about/environment/approach/policy/index.html>)



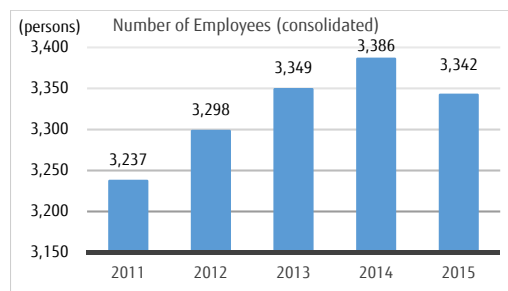
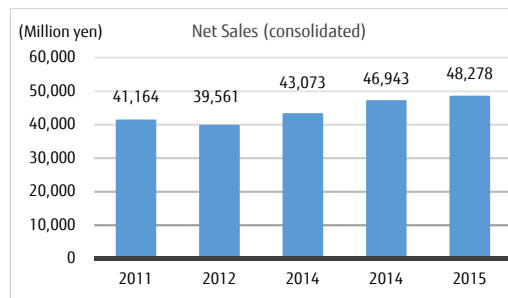
Koichi Ishizaka
President and
Representative Director

2. Organization for Environmental Activities



3. Group Profile (as of March 31, 2016)

Head Office address	FUJITSU COMPONENT LIMITED Shinagawa Seaside Park Tower, 12-4, Higashi-shinagawa 4-chome, Shinagawa-ku, Tokyo 140-0002, Japan
President	Koichi Ishizaka
Founded	September 17, 2001
Main Business	Manufacturing and sales of switching devices (relays and connectors), human interface devices (touch panels, thermal printers, wireless modules, KVM switches).
Capital	6,764 million yen
Sales	48,278 million yen (consolidated)
Financial Year End	March 31
Employees	3,342 (consolidated)
Equity Market	Second Section of the Tokyo Stock Exchange, code 6719
Group Composition	The Group is composed of total 15 companies; 6 Japanese companies including 1 sales company, and 9 overseas companies including 6 sales companies



4. Environmental Policy, Environmental Protection Program

■ Fujitsu Components Group Environmental Policy

Philosophy

The Fujitsu Components Group, a member of the Fujitsu Group, recognizes the value and importance of protecting the global environment as one of the most important issues. Our environmental philosophy is:

We shall adhere to the best corporate activities while improving our coexistence with the environment.

As an enterprise that develops, designs, manufactures, and sells electrical components, we promote the Environmental Management System (EMS) in accordance with ISO14001.

Action Guidelines

- We continuously improve our environmental management system to reduce and prevent environmental pollution by keeping the environmental aspects in mind through our activities, products and services.
- We offer products that both help achieve business growth and protect the environment.
- We comply with the various environmental laws as they apply to our activities, products and services.
- We completely ban hazardous substances in our products and do not discharge any hazardous substances into the environment as specified by Fujitsu Components Group.
- Every employee shall strive to improve the environment including use of sustainable sources*1, climate control, and biodiversity conservation at work and at home and extend those activities to society.

*1: We proactively pursue environmental conscious design, reduction of waste and recycling to prolong the life of exhaustible materials.

Centerpiece

We promote the following activities as the most important environmental management aspects in regards to our business activities, products and services:

1. Develop and offer eco-friendly products.
2. Cooperate with society and activities as good corporate citizens.
3. Reduce greenhouse gas (GHG) emissions.
4. Improve energy efficiency.
5. Promote reduction of CO2 emission in partner companies.
6. Reduce waste and emissions.

Supplements

1. This policy is documented and made public to our employees, group members and all other parties concerned.
2. Our Environmental Management Division is responsible for the Environmental Policy.

5. The 6th Stage Group Environmental Protection Program (FY2013 to FY2015) Results

FY2015 was the last year of the 6th Stage of the Fujitsu Components Group Environmental Protection Program (FY2013 to FY2015) and we have successfully achieved all targets aiming to *development and offer of eco-friendly products, collaboration with society, activities as good corporate citizens, reduction of greenhouse gas emission, improvement of energy efficiency, promotion to reduce CO₂ emission of partner companies, and hold down of waste emission.*

Item	The 6 th Stage Group Environmental Protection Program Goals	FY2015		
		Targets	Results	Rating
Social contribution activities	Development and provision of eco-friendly products Each product family should develop at least one new eco-friendly product by FY2015. i. Product having a leading energy-efficiency.*1 ii. Product's resource efficiency is increased by 10% or more compared to FY2011.*2	Develop min.2 new eco-friendly products	Developed 5 products	Good
	Cooperation with society We promote the activities addressing resolution of social and environmental issues such as biodiversity conservatory.	Implement min.1 activities at each site (Total:20)	21 activities completed	Good
	Activities as a good corporate citizen We continuously enhance social contribution activities that corporate members can take back to their communities.	Implement min.1,658h in total of all sites	2,145h performed	Good
Own business activities	Reduction of greenhouse gas (GHG) emissions We will reduce total emission amount of energy origin CO ₂ by 27% compared to FY2000 (22,777t-CO ₂ *3) by FY2015.	Hold it down to below 16,578t-CO ₂	15,190t-CO ₂	Good
	Improvement of energy efficiency We will improve specific energy consumption unit *4 in a facility by an average of 1% per year.	Improve it to min. 2.97% against an average of 3 objective sites Of FY2012	Av. 15.3% improvement	Good
	Promotion for reducing CO₂ emission in partner companies We will promote reduction of CO ₂ emission by all our partner companies.	Extend it to all suppliers(235 companies)	Confirmed all suppliers carried out program	Good
	Control on waste emission We will generate less waste so that it does not exceed an average of FY2007 to FY2011 (839t) by FY2015.	Reduce it to less than 650t	630t	Good

*1: The products meet the criteria which is ranked in the top 25% in the market including leading products (world-first, industry-first, world-best, industry-best) in energy efficiency.

*2: Improvement of products' resources saving (smaller, lighter, thinner, reducing number of parts) or resource circulation (reducing waste amount, recycle).

*3: CO₂ conversion coefficient : 0.407t-CO₂/MWh in FY2002 is used for power conversion coefficient.

*4: Specific energy consumption unit means energy consumption amount per unit such as per sales amount, per production quantity, etc.

6. The 7th Stage Group Environmental Protection Program (FY2016 to FY2018)

The 7th Stage of the Fujitsu Components Group Environmental Protection Program has been established. Detailed action plans until end of FY2018 have been provided and started. Separate targets for FY2016 have been prepared based on the 7th Stage Group Environmental Protection Program. Social contribution activities and environmental impact reduction activities will strongly be proceeded.

Item	The 7th Stage Group Environmental Protection Program Goals	FY2016 Targets
		Targets
Social contribution activities	Improvement of environmental value throughout product lifecycle At least five new eco-friendly products shall be developed by end of FY2018. i. Product shall have a leading energy-efficiency* ¹ ii. Products' resource efficiency* ² shall be improved by 5% or more compared to those of FY2014	Develop min.2 new eco-friendly products
	Promotion of social contribution activities Each employee try will make contribution for the society to materialize prosperous and sustainable society. i. Social contribution activities which employees communicate with society will be proceeded. ii. Materials support and other activities to resolve various social/environmental issues such as preservation of biodiversity will be proceeded.	Implement min.33 activities
Own business activities	Reduction of greenhouse gas (GHG) emissions We shall maintain total emission amount of energy origin CO ₂ less than 106% (20,494t-CO ₂) compared to that of FY2013 (19,360t-CO ₂). (Purchased electricity CO ₂ conversion efficiency : 0.570t-CO ₂ /MWh) ^{*3}	Hold it down to below 22,101t-CO ₂ (11% reduction against emission amount estimated by reflecting same ratio as FY2013)
	Improvement of energy efficiency We will improve specific energy consumption unit* ⁴ in a facility by an average of 1% per year.	Min. 8.7% improvement among 3 business sites (See details shown in appendix below)
	Promotion for reducing of CO₂ emission among supply chain First-tier suppliers shall investigate all their second-tier suppliers by end of FY2018.	Extend it to 80% of suppliers
	Control on waste emission We will generate less waste so that it does not exceed an average of FY2012 to FY2014 (626t) by FY2018.	Reduce it to less than 658t (9% reduction against generated amount estimated by reflecting same ratio as FY2012 to 2014 average.)

*1: The products meet the criteria which is ranked in the top 25% in the market including leading products (world-first, industry-first, world-best, industry-best) in energy efficiency.

*2: Improvement of products' resources saving (smaller, lighter, thinner, reducing number of parts) or resource circulation (reducing waste amount, recycle).

*3: CO₂ conversion coefficient : 0.407t-CO₂/MWh in FY2002 is used for power conversion coefficient.

*4: Specific energy consumption unit means energy consumption amount per unit such as per sales amount, per production quantity, etc.

Appendix: Energy consumption unit FY2016 target

Site name	Calculation formula	Base figure (calculation base year)	Improved ratio against base year	Target
FUJITSU COMPONENT Engineering & Development Center	$\frac{\text{Energy consumption (kl)}}{\text{sales amount (Million Yen)}}$	0.771 (FY2012)	20.2%	Less than 0.6148
SHINANO FUJITSU	$\frac{\text{Energy consumption (kl)}}{\text{sales amount (Million Yen)}}$	1.633 (FY2012)	10.2%	Less than 1.4966
MIYAZAKI FUJITSU COMPONENTS	$\frac{\text{Energy consumption (kl)}}{\text{production quantity (Kpcs)}}$	0.0158(FY2012)	8.7%	Less than 0.01443

7. Environmental Activities

■ Development of Eco-friendly Products

We, Fujitsu Components Group strive to develop components and products used for eco-friendly products which offer advantage in energy-efficiency and resource-efficiency. We provide the products contribute to environmental and commercial aspect.

Improvements	Products	Products developed
Energy efficiency	KVMs	< Drawer correspond to full HD > -Power saving by 12% (Compared with our conventional type)
	Wireless modules	< FWM8BLZ02 <i>Bluetooth</i> ® low energy sensor beacon > -Top class energy efficiency in the market
Resource efficiency	Relays	< FTR-K4 relays > (For smart meter) -Weight reduction rate by 47% (Compared with our conventional type)
	Thermal printers	< FTP-62GUSL > -Weight reduction rate by 56% (Compared with our conventional type)
	Touch panels	< Shift to larger size mother glasses > -Glass waste reduction rate by 12% among 5 specific parts numbers.*1

*1 : It is an activity to reduce the glass waste by shifting to larger size mother glass and cutting effectively. Reduction rate is obtained by area comparison of a produced panel and wasted glass between previous mother glass and larger one.



Drawer correspond to full HD



Sensor beacon (FWM8BLZ02)



Relay for smart meter
(FTR-K4 relay)



Small size panel mount type
printer unit (FTP-62GUSL)

■ Management of restricted chemical substances in products

Information about chemicals in raw/auxiliary materials used in our products is controlled based on reports from material suppliers. Products are developed/designed under regulations/laws and customer standards. Amendment of European RoHS directives and REACH regulations, such as expire of exemptions or addition of phthalic ester or other chemicals shall be studied and accommodated.

■ Green procurement

All raw/auxiliary materials are procured in line with *Green procurement agreement* and *Environmental common procurement specification*. Those materials are verified with certificates that guarantee non-use of restricted materials specified by Fujitsu Limited and Fujitsu Components group or by AIS data*1. We also proceeds the activities to reduce environmental load throughout supply chain. We have been requesting partners to build environmental management system and activities for prevention of global warming.

<Actions to conflict minerals>

We cope with conflict minerals problem based on Fujitsu Group procurement policy*2. We have been proceeding investigation in line with OECD guidance and CFSI template*3 to provide reliable information of usage of DRC conflict minerals*4 for customers.

*1 : AIS stands for Article Information Sheet, a standard format recommended by Joint Article Management Promotion-consortium(JAMP) to disclose/transmit information of chemical substances contained in a product.

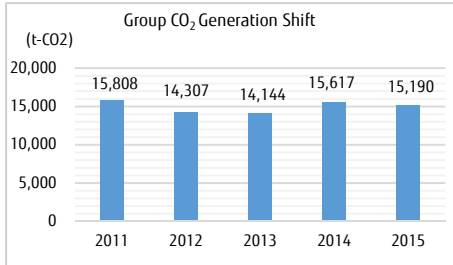
*2: Refer to : <http://www.fujitsu.com/global/about/procurement/policy/>

*3: Organisation for Economic Co-operation and Development (OECD)'s due diligence guidance, a format of Conflict-Free Sourcing Initiative (CFSI).

*4 : 4 minerals (tin, tantalum, tungsten and gold) mined in Democratic Republic of Congo and neighboring countries.

Global warming prevention activities

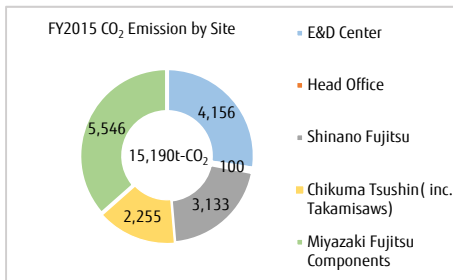
FUJITSU COMPONENTS group has been continuously investigating new countermeasures and modifications for existing measures to reduce usage of electricity and heavy fuel oils. For example, we eliminated thin-film type air dryers in production line since we found enough dehumidified air had been supplied without them.



Excess dryer units connected to air circulation system were removed for energy saving (E&D center)



Green curtain for lowering temperature (MIYAZAKI FUJITSU COMPONENTS)



Introduction of LED lighting (Chikuma Tsushin)

Improvement on energy efficiency

The specific energy consumption management have been performed in all *Type 2 Designated Energy Management Factories**1 (FUJITSU COMPONENT Engineering & Development Center, SHINANO FUJITSU and MIYAZAKI FUJITSU COMPONENTS).

The target of 6th Stage Group Environmental Protection Program was achieved by implementing all planned activities, although it turned worse in FUJITSU COMPONENT Engineering & Development Center where introduced new touch panel production lines in FY2014 but its productivities had not reached to the level, and on other front production shifted to low-end products.

*1: Factories of which energy consumption greater than 1,500kl but under 3,000kl crude oil equivalent, specified in a law.

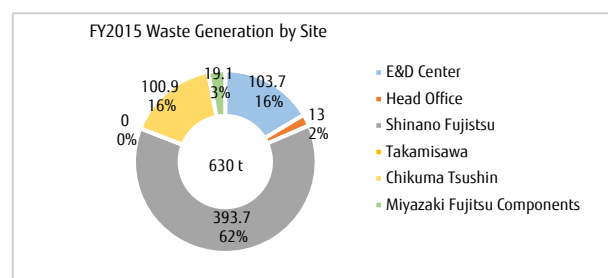
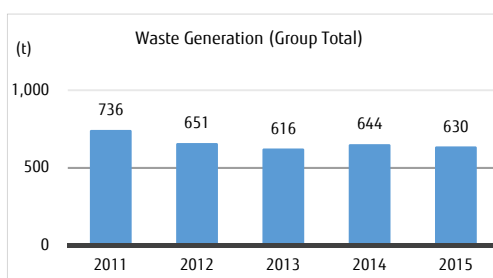
Site	Formula	FY2012 (Base)	FY2013 Results	FY2014 Results	FY2015 Results	Ratio (vs FY2012)	Major activities
FUJITSU COMPONENT Engineering & Development Center	$\frac{\text{Energy consumption (kl)}}{\text{Sales amount (M.Yen)}}$	0.7710	0.5689	0.6002	0.6564	-15%	• Electricity reduction by removing excess air-dryer units connected in touch panel line
SHINANO FUJITSU	$\frac{\text{Energy consumption (kl)}}{\text{Sales amount (M.Yen)}}$	1.633	1.574	1.432	1.418	-13%	• Installation of eco-friendly compressor system and air conditioning machines. • Painting of thermal barrier paint on roofs
MIYAZAKI FUJITSU COMPONENTS	$\frac{\text{Energy consumption (kl)}}{\text{Production qty (K pcs)}}$	0.01577	0.01437	0.0146	0.01438	-9%	• Electricity reduction by replacing fans with inverter type and implementation of electricity peak cut by using demand controller

Industrial waste reduction management

We have introduced following actions to reduce hard-to-recycle materials such as glass chips and sludge after plating process in FY 2015.

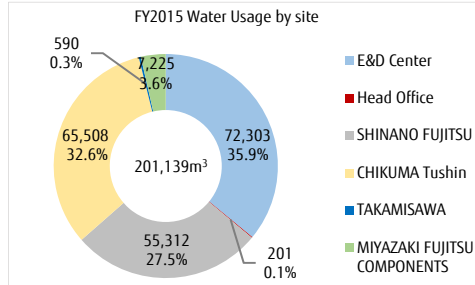
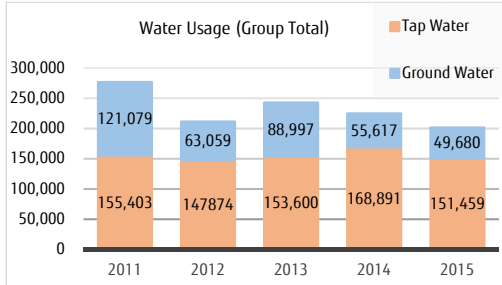
- Reduction of sludge volume by using much effective flocculant.
- Reduction of waste glass per one touch panel by replacing mother glass of touch panel to much larger size.

We continuously strive to reduce industrial waste and use materials effectively by communicating with other group members.



■ **Water usage reduction activities**

Engineering and Development center has been using pure water in their production process and using two water purification machines. Approx. 10%(23,000m³) water saving compared with those of FY2014 has been achieved by operation of a smaller machine during night time as the usage of pure water turn to lower than day time.



■ **Status of social contribution activities: Collaboration with society*1 and activities as good corporate citizens*2**

Each site of our group engages in social contributions, in which not only our employees but also their family members join to work closely with regional administrations.

*1: Donations through collection of bottle cap collection and used stamps, purchasing of environmental contribution products.

*2: Clean-up activity in local area, removal of invasive plants, preservation of nature activities.



SHINANO FUJITSU:
Cleaning up of gutters around factory

HEAD OFFICE:
Green reconstruction activity:
Raising oak seeds from disaster area
and nursery trees back to the
original area.

Engineering & Development Center:
Joining city clean-up activity organized
by Suzaka City, bottle cap collection &
forest thinning activities



MIYAZAKI FUJITSU COMPONENTS:
Cleaning up of spawning coast of
loggerheads turtles

CHIKUMA TSUSHIN & TAKAMISAWA:
Cleaning up of the road around factories

8. Environmental Law Compliance

■ Measured items and results

FY2015 Measuring data								
	Laws	Items	Unit	Legal threshold	Local threshold	Voluntary threshold	Result	
Engineering & Development Center	Air Pollution Control Act	Dust concentration	g/Nm ³	0.3	0.3	≤0.1	0.006	
		Sulfur Oxide concentration	Nm ³ /h	-	-	≤2.5	0.024	
		Nitrogen Oxide	ppm	260	180	≤150	64	
	Sewerage Act	Hydrogen-ion concentration (pH)			5.0~9.0	5.0~9.0	5.1~8.9	7.4~7.5
		Biochemical Oxygen Demand (BOD)	mg/l	600	600	≤300	84	
		Suspended Solids	mg/l	600	600	≤300	5	
		n-hexane extraction (mineral oil)	mg/l	5	5	≤4	1.3	
	Noise Regulation Act	Morning, evening time	dB	55-65	60	≤55	49.8	
		Noon time	dB	60-65	60	≤55	49.7	
		Night time	dB	50-55	50	≤47.5	47.1	
	Vibration Regulation Act	Noon time	dB	65-70	65	≤60	31.8	
		Night time	dB	60-65	60	≤55	31.6	
SHINANO FUJITSU	Air Pollution Control Act	Dust concentration	g/Nm ³	-	-	≤0.18	0.011	
		Nitrogen Oxide	ppm	-	-	≤108	53	
	Sewerage Act	Hydrogen-ion concentration (pH)			5.0~9.0	-	5.5~8.5	8.2
		Biochemical Oxygen Demand (BOD)	mg/l	600	-	≤550	22	
		n-hexane extraction (animal/vegetable oil)	mg/l	30	-	≤15	1.1	
		n-hexane extraction (mineral oil)	mg/l	5	-	≤3	1.0	
	Noise Regulation Act	Morning, evening	dB	-	-	≤70	54.5	
		Noon time	dB	-	-	≤70	57.2	
		Night time	dB	-	-	≤65	56	
	Vibration Regulation Act	Noon time	dB	-	-	≤70	39.2	
		Night time	dB	-	-	≤65	37	
	MIYAZAKI FUJITSU COMPONENTS	Water Pollution Control Act (Hidakajima plant)	Hydrogen-ion concentration (pH)		-	-	6.0~8.4	6.2~7.8
			n-hexane extraction (Mineral oil)	mg/l	5	-	≤4.5	≤0.5
		Water Pollution Control Act (Headquarter plant)	Hydrogen-ion concentration (pH)		-	-	6.0~8.4	7.1~7.9
			n-hexane extraction (Mineral oil)	mg/l	5	-	≤4.5	≤0.5
Water Pollution Control Act (Obi plant)		Hydrogen-ion concentration (pH)		-	-	6.0~8.4	6.8~7.7	
		n-hexane extraction (Mineral oil)	mg/l	5	-	≤4.5	≤0.5	
Noise Regulation Act (Obi plant)		Morning, evening	dB	50	-	≤49	48.7	
		Noon time	dB	55	-	≤53.9	49.5	
		Night time	dB	45	-	≤44.1	43.8	
CHIKUMA TSUSHIN Nozawa plant		Water Pollution Control Act (Hidakajima plant)	Hydrogen-ion concentration	pH	5.8~8.6	-	6.0~8.4	6.8~7.3
	Biochemical Oxygen Demand		mg/l	160	-	≤108	1.2	
	Tetrachloroethylene		mg/l	0.1	-	≤0.09	<0.001	
	Trichloroethylene		mg/l	0.3	-	≤0.27	<0.001	
	Cis-1,2-dichloroethylene		mg/l	0.4	-	≤0.36	<0.01	
TAKAMISAWA Shinshu plant	Sewerage Act	Hydrogen-ion concentration	pH	5.0~9.0	-	6.0~8.9	8.6	
		Biochemical Oxygen Demand	mg/l	600	-	≤300	5.4	
		n-hexane extraction (Mineral oil)	mg/l	5	-	≤4.5	<1.0	
	Noise Regulation Act	Morning, evening	dB	-	-	≤70	53	
		Noon time	dB	-	-	≤70	53	
		Night time	dB	-	-	≤65	47	
	Vibration Regulation Act	Noon time	dB	-	-	≤70	36	
		Night time	dB	-	-	≤65	35	
	Measurement based on soil contamination Countermeasures Act	Tetrachloroethylene	mg/l	0.01		*Max. value at site	Max. value at observation well (located downstream of ground water)	
			Trichloroethylene	mg/l	0.01	0.37	less than 0.005	
Cis-1,2-dichloroethylene			mg/l	0.04	1.4	less than 0.005		

Note: Status of ground water contamination (Takamisawa Shinshu plant): As to contamination of ground water in which chlorine organic compounds having been found through our investigation, continuous elimination works of VOC from the water and air in the ground have been performed. We confirmed that no VOC has outflowed to outside of factory area and also no claims from neighborhood has been received.

Contact

■ Contact

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