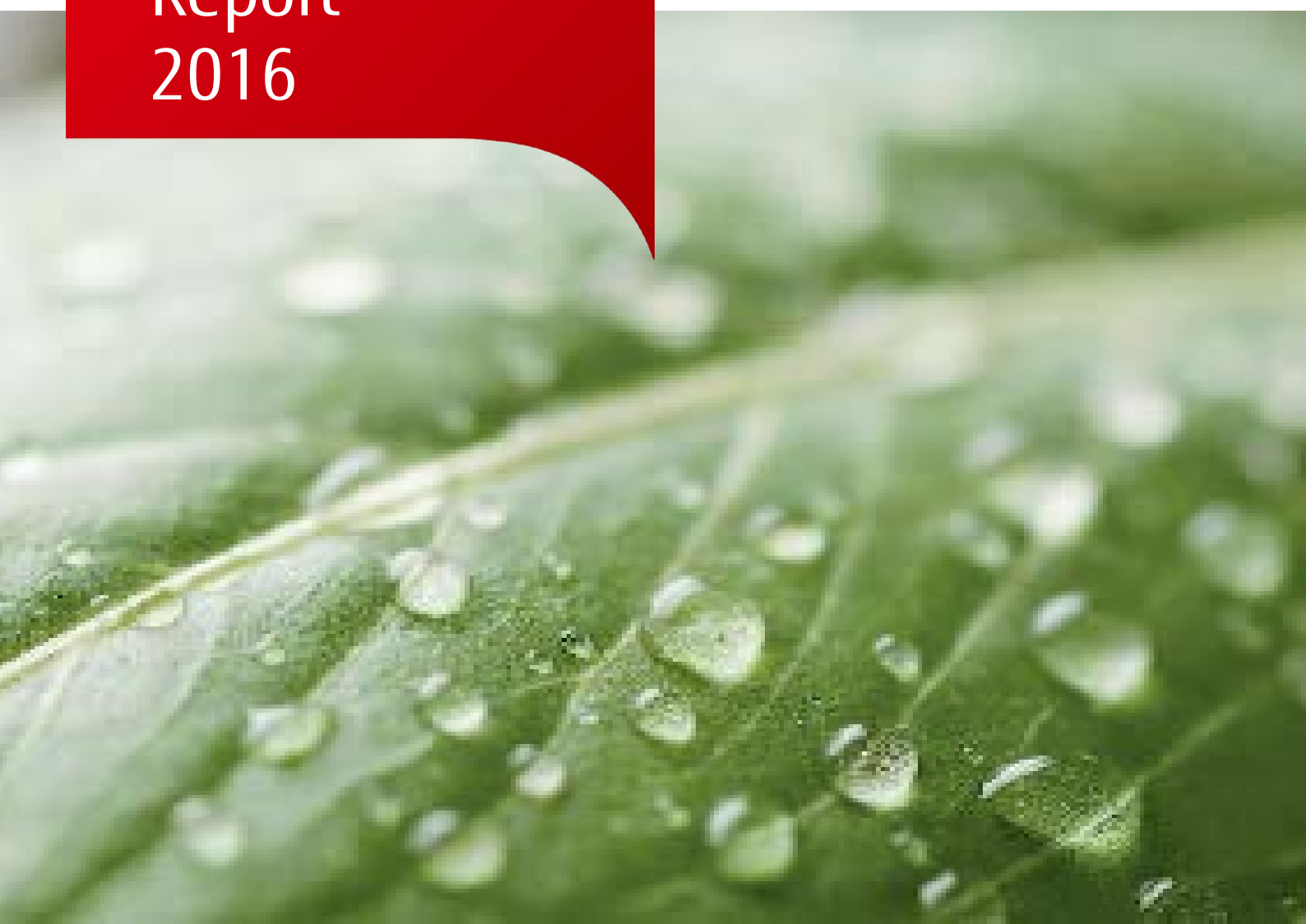


Aizu Fujitsu
Semiconductor
Group
Environmental
Report
2016



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- This Environmental Report covers the environment-related thinking, initiatives, and accomplishments of the Aizu Fujitsu Semiconductor Group, which handles semiconductor business for the Fujitsu Semiconductor Group.
 - Aizu Fujitsu Semiconductor Group is the only organization covered by this report.
 - Details of activities in FY 2015 (April 1, 2015, through March 31, 2016) are recorded herein. However, this will also include some activities from before April 1, 2015, and after March 31, 2016.

Provision of high quality with stable manufacturing capability—that is our foundation



President,
Aizu Fujitsu Semiconductor Limited

Atsuo Shimizu

On January 4 of this year, the Aizu Fujitsu Semiconductor Group newly added Aizu Fujitsu Semiconductor Probe Limited, and we are now conducting business as a foundry company with a four-company system.

Through the sincerely keeping our promises to customers, tireless self-improvement, and valuing mutual trust, we aim to be our customer's No.1 partner.

Our factories are located amidst the bounteous natural blessings of Mt. Bandai and Lake Inawashiro. The people of the Aizuwakamatsu area and elsewhere warmly support us.

Into the future, we will continue to care for the environment and seek harmony with the local community as we grow together.

Aiming to be an environmentally-friendly wafer foundry company.



President
(executive in charge of environmental affairs),
Aizu Fujitsu Semiconductor Manufacturing Limited

Hitoshi Hori

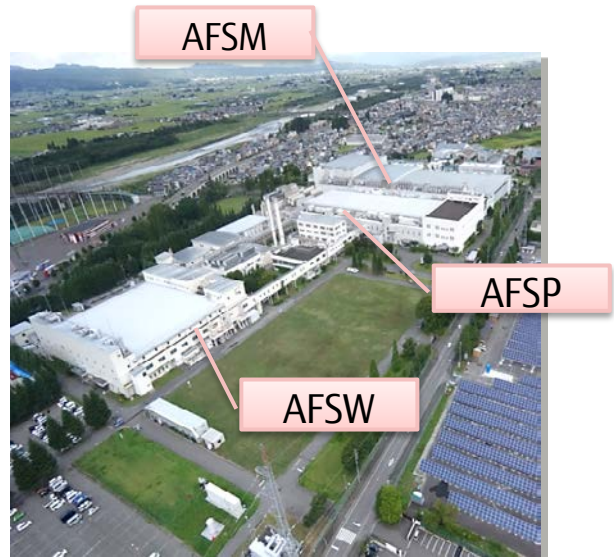
FY 2015 was the final year of the Fujitsu Group Environmental Action Plan (Stage VII). Based on this plan, we have carried out a variety of environmental initiatives through our business activities, and as a result we have achieved all of our targets. From FY 2016, we will start a new environmental action plan.

Based on this action plan, we will continue efforts to realize highly competitive "Green Factories" with an eye toward reducing chemicals and wastes, and, in the case of greenhouse gases (CO₂ from energy consumption, PFCs), not only total amounts but also their intensity (i.e., energy or materials for manufacturing and testing a single wafer).

Corporate Profile Aizu Fujitsu Semiconductor Group

The Aizu Fujitsu Semiconductor Group works to reduce the environmental impact of its business activities and promotes an Environmental Policy that contributes to achieving a "low-carbon," prosperous future.

- Corporate name : Aizu Fujitsu Semiconductor Limited
- Head Office :
No.4 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan
- President : Atsuo Shimizu
- Date Established : December 1, 2014
- Business description :
Management of wafer foundry and wafer testing businesses



ISO 14001 certification status

As a member of the Fujitsu Group, Aizu Fujitsu Semiconductor Group has received certification under the international standard for environmental management systems (EMS), ISO 14001. Please see our website for details.

<http://www.fujitsu.com/jp/group/fsl/about/environment/>

Certification body JACO/DNV

Registration number: EC98J2005

Certified on: September 12, 1995

Updated on: March 23, 2015

Valid till: March 22, 2018

ISO 14001 certification status

Aizu Fujitsu Semiconductor Group	Extent of certification
Aizu Fujitsu Semiconductor Limited No.4 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan (AFSL)	Manufacturing (integrated)
Aizu Fujitsu Semiconductor Wafer Solution Limited No.3 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan (AFSW)	Manufacturing
Aizu Fujitsu Semiconductor Manufacturing Limited No.6 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan (AFSM)	Manufacturing
Aizu Fujitsu Semiconductor Prove Limited No.4 Kogyo Danchi, Monden-Machi, Aizu Wakamatsu City, Fukushima Prefecture, Japan (AFSP)	Wafer Testing

Environmental Policy

The Aizu Fujitsu Semiconductor Group promotes environmental management based on the Fujitsu Semiconductor Group's Environmental Policy.

Fujitsu Semiconductor Group Environmental Policy

With our customers, we contribute to the protection of a rich global environment, using state-of-the-art technology to provide semiconductor devices with superior environmental characteristics.

■ Operational Principles

By applying the following principles, we work to prevent pollution of the global environment and reduce the environmental burden of our products throughout their lifecycles, including development, procurement, manufacture, sales, usage, and disposal :

1. We develop products with outstanding environmental characteristics.
2. We promote proper management of chemical substances contained in products, packaging materials, etc.
3. We promote measures to counteract global warming, effective utilization of water and resources, and proper management of wastes.
4. We promote proper management of chemical substances to prevent pollution of the global environment.
5. We conform to environmental regulations around the world and keep our promises to customers.
6. We promote activities to make environmental and social contributions, and to preserve biodiversity.
7. We effectively and continually improve our environmental management system, and work hard to improve our environmental performance.

Policy Priorities for the Aizu Fujitsu Semiconductor Group

The Aizu Fujitsu Semiconductor Group is focusing on the following priorities, in line with the Fujitsu Semiconductor Group Environmental Policy.

- Reduction of emissions of greenhouse gases (CO₂, PFCs [perfluoro compounds *1])
- Stronger management of chemicals (PRTR*2 VOC*3)
- Reduction of amount of waste produced, and promotion of recycling
- Promotion of effective utilization of water resources

■ Environmental Management Activities

We pursue environmental management activities by setting clear numerical objectives in the Aizu Fujitsu Semiconductor Group Environmental Targets and Goals based on the Fujitsu Group's Green Policy 21, Green Policy 2020, and Environmental Action Plan and by systematically and continuously working to improve.

■ Strict Compliance with Environmental Laws and Regulations

In FY 2015, there were no compliance violations in the Aizu Fujitsu Semiconductor Group. In FY 2015 we formulated rules for compliance assessment, and strengthened systems for preventing compliance violations.

■ Environmental Promotion Committee

The Environmental Promotion Committee meets regularly twice per year for The Environmental Management Representative (EMR) to gather managers from each division and the status of achievement of the entire Group's Environmental Targets and Goals and any issues with them. Information on subjects such as global environmental regulations and trends is exchanged in the committee meetings. This helps with engagement in new environmental activities and promotes compliance.

■ Environmental Audits

Along with performing annual internal environmental audits, we work to strengthen the audits. We take steps such as training internal environmental auditors in order to make them more competent and thus make the audits more effective. We also receive external audits from JACO (Japan Audit and Certification Organization for Environment and Quality) in order to maintain ISO 14001 certification.

*1 PFC : Perfluoro Compound

*2 PRTR : Pollutant Release and Transfer Register

*3 VOC : Volatile Organic Compound

FY 2015 Priority Environmental Activities

Environmental Education and Environmental Risk Reduction

■ Environmental Education

In order to disseminate to its employees the details of the Environmental Action Plans it sets every three years, the Fujitsu Group has been carrying out environmental education for all Group company employees since 1995. In addition to that, the Aizu Fujitsu Semiconductor Group carries out its own annual environmental education for Group employees, all of whom have completed it. In addition, employees in charge of environmental work are given specialized training, such as internal auditor training and waste management practitioner training. Furthermore, the Group works to raise each employee's environmental consciousness by giving them environmental education with content in accordance with business type and condition in the semiconductor business.

Global warming
 Wastes
 Effective utilization of
 water resources
 Biodiversity, etc.



■ Environmental Risk Reduction

(1) Painting building roofs

In FY 2015, we began painting the roofs of all buildings to prevent elution of zinc due to deterioration of roof materials, and to conserve energy through the heat shielding effect.

Surface temperature
 54~64°C



Before roof painting



Surface temperature
 44~47°C



After roof painting

(2) Measures to address environmental risks of outdoor piping

To address risks such as soil contamination due to pipe damage, we are working in a planned fashion to convert outdoor pipes to steel (i.e., from plastic to metal) and provide racking.

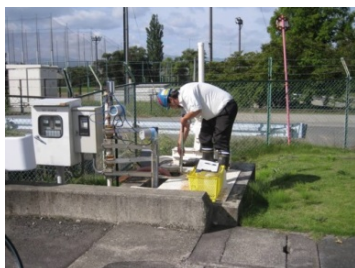


Renewal of outdoor piping



■ Efforts to realize safe and secure factories

To proactively prevent the occurrence of environmental risks, we periodically carry out environmental analysis of effluent, groundwater, and similar factors in accordance with various environmental laws and regulations. Also, to maintain and improve a safe workplace environment, we conduct safety and health patrols, risk assessments at all workplaces, and hold safety conferences with partner companies.



Environmental measurement:
 Water quality at rainwater gate



Safety conference

FY 2015 Priority Environmental Activities

Environmental Action Plan

The Aizu Fujitsu Semiconductor Group makes continuous efforts to control the consumption of resources, including energy and chemicals, in its wafer foundry business activities. It contributes to the reduction of Environmental impacts of its customers and society in order to help realize a prosperous, "low-carbon" future.

■ FY 2015 Activities Results

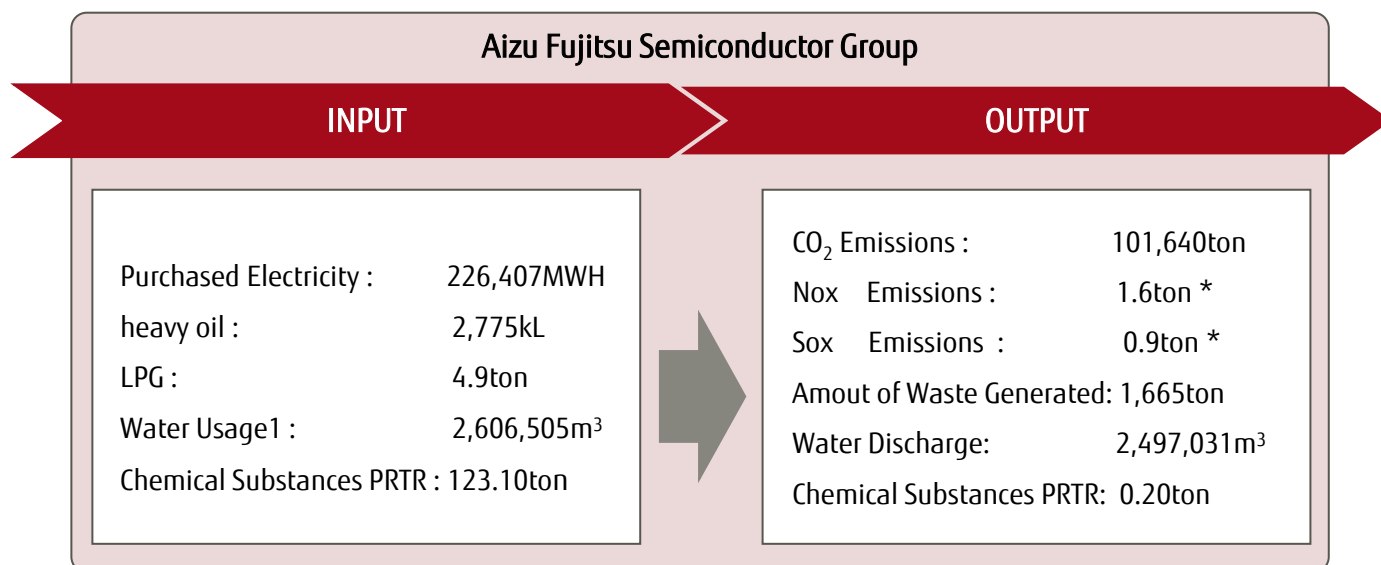
The Aizu Fujitsu Semiconductor Group achieved all goals based on the Environmental Action Plan, in categories such as reduction of greenhouse gas (GHG) emissions, control of chemicals and waste generation volume, and effective utilization of water resources.

*GHG: Green House Gas. This includes not only CO₂ but also chlorofluorocarbons.

○:Goal Achievement

Categories	Items		FY 2015 Targets	FY 2015 results
Our Business	Reduction of greenhouse gas (GHG) emissions	①	Reduce CO ₂ emissions from energy consumption to 112,386 tons- CO ₂ or less.	○ 101,640t-CO ₂
		②	Reduce PFC emissions to 75,708 t-GWP or less.	○ 74,812t-GWP
	Effective use of water resources	③	Implement at least 1 effective uses of water resources measures	○ 1 measures
Continuous targets	Restriction on PRTR law-controlled chemical substance discharges	④	Restrict discharges of VOCs to 6,519 kg or less	○ 1,855Kg
	Restriction on the discharge volume of waste products	⑤	Restrict discharges of waste products to 2,025 tons or less	○ 1,665 tons

■ FY 2015 Key Performance



* Nox and Sox emissions are combustion exhaust gases from boilers.
 Nitrogen oxide
 Sulfur oxide

Global warming countermeasures

■ Reduction of CO₂ emissions from energy consumption

- Energy conservation measures at factories

Since the Great East Japan Earthquake in March 2011, the Aizu Fujitsu Semiconductor Group has been taking action to strengthen summer energy conservation. Measures implemented include energy conservation inspections, energy conservation patrols, on-site elimination of energy wasting, identification of means of energy conservation, and employee education activities.

The Group is also acting proactively to reduce energy use by installing inverters on motors, adopting LED tube lights in cleanrooms as well as general areas, etc.

- LED tube lights in cleanroom



White

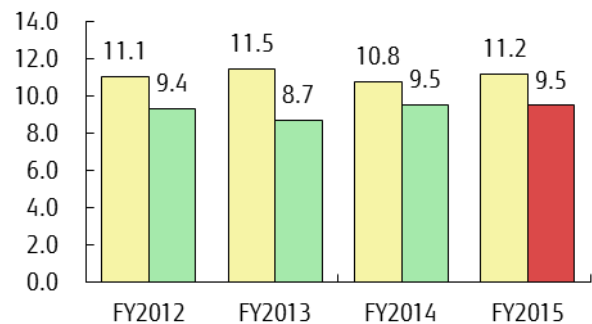


Yellow

- CO₂ emissions from energy consumption

■ :Goal ■ Actual results (FY 2012–2014) ■ Actual results (FY 2015)

(10,000 tons CO₂)



■ PFC emission reduction (Greenhouse gases other than CO₂)

The Aizu Fujitsu Semiconductor Group works to reduce emissions of PFC gas, which has a high global warming potential, from cleaning gas and so on used in manufacturing processes. In FY 2015, the emissions increased due to operational upgrades, but we are continuing efforts to reduce emissions by sequentially installing PFC abatement equipment.

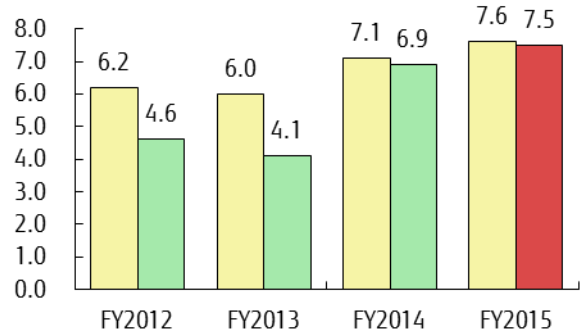
- PFC abatement equipment



- PFC emission reduction

■ :Goal ■ Actual results (FY 2012–2014) ■ Actual results (FY 2015)

(10,000 tons GWP)

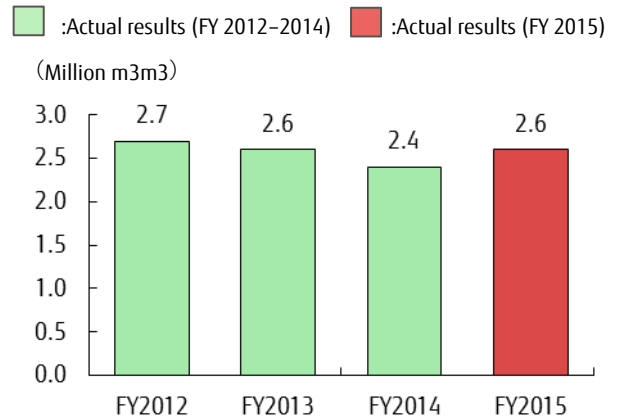


Effective utilization of water resources and control of chemicals and waste

■ Effective utilization of water resources

- Optimization of amount of water used
From FY 2013 to FY 2014, water usage was reduced by about 210,000 m³ through measures such as optimizing the flow rate of pure water in the manufacturing process. In FY 2015 too, efforts were made to save water by, for example, optimizing washing water in dishwashing machines of the employee cafeteria.
These initiatives to save water will continue in FY 2016 and beyond.

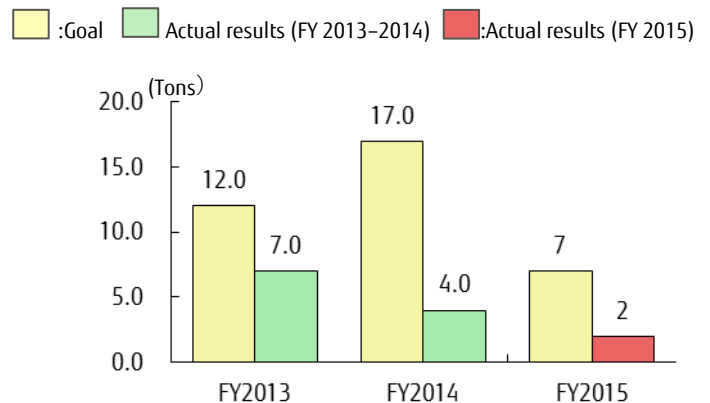
• Water utilization volume



■ Control (management) of chemical substances emissions

- Emission reduction activities
Since FY 2013, we have been working to reduce VOC emissions contained in exhaust gas. VOCs are also being properly removed with organic exhaust gas treatment equipment.

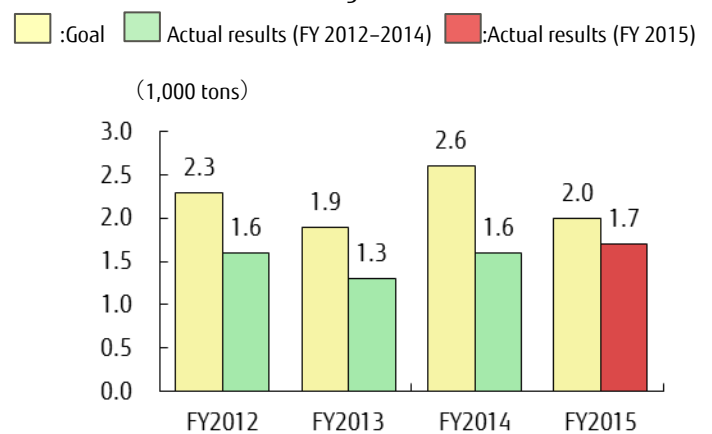
• VOC emissions



■ Control (management) of volume of waste generated

- Attaching a cost to waste alkali
In FY 2015, the amount industrial waste produced was reduced by about 41 tons by attaching a cost to concentrated waste alkali.
In the future, the Group will continue to actively promote the 3Rs (reduce, reuse, recycle) and reduce waste generation.

• Volume of waste generated



Environmental Communication

Social Contribution Activities

The Aizu Fujitsu Semiconductor Group is closely involved in community initiatives such as clean-ups near its factories and planting greenery to protect the natural environment. The Group values its relationship with the local community and will remain involved in various such activities.

- Clean-up around the factory (May)



- Gathering lavender flowers (July—participation from the industrial park and other sites)



- Flower Garden Contest (August)



- Clean Fukushima (September—around JR Nish-Wakamatsu Station)



- Aizuwakamatsu City Environmental Festival (September)



- Spot-billed duck raised on the factory grounds



Aizu Fujitsu Semiconductor Limited

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<http://www.fujitsu.com/jp/group/afsl/en/about/environment/>

