# Fujitsu Components Group Environmental Report FY2015

The Fujitsu Components Group has been working it's environmental management policy that aims for an eco-friendly and human-friendly society by offering components that provide energy savings, utilization of renewable energies and bringing our business activities more eco-friendly.

## 1. Greeting

FY2014 was the second year of the 6th Stage of the "Fujitsu Components Group Environmental Protection Program" and we successfully achieved all targets aiming to "development and offer of eco-friendly products", "collaboration with society", "activities as good corporate citizens", "reduction of green house gas", "improvement of energy efficiency", "promotion to reduce $CO_2$ emission of business partners", and "hold down of waste generation" .

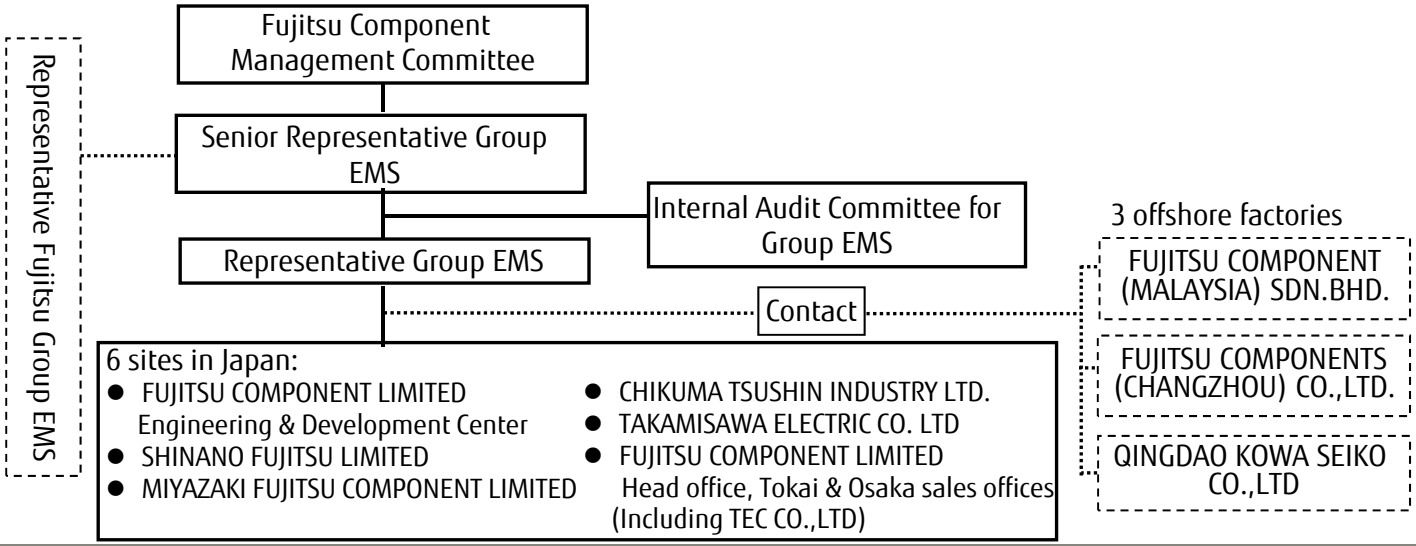
In this fiscal year, PDU (Power Distribution Units *1) which contribute to reduce the power loss during AC/DC conversion was assessed its safety and effectiveness and won the 59th Shibusawa Award*2. Also the deliveries of the relays were started for smart meter, which enables the effective use of electricity, and for regeneration system which improves fuel efficiency on vehicles.

The Fujitsu Components Group recognizes the role and responsibility toward the environment and biodiversity conservation, and contributes to a sustainable environment and society along with the FUJITSU Group's "Environmental Policy" and mid-term environmental vision of the "Green Policy 2020".

Koichi Ishizaka
President and
Representative Director

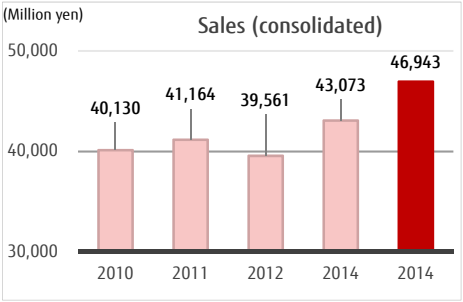
*1 : PDU was collaboratively developed with NTT FACILITIES, INC.
*2 : Shibusawa Award is the only private award in electrical safety field in Japan.

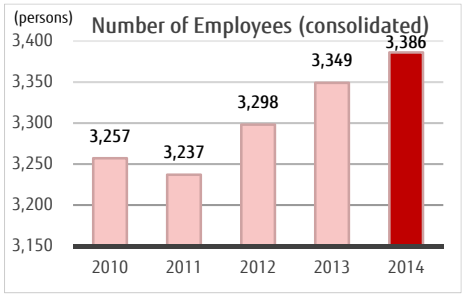
## 2. Organization of Environmental Activities



## 3. Group Profile

| | |
|---|---|
| Head Office address | FUJITSU COMPONENT LIMITED<br>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 connecting components (relays and connectors), input/output devices (touch panels, thermal printers), wireless modules and other applied electrical devices |
| Capital | 6,764 million yen (as of March 31, 2015) |
| Sales | 46,943 million yen (consolidated, FY2014) |
| Financial Year End | March 31 |
| Employees | 3,386 (consolidated, as of end of March 2015) |
| Equity Market | Second Section of the Tokyo Stock Exchange, code 6719 |
| Group Composition | The Group is composed of total 14 companies;<br>6 Japanese companies including 1 sales company, and 8 overseas companies including 5 sales companies |




## 4. Environmental Policy, Environmental Protection Program

### Fujitsu Components Group Environmental Policy

#### Philosophy

The FUJITSU COMPONENTS Group, 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 keep the best corporate activities while improving our coexistence with the environment."

As an enterprise that develops, designs, manufactures and sells electrical components, we promote environmental management to realize low carbon and affluent society in accordance with ISO14001.

#### Action Plans

- We continuously improve our environmental management system and promote the prevention of environmental pollution by affirming environmental aspects of our activities, products and services.
- We offer products that contribute to achieve both environmental and economical goals.
- We comply with various environmental laws which involve our activities, products and services and other requirements.
- We continue to ban of hazardous substances in our products as specified by Fujitsu Components Group. We do not use or include any hazardous substances in our products, nor do we discharge any hazardous substances into the environment.
- Every staff shall strive to improve the environment including climate control and biodiversity conservation through their work and as private citizens and try to diffuse enlightenment.

#### Accentuation Items

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

1. Development and provision of eco-friendly products
2. Co-operation with society and contribution to social activities as a good corporate citizens
3. Reduction of greenhouse gas (GHG) emission
4. Improvement of energy efficiency
5. Promotion of reduction of $CO_2$ emission in partner companies
6. Limitation of waste emission

#### Supplements

1. This policy is documented and made public to our employees, our group members and other parties concerned
2. The Environmental Control Division is responsible for the policies mentioned above.

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

This Environmental Protection Program states the action plan to be implemented by our group Environmental Policy and important control items. It is the medium term action plan to be achieved by FY2015.

### Development and provision of eco-friendly products

Each product family to develop at least one new eco-friendly product by FY2015.

I. Product has leading energy-efficiency. *1

II. Product's resource efficiency is increased by 10% or more compared to FY2011. *2

### Cooperation with society

We promote resource provision through collection of used stamps, eco-cap recovery etc. for the activities addressing resolution of social and environmental issues such as biodiversity conservatory.

### Activities as a good corporate citizen

We continuously enhance social contribution activities that corporate members can take back to their communities.

### Reduction of greenhouse gas (GHG) emission

We will reduce total emission amount of energy origin $CO_2$ by 27%*3 compared to FY2000 (22,777t-$CO_2$)*4 by FY2015.

### Improvement of energy efficiency

We will improve specific energy consumption*5 in a facility by an average of 1% per year.

### Promotion of reduction of $CO_2$ emission by partner companies

We will promote reduction of $CO_2$ emission by all our partner companies.

### Waste emission limits

We will generate less waste that will not exceed an average of FY2007 to FY2011 totals (839t) by FY2015.

*1: Leading products (world-first, industry-first, world-best, industry-best) in and other products which meet the criteria that requires to rank in the top 25% in the market in energy efficiency.
*2: Improvement of product's resources (smaller, lighter, thinner, reducing number of parts) or resource circulation (reducing waste amount, recycle).
*3: Target value was amended due to GHG emission increase resulting form new line adder.
*4: $CO_2$ conversion coefficient : 0.407ton-$CO_2$/MWh at FY2002 is used for power conversion coefficient.
*5: Specific energy consumption means energy consumption amount per unit such as per sales amount, per production quantity, etc.

## 6. Fujitsu Components Group Environmental Targets and Achievements

| Item | The 6th Stage Group Environmental Protection Program Goals | FY2014 | | | FY2015 |
|---|---|---|---|---|---|
| | | Targets | Results | Rating | Target |
| Social contribution activities | **Development and provision of eco-friendly products**<br>Each product family should develop at least one new eco-friendly product by FY2015.<br>i. Product having a leading energy-efficiency.<br>ii. Product's resource efficiency is increased by 10% or more compared to FY2011. | Develop min. 2 products among products family | Developed 6 products among 5 product families | Good | Develop 2 new eco-friendly products |
| | **Cooperation with society**<br>We promote the activities addressing resolution of social and environmental issues such as biodiversity conservatory. | Implement min.1 activities at each site (Total:18) | 20 activities completed | Good | Implement min. 1 activities at each site (Total:20) |
| | **Activities as a good corporate citizen**<br>We continuously enhance social contribution activities that corporate members can take back to their communities. | Implement min.1,501h in total of all sites | 2,053h performed | Good | Implement min. 1,658h in total of all sites |
| Own business activities | **Reduction of greenhouse gas (GHG) emissions**<br>We will reduce total emission amount of energy origin $CO_2$ by 27% (1) compared to FY2000 by FY2015. | Hold it down to below 16,421t-$CO_2$ | 15,617t-$CO_2$ | Good | Hold it down to below 16,578t-$CO_2$ (2) |
| | **Improvement of energy efficiency**<br>We will improve specific energy consumption in a facility by an average of 1% per year. | Improve rate min.1.99% against an average of 3 objective sites of FY2012 | Av. 11.3% improvement | Good | Improve rate min. 2.97% against an average of 3 objective sites 0f FY2012 |
| | **Promotion of reduction of $CO_2$ emission in partner companies**<br>We will promote reduction of $CO_2$ emission by all our partner companies. | Extend it to 223(91.5%) among total 223 suppliers | Confirmed 208 (92%) supplier carried program | Good | Aim 100% including new suppliers |
| | **Waste emission limits**<br>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 703.6t | 643.5t | Good | Reduce it to less than 650t |

# 7. Environmental Activities

## Development of Eco-friendly Products

We, Fujitsu Components Group strive to deliver eco-friendly products which improve the environment and commercial aspect through continuous development of top level products in use of saving energy and renewable energy markets.

| Improvements | Products | Products developed |
|---|---|---|
| Energy efficiency | Wireless modules | <920MHz band Specified low power wireless module><br>-2 time longer communication distance compared to existing products materialized.<br>-Top level power saving in the market. |
| | KVMs | <1U lift-up drawer (8 ports KVM switch built-in model)><br>-Power saving rate by 5% achieved<br>-Power saving by modifying LCD panel. |
| | KVMs | <KVM switch DVI model><br>-Power saving rate by 4% achieved<br>-Low power consumption model |
| Resource efficiency | Relays | <EV/HEV/PHV relays><br>-Weight reduction rate by 16% achieved |
| | Connectors | <High speed connector><br>-Weight reduction rate by 38% achieved. |
| | Thermal printers | <Small side panel mount printing unit><br>-Weight reduction rate by 25% achieved |

Specified low power wireless module

Small size panel mount printing unit

EV/HEV/PHV relay

## Management of restricted chemical substances in products

Chemical component information of raw and auxiliary materials used in our products have been controlled based on the reports provided by material suppliers. Products conform to any regulations/laws and customer standards are developed by reflecting such chemical information. Any new chemical substances added by European RoHS directives and REACH regulations are studied immediately after release and the conformity of those adders are reflected on our products .

## Green procurement

The procurement of all raw and auxiliary materials are made in line with "Green procurement agreement" and "Environmental common procurement specification" and actual procurement always come with certificate which guarantee non-use of restricted materials specified by Fujitsu Limited and Fujitsu Components group and AIS data*1.

We also ask all supplier partners the implementation of building the environmental management system as well as prevention of global warming and biodiversity program to further reduce the environmental load throughout supply chain.

**<Actions to Conflict minerals>**

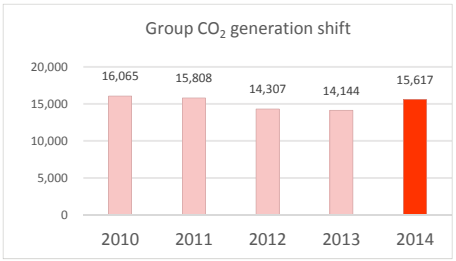
In order to supply reliable information to the customers, the usage of conflict minerals*2 on our products are investigated in line with OECD Due Diligence Guidance and CFSI (Conflict-free Sourcing Initiative).

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

*2 : 4 minerals ( Tin, Tantalum, Tungsten and gold) mined from the area Democratic Republic of Congo and neighboring countries.

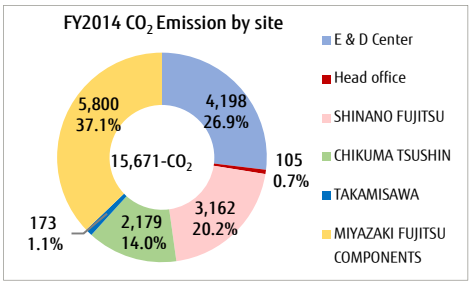
## Global warming prevention activities

FUJITSU COMPONENTS group has continuously been engaged in energy- saving activities at each site to prevent global warming and reduce costs. Once an activity has been assessed, it is shared among group factories. LED lighting is commonly introduced. Excess energy consumption by air compressors and air conditioners have been minimized by using heat insulators on heat generating machines and exhaust air ducts. Heat exchangers have been introduced to re-use the heat that is generated by the machines to warm the water.  We are trying to find and implement these new types of approaches.




Saving energy activity with combination of compressors with inverter and its demand controller
(SHINANO FUJITSU)

Green curtain for lowering temperature
(MIYAZAKI FUJITSU COMPONENTS)




Introduction of LED lighting
(SHINANO FUJITSU)

## Improvement on energy efficiency

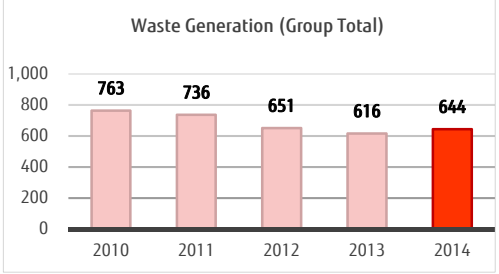
The specific energy consumption management have been performed among FUJITSU COMPONENT Engineering & Development Center, SHINANO FUJITSU and MIYAZAKI FUJITSU COMPONENTS, all of  which are specified as Type 2 designated energy management factories *1. FUJITSU COMPONENT Engineering & Development Center and MIYAZAKI FUJITSU COMPONENTS have added new production lines in FY2014 but their output did not reach to the level where those running lines have. As a result the specific energy consumption ratio have turned lower than last year. Recovery of such ratio in FY2015 are expected by pulling new lines to full capacity and adding additional production shift.

*1: Factories of which energy consumption grater than 1,500kl but under 3,000kl oil  equivalent are specified by the law.

| Site name | Method | FY2012 (Base) | FY2013 Results | FY2014 Results | FY2012 Ratio | Major activities |
|---|---|---|---|---|---|---|
| FUJITSU COMPONENT Engineering & Development Center | Energy consumption/ sales amount | 0.7710 | 0.5689 | 0.6602 | -22% | • Cooling electricity reduction by using heat exchanging with water pool.<br>• Electricity reduction by raising temperature of coolant water of module chillers |
| SHINANO FUJITSU | Energy consumption/ sales amount | 1.633 | 1.574 | 1.562 | -4% | • Reduction of electricity with the combination of air-compressors with inverter and its demand controller.<br>• Shut down of distributing switchboard in factory on non working day |
| MIYAZAKI FUJITSU COMPONENTS | Energy consumption/ production qty | 0.01577 | 0.01437 | 0.0146 | -7% | • Reduction of compressor electricity by taking corrective action on air leakage<br>• Replacement of air-conditioners to power saving type |

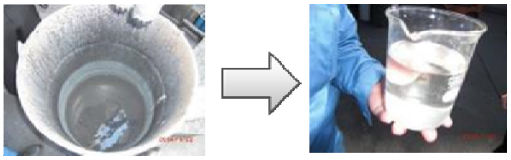
## Industrial waste reduction management

Fujitsu Components group strive to reduce their industrial waste and cost of disposal by exchanging information such as route for collection, buyers for waste and the segregation methods. Small cut glasses and sludge after plating process which cannot be recycled are the ones we have to continuously study.




Recycling of Nitrile gloves used in clean room
(FUJITSU COMPONENT Engineering & Developing Center)

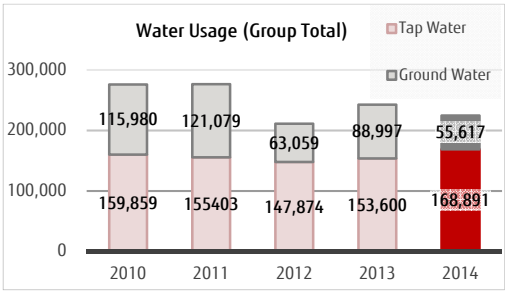
Recycle of thinner waste
(SHINANO FUJITSU)

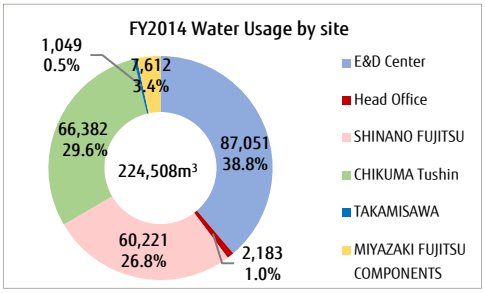


(Waste)　(Recycled)

## Water usage reduction activities

Engineering and Development center has been using pure water in their production process. We have added purification process on the part of drained water for reuse and also have made tight control on water valves on week end so that water usage proportion to the production volume. As a result of those actions, approx. 7%(18,000m$^3$) water saving compared with those of FY2013 was achieved.




## Status of Social contribution activities "Cooperation with society" "Activities as good corporate citizen"

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.

**Engineering & Development Center:**
Thinning the forest and cleaning up the town of Suzaka



**SHINANO FUJITSU:**
Removal of invasive plants such as yellow rocket and tall goldenrod

**CHIKUMA TSUSHIN & TAKAMISAWA:**
Cleaning the road around factories

**MIYAZAKI FUJITSU COMPONENTS:**
Cleanup of spawning coast of loggerheads turtles

# 8. Environmental Law Compliance

## Measured items and results

| FY2014 Measuring data | | | | | | | |
|---|---|---|---|---|---|---|---|
| Engineering & Development Center | Laws | Items | Unit | Legal threshold | Local threshold | Voluntary threshold | Result |
| | Air Pollution Control Act | Dust concentration | g/Nm³ | 0.3 | 0.3 | ≤0.1 | 0.005 |
| | | Sulfur Oxide concentration | Nm³/h | - | - | ≤2.5 | 0.043 |
| | | Nitrogen Oxide | ppm | 260 | 180 | ≤150 | 56 |
| | Noise Regulation Act | Morning, evening time | dB | 55-65 | 60 | ≤55 | 49.5 |
| | | Noon time | dB | 60-65 | 60 | ≤55 | 49.6 |
| | | Night time | dB | 50-55 | 50 | ≤47.5 | 46.9 |
| | Vibration Regulation Act | Noon time | dB | 65-70 | 65 | ≤60 | 36.4 |
| | | Night time | dB | 60-65 | 60 | ≤55 | 35.8 |
| | Sewerage Act | Hydrogen-ion concentration | pH | 5.0~9.0 | 5.0~9.0 | 5.1~8.9 | 7.2~7.4 |
| | | Biochemical Oxygen Demand | mg/l | 600 | 600 | ≤300 | 92 |
| | | Suspended Solids | mg/l | 600 | 600 | ≤300 | 7 |
| | | n-hexane extraction(mineral oil) | mg/l | 5 | 5 | ≤4 | 1.1 |
| SHINANO FUJITSU | Laws | Items | Unit | Legal threshold | Local threshold | Voluntary threshold | Result |
| | Air Pollution Control Act | Dust concentration | g/Nm³ | - | - | ≤0.18 | 0.005 |
| | | Nitrogen Oxide | ppm | - | - | ≤108 | 65 |
| | Noise Regulation Act | Morning, evening | dB | - | - | ≤70 | 56.9 |
| | | Noon time | dB | - | - | ≤70 | 58.4 |
| | | Night time | dB | - | - | ≤65 | 57.1 |
| | Vibration Regulation Act | Noon time | dB | - | - | ≤70 | 41 |
| | | Night time | dB | - | - | ≤65 | 36 |
| | Sewerage Act | Hydrogen-ion concentration | pH | 5.0~9.0 | - | 5.5~8.5 | 8.0 |
| | | Biochemical Oxygen Demand | mg/l | 600 | - | ≤550 | 84 |
| | | n-hexane extraction(animal/vegetable oil) | mg/l | 30 | - | ≤15 | 8.4 |
| MIYAZAKI FUJITSU COMPONENTS | Laws | Items | Unit | Legal threshold | Local threshold | Voluntary threshold | Result |
| | Noise Regulation Act (Obi plant) | Noise Regulation Act | dB | 50 | - | ≤49 | 48.6 |
| | | Noise Regulation Act | dB | 55 | - | ≤53.9 | 48.9 |
| | | Noise Regulation Act | dB | 45 | - | ≤44.1 | 43.8 |
| | Water Pollution Control Act (Hidakajima plant) | Hydrogen-ion concentration | pH | - | - | 6.0~8.4 | 6.2~7.8 |
| | | Biochemical Oxygen Demand | mg/l | - | - | ≤108 | 4.9 |
| | | n-hexane extraction(Mineral oil) | mg/l | 5 | - | ≤4.5 | 0.5 |
| | Private Sewerage System Act (Main plant) | Hydrogen-ion concentration | pH | - | - | 4.0~8.4 | 6.0・7.4 |
| | | Biochemical Oxygen Demand | mg/l | - | - | ≤23 | 17 |
| CHIKUMA TSUSHIN Nozawa plant | Laws | Items | Unit | Legal threshold | Local threshold | Voluntary threshold | Result |
| | Water Pollution Control Act (Hidakajima plant) | Hydrogen-ion concentration | pH | 5.8~8.6 | - | 6.0~8.4 | 7.1~7.5 |
| | | Biochemical Oxygen Demand | mg/l | 160 | - | ≤108 | 0.9 |
| | | Tetrachloroethylene | mg/l | 0.1 | - | ≤0.09 | less than 0.001 |
| | | Trichloroethylene | mg/l | 0.3 | - | ≤0.27 | less than 0.001 |
| | | Cis-1.2-dicholoethylene | mg/l | 0.4 | - | ≤0.36 | less than 0.01 |
| TAKAMISAWA Shinshu plant | Laws | Items | Unit | Legal threshold | Local threshold | Voluntary threshold | Result |
| | Noise Regulation Act | Morning, evening | dB | - | - | ≤70 | 49 |
| | | Noon time | dB | - | - | ≤70 | 50 |
| | | Night time | dB | - | - | ≤65 | 44 |
| | Vibration Regulation Act | Noon time | dB | - | - | ≤70 | 36 |
| | | Night time | dB | - | - | ≤65 | 35 |
| | Sewerage Act | Hydrogen-ion concentration | pH | 5.0~9.0 | - | 6.0~8.9 | 8.4 |
| | | Biochemical Oxygen Demand | mg/l | 600 | - | ≤300 | 5.4 |
| | | n-hexane extraction(Mineral oil) | mg/l | 5 | - | ≤4.5 | less than 1.0 |
| | Laws | Items | Unit | Legal threshold (Ground water) | *Max. value at site | Max. value at observation well (located downstream of ground water) | |
| | Measurement based on soil contamination Countermeasures Act | Tetrachloroethylene | mg/l | 0.01 | 2.3 | Less than 0.005 | |
| | | Trichloroethylene | mg/l | 0.03 | 0.3 | less than0.0005 | |
| | | Cis-1.2-dicholoethylene | mg/l | 0.04 | 1.1 | less than 0.0005 | |

*Status of ground water contamination
As to contamination of ground water with 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. We are trying to reduce the environmental contamination risks by studying new technologies available.

# Contact

## Contact

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## Local contact

| Site | Contact (General affairs) |
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| SHINANO FUJITSU LIMITED | Tel 0269-62-1155 Fax 0269-62-1232 |
| MIYAZAKI FUJITSU COMPONENTS LIMITED | Tel 0987-22-5211  Fax 0987-22-5353 |
| CHIKUMA TSUSHIN INDUSTRY CO., LTD. | Tel 0267-64-1230  Fax 0267-64-1227 |
| TAKAMISAWA ELECTRIC CO., LTD. Shinshu Plant | Tel 0267-64-1200  Fax 0267-64-1210 |
| FUJITSU COMPONENT LIMITED Head Office | Tel 03-3450-1601  Fax 03-3437-2370 |



**FUJITSU COMPONENT LIMITED**

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Published by: Engineering & Development Center
Environmental  Management Department,
Quality Assurance Group
Edited by: Marcom Department, Marketing Division.
Published on October 13, 2015
Period of report: April 1, 2014 to March 31, 2015
(Includes FY2015 plan)
URL: http://www.ffujitsu.com/jp/fcl/about/environment/e-report/