Semiconductor devices are used in every facet of our lives, from data terminals such as smartphones and personal computers, home appliances including televisions and air conditioners through to automobiles, trains and other vehicles. Providing the technological base for such devices, silicon wafers are critically important in maintaining today’s standard of living.

SUMCO is a specialized silicon wafer manufacturing company. With the aim to be a good corporate citizen and contribute to the development of industry and the improvement of people’s quality of life by supplying silicon wafers, the SUMCO Group has been promoting CSR activities.

Corporate Governance

The SUMCO Group endeavors to maintain fairness, efficiency and transparency in its management by further enhancing its corporate governance.

In March 2016, SUMCO shifted from a Company with a Board of Corporate Auditors to a Company with an Audit and Supervisory Committee. It has been a year since the new system was put into place, whereby certain Directors who are Audit and Supervisory Committee Members with voting rights on the Board of Directors supervise execution of operations by directors. We appreciate the resulting enhancement in the effectiveness of audit and supervision.

Also, in conjunction with the transition to a Company with an Audit and Supervisory Committee, SUMCO increased the number of Independent Outside Directors from three to four. We recognize that this has made it possible for the Board of Directors to engage in discussions supported by a greater breadth of knowledge and insight with a greater variety of perspectives, and we value the further activation of the Board of Directors and the enhancement in fairness, efficiency and transparency in our management.

Compliance

The SUMCO Group follows the SUMCO Charter, a code of conduct that all officers and employees must comply with.

The SUMCO Charter broadly covers various social norms that ought to be followed by companies, such as fair business activities, blocking relationships with anti-social forces, compliance with security trade control, etc., as well as compliance with laws and regulations.

Similar charters are implemented by all companies in the SUMCO Group. Our group-wide efforts will continue to ensure that our corporate activities are sound and in accordance with social norms.

Risk Management

The SUMCO Group has a global market share of approximately 30%, meaning as if our silicon wafers are used in one in every three to four electronic devices around the world. The stable supply of products is therefore our most critical management challenge and an important social responsibility. In addition to managing risks to ensure stable supply, SUMCO takes steps to maintain and improve its business continuity plans that include supply chain-related measures.

Environmental Conservation

The production of silicon wafers requires plenty of electricity, water, and chemical substances. The SUMCO Group strives to reduce its use of each of these, as well as the amount of industrial waste generated, by setting reduction targets for each item. We also ensure that harmful chemical substances and waste are handled and managed properly to minimize the environmental risks resulting from our business activities.

With Our Stakeholders

The SUMCO Group aspires to promote social development through the supply of silicon wafers while endeavoring to contribute to the well-being of the stakeholders who support us.

“Work style reform” is a current topic in society. As part of our efforts to maintain an environment that supports the balancing of work and child-rearing, we opened “SUMCO Nursery School Imari” at the Kyushu Factory (Imari) in November 2016. Part of its enrollment capacity is allotted to non-SUMCO employees in the local community. By making it open to the public, we hope to contribute to the revitalization of the area.

Going forward, we will engage in various types of dialog with stakeholders in order to proactively leverage their opinions and desires within our management activities.

Aspiring to Serve as a Good Corporate Citizen

SUMCO Vision

1. World’s Best in Technology
2. Deficit-Resistant Even during Economic Downturns
3. Empower Employee Awareness of Profit
4. Competitiveness in Overseas Markets

CEO & Chairman of the Board
Mayuki Hashimoto

COO & President
Michiharu Takii
Editorial Policy
The objective of this report is to convey the SUMCO Group’s stance on CSR and report its activities to stakeholders in order to enhance their understanding and earn their support. This report has been prepared with reference to portions of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, Version 4.

Period Covered
January 2016 to December 2016
Data for periods outside the above are noted as such.

Organizations Covered
SUMCO Corporation and its Group companies, “SUMCO” and “the Company” as used in this report refers to SUMCO Corporation. The Financial Highlights cover SUMCO Corporation and its consolidated subsidiaries. Other performance data outside the above scope are noted as such.

Publication
May 2017
(Planned publication of the next issue: May 2018)

Note Regarding Forward-Looking Statements
Projections, predictions, prospects, and other forward-looking statements contained in this report are made by the Company based on the information available at the time of the release of the statements and therefore are subject to risks and uncertainties. Due to various factors, actual results may vary significantly from results anticipated in the forward-looking statements.
In daily life, we hardly ever see a silicon wafer, but they are used in every sort of electronic device and are indispensable in our lives.

All sorts of technological innovations have enabled the evolutionary development of electronic devices, which have added immeasurably to our lives and greatly facilitated cultural progress.

Some products have become smaller, and others larger; some lighter, some stronger, some faster.

Engineers are carrying on the battles of their predecessors and are going beyond the achievements of those persons, creating revolutionary change. The continued evolution of the silicon wafer is a precondition for taking up this battle.

SUMCO sees itself as being engaged in this battle, as a corporation dedicated to contributing to all sorts of technological innovation on behalf of the advancement of society and the development of humanity.

### Manufacturing Silicon Wafers

Silicon wafers are required to be ultra-pure, at the level of no more than one part per quadrillion. As electric trains that use power of over 1000 V, requires special know-how for the stable operation of semiconductor devices.

### Four Quality Requirements for Silicon Wafers

There are mainly four quality requirements for silicon wafers as described below. A silicon wafer is an agglomeration of various advanced technologies and its production requires extensive expertise. Sharing of information across the team and accumulation of techniques are therefore essential.

#### Crystal Perfection

As semiconductor circuits are becoming increasingly miniaturized, silicon wafers are required to be extremely flat and smooth. To illustrate this concept, if we enlarged a 300-mm wafer to the size of 300 meters (making it as big as the Tokyo Dome), the quality requirement is equivalent to permitting a maximum of only 10 grains of sand, each with a diameter of 0.04 mm, across the entire area.

#### Flatness

The number of minute particles adhering to the surface of silicon wafers is required to be as close to zero as possible. To illustrate the concept, if we enlarged a 300-mm wafer to the size of 300 meters (making it as big as the Tokyo Dome), the quality requirement is equivalent to permitting a maximum of only 10 grains of sand, each with a diameter of 0.04 mm, across the entire area. Wafers used for image sensors of digital cameras are required to be ultra-pure, at the level of no more than one part per quadrillion.

#### Cleanliness and Elimination of Contamination

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#### Semiconductor Devices

Devices called power semiconductors are used to control electric power. These are technically complex devices, making this a specialized field. Power supply control for heavy electric machinery, in particular, such as electric trains that use power of over 1000 V, require special know-how for the silicon wafers, as well.

#### Chip

Large numbers of silicon wafers are sliced into wafers, which are then polished and cleaned to create a flat, mirror-like surface.

The production of silicon wafers is divided into two processes: the monocrystalline silicon process and the wafer process. In the monocrystalline silicon process, polycrystalline silicon is melted to produce monocrystalline silicon ingots. In the wafer process, these monocrystalline silicon ingots are sliced into wafers, which are then polished and cleaned to create a flat, mirror-like surface.
SUMCO Vision

SUMCO Strives to be an Excellent Company through the Combined Power of All its Employees.

1 World’s Best in Technology

SUMCO’s technologies and ability to ensure a stable supply of products are praised by our customers the world over. In fact, our outstanding performance has been officially recognized by many semiconductor manufacturers with their excellent supplier awards. Using this recognition as a springboard to an even higher level of success, we will make greater efforts to promote cooperation with our customers based on long-term commitment and mutual trust, and to enhance our technological capabilities.

In March 2017, we received the Supplier Continuous Quality Improvement (SCQI) Award for the 15th consecutive year from Intel Corporation, the world’s largest semiconductor manufacturer. In February 2017, we received the Excellent Performance Award for the third consecutive year from Taiwan Semiconductor Manufacturing Company Limited (TSMC), the world’s largest foundry. In February 2017, we also received the Best Partner Award for the fourth consecutive year from Samsung Electronics Co., Ltd., the world’s largest semiconductor memory manufacturer. SUMCO has therefore achieved the feat of simultaneously winning awards for three consecutive years from the top three companies in semiconductor sales.

2 Deficit-Resistant Even during Economic Downturns

The silicon wafer industry is characterized by major short-term changes in its business environment. The SUMCO Group has been making progress toward achieving a structural operation system in order to avoid deficits even during economic downturns, and we’ve been pursuing the improvement of the break-even point through cost reduction.

With our continuous efforts in cost reduction, quality improvement and product differentiation from competitors, we will further strive to keep making profits in whatever economic situation we find ourselves.

3 Empower Employee Awareness of Profit

Rather than the president or executives, it is the employees that are the actual driving force of a company. All employees of the SUMCO Group share the SUMCO Vision, have high profit and cost awareness, and work to identify and solve issues. In hopes of further stimulating their awareness and activities, the CEO & Chairman of the Board and COO & President visit each plant frequently to hold management briefings in order to share the issues facing the Group in the current business environment.

Our vision of becoming the “World’s Best in Technology” and “Deficit-Resistant Even during Economic Downturns” cannot be realized unless all employees are highly motivated and committed to working hard for the goal. In order to increase employee’s motivation, SUMCO evaluates efforts and accomplishments appropriately with a variety of awards.

Furthermore, with the aim of cultivating a workplace in which all employees can work comfortably, SUMCO has been taking further steps toward supporting employees raising children to find a greater work-family balance. As part of the project, SUMCO offers various work styles with flexible time shifts and has set up an in-house nursery school at the Kyushu Factory (Imari), our largest manufacturing site.

4 Competitiveness in Overseas Markets

The SUMCO Group has plants in the United States, Taiwan, and Indonesia, as well as a network of sales offices in various parts of the world, allowing us to supply silicon wafers on a global scale. Nearly 80% of our sales come from the overseas market and we are proud to inform you that all of the top 10 global companies in semiconductor sales are customers of the SUMCO Group. The solid and longstanding relationships with these companies are the greatest advantage of us. To further reinforce this advantage, we actively recruit employees with outstanding talent regardless of nationality.

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CSR Management

SUMCO’s Stance on CSR

Based on SUMCO’s aim of playing a leading role in the development of industry and the improvement of living standards through the supply of silicon wafers, an essential substrate material for semiconductor devices, SUMCO aspires to serve society as a good corporate citizen. As such, SUMCO undertakes a wide spectrum of CSR activities.

We believe that companies are expected to meet their corporate social responsibilities from two perspectives. Firstly, companies have an obligation to ensure compliance, safety, and environmental sustainability as corporate citizens, and are responsible for maintaining and improving the quality of their products and services and returning profits to society as part of their business activities. This obligation and responsibility are the foundation of CSR, and companies need to have effective corporate governance to fulfill them. For this reason, SUMCO regards corporate governance and corporate ethics as fundamental management issues.

Secondly, on top of this foundation, companies also need to proactively conduct social contribution activities outside their business domains. These activities include environmental maintenance, educational and cultural initiatives, and support for employees’ volunteer activities. In this regard, SUMCO actively engages in local beautification projects and educational and cultural activities with the aim of becoming a good partner for local communities.

Relationships with Stakeholders

SUMCO endeavors to fulfill its responsibilities to stakeholders, who support its business activities.

Corporate Governance

Corporate Governance Structure

1. Basic Stance on Corporate Governance Structure

SUMCO is organized as a company with an Audit and Supervisory Committee. By adopting this system, the effectiveness of supervision has been enhanced through audits conducted by Directors who are Audit and Supervisory Committee Members and have voting rights at Board of Directors meetings. In addition, the effective internal controls has been enhanced through audits conducted with the support of the Internal Audit Department.

2. Composition and Roles of the Board of Directors

The SUMCO’s Board of Directors comprises six Directors (excluding Directors who are Audit and Supervisory Committee Members) and six Directors who are Audit and Supervisory Committee Members (of whom four are Independent Outside Directors). The Board of Directors is comprised of inside Directors with a proven record of performance in their respective areas of responsibility and outstanding management abilities, and Outside Directors with expert knowledge and abundant experience, based on the basic stance of the Company to ensure achieving an overall balance and diversity in the knowledge, experience, and capabilities of the Board of Directors.

In accordance with legal statutes, the Articles of Incorporation, and the Rules of the Board of Directors, the Board of Directors makes decisions on management strategy, management plans, and other such important matters relating to business. It receives reports from every Director on the status of the execution of duties, and it exercises supervision of the status of important matters of business execution at affiliated companies, compliance, internal controls, and risk management. The Board of Directors, with the participation of Independent Outside Directors, also engages in the free exchange of opinions regarding the appropriate evaluation of company performance and related matters, and reflects that evaluation in the personnel administration of top management members.

It is our basic company policy that matters relating to the general meeting of shareholders, matters relating to financial results and so on, matters relating to management plans, matters relating to internal controls, and the execution of other such important operation will be decided after enough discussion by the Board of Directors, including the Independent Outside Directors. For this reason, the Articles of Incorporation do not stipulate that decisions on the execution of important business can be delegated to each Director.

3. Independent Outside Directors

SUMCO has appointed four Independent Outside Directors. One is an attorney; one is a management consultant who has experience working as a certified public accountant; one is a person with wide experience and knowledge cultivated through experience in the public sector as well as many years of experience in corporate management; and one is an individual with broad experience and knowledge relating to international finance as well as corporate management, and knowledge of corporate governance.

In an effort to ensure the ongoing growth of the SUMCO Group and increase its corporate value of the medium- to long-term, each Independent Outside Director provides advice on management policy and improvement based on their own knowledge and engages in supervision of management from the perspective of minority shareholders and other stakeholders. They participate in the appointment of candidates of Director and other important decision-making by the Board of Directors, and supervise business execution by the Board, top management and others as well as conflicts of interest between the Company and top management and others.

4. Audit and Supervisory Committee

The Company’s Audit and Supervisory Committee is composed of six Directors who are Audit and Supervisory Committee Members (of whom the majority of four are Independent Outside Directors). In order to ensure the effectiveness of Audit and Supervisory Committee activities, permanent Audit and Supervisory Committee Members are put in place by the mutual vote among Audit and Supervisory Committee Members. In addition, it is the Company’s basic policy to take steps to ensure that at least one Audit and Supervisory Committee Member who has considerable knowledge and experience pertaining to finance and accounting. In addition, the Company established the Audit and Supervisory Committee Office and assigns staff to support the activities of the Audit and Supervisory Committee and to facilitate the smooth conduct of audits.

The Audit and Supervisory Committee exercises its statutory right of investigation and audits the Directors’ execution of their duties from the viewpoints of appropriateness and conformance with laws and regulations and the Articles of Incorporation by inspecting and confirming the status of compliance with laws and regulations, Articles of Incorporation, and so on, and by monitoring and otherwise supervising the development and operational status of the system of internal controls, including the internal controls relating to financial reporting.

For more details on SUMCO’s corporate governance policies, please visit the Company’s Corporate Governance Basic Stance website.

Details on the Company’s corporate governance reports can be confirmed at the Japan Exchange Group website’s Corporate Governance Information Search.
Nomination and Remuneration Committee
In an effort to further enhance its corporate governance, SUMCO has established a Nomination and Compensation Committee with Independent Outside Directors as key members to serve as a discretionary advisory body for the Board of Directors.

The Nomination and Compensation Committee receives inquiries from the Board of Directors regarding the process for selection of candidate Directors of SUMCO (excluding Directors who are Audit and Supervisory Committee Members), their qualifications, the reasons for their designation as candidates, the structure of executive remuneration, and related matters. The committee examines the appropriateness and other aspects of the matter of inquiry and, also taking evaluations of company performance into account, delivers its findings. The Board of Directors, receiving the findings of the Nomination and Compensation Committee, designates candidate Directors (excluding Directors who are Audit and Supervisory Committee Members) and decides on their remuneration and related matters.

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Fair Business Activities/Anti-Corruption
In the light of prohibition against corruption including bribery, SUMCO clearly provides for compliance with law and prohibition against providing unlawful profits to public servants in SUMCO Charter, and further sets forth “Rules on Handling Grant of Benefits” to prevent bribes and unfair transactions.

Under SUMCO’s Rules on Handling Grant of Benefits the following are prohibited: (1) to make contributions and donations to politicians in violation of the Political Funds Control Act and/or the Public Officers Election Act of Japan; (2) to offer favorable benefits in the form of excessive entertainment or gifts, with the aim of seeking return or receiving favors, in connection with duties of civil servants; (3) to deal with antisocial forces or groups; (4) to give financial benefits concerning the exercise of rights of shareholders; (5) to offer excessive entertainment or gifts, beyond the extent permitted by social ethical standards; and (6) to provide any type of illegal benefit or favors or engage in transactions which could be recognized as unfair or unjust under social ethical standards. We have also set specific criteria for the activities listed below and permit these activities to be undertaken only when the criteria are met and proper approval is given. The activities are: making donations; providing sponsorship; payment of entertainment expenses; giving celebratory or condolence gifts; purchasing advertising; subscribing to or purchasing newspapers, magazines, or other publications; payment of membership dues to external organizations; and outsourcing. SUMCO posts “Rules on Handling Grant of Benefits” on its website and other means, distributing explanatory compliance cards.

Activities on Intellectual Property
As its basic policy, the SUMCO Group attaches importance to the protection of intellectual property and utilizes it as a strategic tool for the Group’s business while at the same time respecting the intellectual property rights of third parties.

Under this policy, we have established internal rules to define how we obtain, maintain, and utilize intellectual property rights; prevent infringements; and provide training to employees. The Intellectual Property Division actively conducts various intellectual property operations in cooperation with other departments. Obtained intellectual property rights are reviewed periodically to eliminate obsolete intellectual property so as to keep costs at a reasonable level.

Information Management
SUMCO clearly stipulates the appropriate use and management of information in the SUMCO Charter of Corporate Conduct as well as has established “Rules on Information Management” along with other related regulations and guidelines to prevent the leakage of trade secrets and customer information.

The Company takes steps to appropriately manage personal information by establishing “Rules on Personal Information Management” in accordance to the Act on the Protection of Personal Information.

SUMCO undertake tangible measures to prevent information leakage by managing various computer system-related risks involving external attacks via the Internet, unauthorized usage, and the spread of computer viruses.

In an effort to broaden employee awareness of the SUMCO Charter of Corporate Conduct, we appoint a Chief Compliance Officer to serve as the company-wide supervisor, monitor the Company’s compliance with the charter, and conduct regular training sessions for all employees on the charter. Meanwhile, a supervisor in each department regularly reports to the Chief Compliance Officer on how well the charter is observed within his or her department, and the Chief Compliance Officer in turn reports these findings to the Board of Directors.

Each Group company also maintains its own code of conduct, which is similar to the charter, to establish a framework for corporate ethics and develop a compliance structure.

Internal Hotline
An internal reporting hotline has been in place since 2006. We also established an appointed outside lawyer to whom an internal report is to be made. We ensure that all Company employees know how to use the hotline and contact the lawyer by, among other means, distributing explanatory compliance cards.

Export Control
To ensure export control compliance aimed at maintaining international peace and security, SUMCO established and implemented its Security Export Control Rules. The Company screens customers and transactions under the Rules, and with regard to export of goods or provision of technology to non-residents, it checks whether the due process under the Rules are followed before commencing the export or technology provision.

SUMCO Charter of Corporate Conduct
SUMCO believes that to expand its business and achieve sound growth, executives and employees need to comply with both laws and the underlying spirit as well as adhering to ethical and other social norms in order for the Company to be accepted by the global community.

We understand that none of tantalum, tin, gold nor tungsten is necessary to the functionality or production of a product manufactured by us, and that thus our product is not subject to the Conflict Mineral regulations under the Dodd-Frank Wall Street Reform and Consumer Protection Act of the United States of America in 2010.

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Risk Management

SUMCO has established its Risk Management Basic Rules which set forth fundamental matters concerning risk management. An information communication route to be used in the event of materialization of a risk as well as procedures to respond to a disaster, including the setting up of emergency response headquarters have been done in accordance with the rule.

Risk Management Basic Policies

To ensure the protection of all resources necessary for the continuation of business activities, including personnel, property, funds, and public trust, SUMCO regularly promotes measures to:

1. Predict risks and prevent their occurrence (preventive measures against risk occurrence); and
2. Minimize damage in the event of risk materialization (response measures to minimize damage).

Our basic policy in promoting risk countermeasures is as follows:

a. Prioritize risks by likelihood of occurrence and severity of impact to ensure optimum allocation of management resources and maximize effectiveness of measures.

b. Minimize damage and loss by preventing the suspension or discontinuation of business activities to ensure business continuity in the case of an accident or other emergency situation.

c. Discuss and decide on company-wide risk management policies.

d. Discuss and decide on risk prevention measures.

e. Discuss how to respond to new risk events.

Business Security Committee (BSC)

Established to take charge of SUMCO’s risk management as a whole, the Business Security Committee (BSC) is responsible, among other things, for formulating the Company’s risk management policies and assessing the progress of risk management.

With regard to specific risks, such as those involving information leakage, the financial market, and product quality, appropriate controls are established under dedicated internal rules.

**BSC’s Structure and Objectives**

**Structure**

- **Business Security Committee (BSC)**
  - Chair: CEO & Chairman of the Board
  - Members: CDO & President; Executive Vice President; Executive officers in charge of a Division; Officers in charge; Secretariat: General Affairs Division

**Departments**

- **Group companies in Japan**
- **Overseas Group companies**

**Objectives**

The BSC undertakes the following risk management activities.

- Discuss and decide on company-wide risk management policies.
- Discuss and decide on risk-prevention measures.
- Discuss how to respond to risk events.
- Share information on risk management.
- Promote risk management awareness across the Company.
- Assess and follow up on the progress of risk management.

Ensuring Business Continuity

Our Risk Management Basic Rules define business continuity as an important management issue, and we have been developing and improving our business continuity plan accordingly. The BSC, explained above, formulates improvement plans and monitors and reports on the progress of improvement. Based on this, each department takes steps to strengthen risk management and responses to risk events.

In fiscal year 2016, SUMCO TECHXIV Corporation’s Nagasaki Plant conducted a disaster preparedness drill that simulated the occurrence of an earthquake of upper 6 magnitude on the Japanese scale.

Training for Emergency Situations

The SUMCO Group assesses and identifies potential risks that may occur in conjunction with earthquakes, typhoons, explosions, fires, chemical spills and other emergencies, and plans and conducts exercises every year for the risks identified as serious by providing training to related personnel and in accordance with manuals.

After each exercise, we identify problems and review procedures for continuous improvement to make our response as quick and appropriate as possible.

We also conduct joint emergency response exercises with chemical suppliers to ensure that we can safely and smoothly handle chemical spills discovered after a delivery to one of our sites.

Safety Confirmation System

In the event of a major earthquake or other large-scale disaster, stricken regions are expected to experience temporary paralysis of social infrastructure and telephone service disruptions. To address this issue, the SUMCO Group introduced “Safety Confirmation System” which is able to quickly and reliably provide information of the status of employees working in Japan.

This system has improved our ability to quickly determine the status of employees and their families as well as provide necessary communications during emergencies. We think these functions help speed up post-disaster recovery efforts.

Training for Total Evacuation

The SUMCO Group conducts comprehensive drills, nighttime/non-workday drills, and non-comprehensive drills (firefighting/reporting/evacuation) every year.

As part of the comprehensive drill, in addition to joint training with the fire station, there is also training for first-aid firefighting, the use of fire hydrants by the Company’s firefighting team, and operation of the Company’s own fire-engine, which is conducted on the hypothesis of a fire caused by an earthquake.

For the nighttime/non-workday drill, we identify and address problems that cannot be discovered on workdays or during the day.

Computer System-Related Disaster Countermeasures

For data servers and other core systems used companywide, the Company has established equivalent back up servers for use during disasters in separate locations from where active servers are installed. In addition, the Company has upgraded systems involving regularly backing up server functions in order to maintain operations even in the event that active servers are damaged by a major earthquake.

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**Major Risks Recognized in Risk Management Basic Rule**

<table>
<thead>
<tr>
<th>Risks on General Management</th>
<th>Risks on Accidents and Disasters</th>
<th>Risks on Discontinuation of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risks on Compliance</td>
<td>Risks on Information</td>
<td>Risks on Intellectual Properties</td>
</tr>
<tr>
<td>Risks on Human Resources and Employment</td>
<td>Risks on Products and Services</td>
<td>Risks on Safety and Sanitation</td>
</tr>
<tr>
<td>Risks on Taxation, and Accounting</td>
<td>Risks on Credit Limit</td>
<td></td>
</tr>
</tbody>
</table>

---

**BSC's Structure**

- Chair: CEO & Chairman of the Board
- Members: CDO & President; Executive Vice President; Executive officers in charge of a Division; Officers in charge; Secretariat: General Affairs Division

**Departments**

- **Group companies in Japan**
- **Overseas Group companies**

**Objectives**

- Discuss and decide on company-wide risk management policies.
- Discuss and decide on risk-prevention measures.
- Discuss how to respond to risk events.
- Share information on risk management.
- Promote risk management awareness across the Company.
- Assess and follow up on the progress of risk management.

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**Safety Confirmation System**

- Protection against cold
- Training in the use of aluminum foil bags and blankets
- Training in the assembly and use of portable toilets

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**Computer System-Related Disaster Countermeasures**

- Evacuation drill
- Training in the use of outdoor fire hydrants
Environmental Management

SUMCO Environmental Policies

1. Basic Environmental Philosophy
As a manufacturer of high-quality silicon wafers for semiconductors and of quartz crucibles, SUMCO has established the following action guidelines and is committed to self-initiated and sustained environmental conservation activities to pass on the Earth’s irreplaceable environment to future generations.

2. Environmental Action Guidelines
1. Through our business activities, we shall pursue activities with an emphasis on the following points.
   (1) We shall act to conserve electricity and other energies consumed by our business activities, thereby curtling emissions of greenhouse gases.
   (2) We shall strive to reduce waste and increase the recycling and reuse rates.
   (3) We shall strive to reduce chemical substances used in our business activities.
   (4) We shall thoroughly manage harmful chemical substances and waste, thereby reducing the risks to the environment.
2. We shall abide by environment-related laws and regulations, bylaws, and other agreed requirements.
3. We shall strive to prevent environmental pollution in our entire business activities and undertake efforts to protect the global environment and coexist in harmony with local communities.
4. We shall define environmental objectives and targets, and by periodically reviewing these objectives and targets, shall promote continuous improvement of our environmental management system.

Environmental Management Structure

The environmental management officer and the environmental managers at the sites report to the environmental management executive officer and in accordance with their respective roles, responsibilities, and authorities. Information and instructions are communicated and shared at the meetings of the Environmental Management Committee and the Environmental Management Committee at each site.

Environmental Management Structure

SUMCO’s Environmental Objectives

We set our environmental objectives for the 2015-2017 period, and work to achieve those objectives. The previous year’s performance defines the base year. The status of our performance is checked semiannually, and our target figures are reviewed as necessary.

Environmental Education

Education Targeted at Suppliers to Prevent Environmental Accidents
Environmental education is provided to suppliers of chemicals and other products and to industrial waste treatment firms to ensure the prevention of environmental accidents and compliance with laws and regulations.

Environmental Audits

Internal Environmental Audit
Internal environmental audits are implemented every year for all organizations subject to the Company’s environmental management system. The results are reported to top management and reflected in the following year’s activities for continuous improvement of the environmental management system.

Environmental Management System Audit
Audits are implemented every year and a renewal audit is conducted every three years by an external independent auditor.

Compliance with Environmental Legislation

The SUMCO Group ensures that Group companies keep themselves updated about the requirements of laws, regulations, and agreements and that they comply with such requirements.

We also ensure that the Group complies with overseas chemical substance regulations, namely, the Restriction on Hazardous Substances (RoHS) Directive and the Regulation on Registration, Evaluation, Authorisation and Restriction of Chemical Substances (REACH).

Contents of Education

1. Request for vehicle inspection to prevent the leakage of fuel, oil, etc.
2. Importance of SUMCO personnel being present at the time of delivery/collection and request that their instructions be followed
3. Request for inspection of industrial waste collection vehicles, particularly to prevent leakage or dripping of sludge, liquid waste, etc.
4. Report of previous environmental accidents that occurred at the Company
Environmental Impact of Business Activities

The depletion of energy resources, global warming, threats to biodiversity, and other environmental problems are having an increasingly serious impact on the global environment. SUMCO promotes environmental considerations and the reduction of environmental impact across its business activities with a particular focus on electric power, chemical substances, waste, and wastewater, which the Company has identified as significant environmental aspects.

- Environmental assessment
- Safe raw materials
- Use of recycled materials
- Improved transport system
- Use of reusable containers
- Reuse of materials
- Energy conservation
- Reduced use of chemical substances
- Reduced water consumption
- Compliance with laws and regulations
- Reduced emissions of pollutants
- Reduced amount of waste
- Green procurement
- Use of renewable energy
- Reduced CO2 emissions from transport

Environmental Impact of Business Activities in 2016 (SUMCO Group in Japan)

Trends of Environmental Impact

Japan

- CO2 emissions (Japan) (thousand tons per year)
- Water consumption (Japan) (million m3 per year)

Overseas

- CO2 emissions (overseas) (thousand tons per year)
- Water consumption (overseas) (million m3 per year)

Progress of Countermeasures against Soil and Groundwater Contamination at the Noda Office

In a voluntary survey implemented at the Noda Office in 2005, it was found that amounts of volatile organic compounds (VOC) and fluorine exceeded the soil and groundwater environmental standard values. We have ever since been introducing countermeasures in consultation with concerned authorities and others. At present, we are working to prevent the spread of and recover contaminated substances by using a pumping well set up near the boundary of the plant grounds.

Accumulated Amount of Contaminated Substances Recovered Annually from Groundwater at the Noda Office

- Fluorine
- Tetrachloroethylene
- CCl3, CCl2F, CClF3

Input

<table>
<thead>
<tr>
<th>Energy</th>
<th>Electricity</th>
<th>1,338 GWh (crude oil equivalent)</th>
<th>—</th>
<th>357,104 kL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Industrial water</td>
<td>9.4 Mm3</td>
<td>Tap water</td>
<td>0.2 Mm3</td>
</tr>
<tr>
<td></td>
<td>PRTR-regulated substances</td>
<td>3.2 Mm3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Output

<table>
<thead>
<tr>
<th>Business activities</th>
<th>CO2 emissions (Japan) 771,000 t-CO2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Breakdown: Electricity 699,000 t-CO2</td>
</tr>
<tr>
<td></td>
<td>Fuel 72,000 t-CO2</td>
</tr>
<tr>
<td></td>
<td>CO2 emissions from transport 4,000 t-CO2</td>
</tr>
</tbody>
</table>

Water Discharged:

- Ocean: 5.2 Mm3 |
- Rivers: 3.2 Mm3 |
- Sewerage: 3.1 Mm3 |

Waste:

- Ordinary business waste: 175 t |
- Industrial waste: 19,519 t |
- Specially controlled industrial waste: 2,998 t |

PRTR-regulated substances:

- Amount handled: 881.0 t |
- Amount released: 8.1 t |
- Amount transferred: 299.8 t |

*CO2 emissions from electricity are calculated using the CO2 emission coefficient of each electric power supplier.
CO2 Reduction through Modal Shift to Ship Transport in the Field of Logistics

SUMCO used to rely solely on airfreight for the transportation of silicon wafers to overseas markets. However, to reduce both CO2 emissions and transport costs, we have been promoting a modal shift to ship transport for some of our products since 2009. Since ship transport requires longer transportation lead time and involves changes in the transportation environment, we conduct tests before switching to ship transport to confirm that the quality of products is not affected, as well as consulting with customers.

Combating Global Warming

The production of silicon wafers requires a significant amount of electricity. To reduce this power consumption, the SUMCO Group makes every effort to streamline production and make it more rational. When it comes time to update production and utility facilities, we replace them with energy-saving and high-efficiency alternatives.

In offices, lighting is turned off during lunchtime and other breaks, and air conditioners are set at a reasonable temperature to save energy and reduce CO2 emissions.

CO2 Emissions (SUMCO Group)

- 2012: 903
- 2013: 902
- 2014: 1,044
- 2015: 1,066
- 2016: 1,091

Electric Power Consumption (SUMCO Group)

- 2012: 1,657
- 2013: 1,699
- 2014: 1,676
- 2015: 1,697
- 2016: 1,697

Reduction of Waste

To reduce the large volume of sludge generated at our plants, efforts are currently being made to optimize the quantity of chemicals injected for wastewater treatment. As for waste oil, waste acid, waste alkali, waste plastics, and other waste, we are promoting both their recycling and their conversion into valuable resources.

Waste Reduction through the Adoption of Reusable Containers

We are replacing the containers used to ship 300-mm diameter silicon wafers with reusable alternatives to reduce post-delivery waste. The percentage of reusable containers used for shipment in 2016 was 64.2%.

Before introducing reusable containers, we conduct tests to ensure that the quality of the products is not affected.

Effective Use of Water Resources

Industrial water and groundwater are purified through filtering and ion exchange for use at our plants. SUMCO uses the water left after the purification process to cool utility facilities and dilute wastewater treatment chemicals rather than discharging it. We also collect the water used to rinse silicon wafers and for other purposes to conserve as much water as possible for recycling.

Waste Recycling Rate (SUMCO Group [Japan])

- 2012: 78.6%
- 2013: 77.3%
- 2014: 82.4%
- 2015: 83.7%
- 2016: 84.6%

Amount of Disposal (SUMCO Group [Japan])

- 2012: 26,318 t
- 2013: 20,344 t
- 2014: 22,994 t
- 2015: 22,994 t
- 2016: 22,692 t

Amount of Water Supplied and Discharged (SUMCO Group [Japan])

- 2012: 14,129 thousand m3
- 2013: 12,280 thousand m3
- 2014: 13,078 thousand m3
- 2015: 12,765 thousand m3
- 2016: 11,255 thousand m3

CO2 Emissions per Silicon Wafer Manufactured in Japan

- 2014: 30.5 kg-CO2/wafer
- 2015: 27.4 kg-CO2/wafer
- 2016: 18.5 kg-CO2/wafer

CO2 Emissions per Silicon Wafer Manufactured Overseas

- 2014: 30.8 kg-CO2/wafer
- 2015: 32.2 kg-CO2/wafer
- 2016: 32.2 kg-CO2/wafer

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Chemical Substance Management

The Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register/PRTR Law) requires businesses to report the amounts of any designated chemical substances released into the environment or transferred.

In 2016, there were 10 substances subject to reporting under the PRTR Law; we succeeded in reducing 3 substances from the previous year. The majority of these were substances contained in cleaning agents and fuels.

### List of Substances Subject to PRTR Reporting (Class 1 Designated Chemical Substances: 1 ton or more per year; Specific Class 1 Designated Chemical Substances: 0.5 tons or more per year)

- **20** 2-aminoethanol
- **30** Linear alkylbenzene sulfonate (LAS)
- **71** Ferric chloride
- **80** Xylene
- **88** Hexavalent chromium compound
- **296** 1,2,4-Trimethylbenzene
- **300** Toluene
- **374** Hydrogen fluoride and its water-soluble salts
- **407** Poly (oxyethylene) allyl ether
- **410** Poly (oxyethylene) nonylphenyl ether

#### Amount of PRTR-Regulated Substances Released and Transferred (SUMCO Group [Japan])

<table>
<thead>
<tr>
<th>Substance</th>
<th>Amount handled</th>
<th>Amount released</th>
<th>Amount transferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmospheric</td>
<td>Public</td>
<td>Waters</td>
<td>Soil</td>
</tr>
<tr>
<td>2001 2-aminoethanol</td>
<td>13.80</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>3001 Linear alkylbenzene sulfonate</td>
<td>1.60</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7101 Ferric chloride</td>
<td>6.20</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8001 Toluene</td>
<td>70.90</td>
<td>1.20</td>
<td>0.00</td>
</tr>
<tr>
<td>8801 Hexavalent chromium compound</td>
<td>0.70</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2960 1,2,4-Trimethylbenzene</td>
<td>80.00</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>3000 Toluene</td>
<td>7.10</td>
<td>1.00</td>
<td>5.20</td>
</tr>
<tr>
<td>3740 Hydrogen fluoride and its water-soluble salts</td>
<td>642.30</td>
<td>0.40</td>
<td>0.00</td>
</tr>
<tr>
<td>4070 Poly (oxyethylene) allyl ether</td>
<td>1.80</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4100 Poly (oxyethylene) nonylphenyl ether</td>
<td>57.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>881.10</strong></td>
<td><strong>2.70</strong></td>
<td><strong>5.40</strong></td>
</tr>
</tbody>
</table>

*The amount handled is not equal to the total amount of released and transferred because some substances were released after decomposition and detoxification.*

#### Environmental Impact (SUMCO Phoenix Corporation)

- **Energy Conservation**
  - Due to SUMCO’s efforts to improve energy efficiency continued in 2016, the amount of electric power consumption has slightly decreased in spite of increased production.
  - The use of variable-frequency drive motors continued to be expanded.
  - The use of energy-saving lighting continued to be expanded.
  - The operational efficiency was maximized.

- **Reduction of Water Consumption**
  - Water is an important resource used in silicon wafer manufacturing processes. In light of this, we have been undertaking various measures over the past few years to increasingly reuse water while decreasing the volume of water used.

- **Waste and Chemical Substances**
  - In fiscal year 2015, the Company began measures focused on reducing waste materials/residue containing arsenic as well as effluent. Continuing these efforts in fiscal year 2016 resulted in a slight decline in the volume of toxic waste materials.
  - The focus of reduction activities was placed on major sources of waste, such as arsenic-containing residue and waste water.
  - Scrap materials were recycled and reused.
  - Monthly report to management on the total amount of hazardous waste.
Interaction with Customers

Quality Control System
Maintaining and enhancing product reliability and safety is one of our most important social responsibilities.

The SUMCO Group works hard to supply high-quality products that will satisfy customers under our Group-wide unified Quality Policy. We control quality throughout all processes from design and development to production and shipment under a quality management system based on ISO 9001 and ISO/TS 16949 standards across all Group companies, including those abroad, so as to enhance the safety and reliability of our products.

We have also built an internal quality auditing system to ensure continuous improvement of the quality management system.

Our silicon wafer production sites in Japan and abroad are certified to ISO 9001 and ISO/TS 16949.

SUMCO Group’s Mission Statement and Quality Policy and Targets
It is the mission of the SUMCO Group to be the world’s No.1 silicon wafer supplier through technology and service for continuous improvement of the quality management system.

It is the quality policy of the SUMCO Group to deliver a world-class quality and world-class reliability through anticipation of problems caused by internal factors and taking measures to prevent recurrence.

The targets are shared across the SUMCO Group.

Quality Education
To enhance the reliability and safety of products, it is necessary to continuously improve awareness and skills of both workers and their supervisors. For this reason, we have developed quality education programs for each job and level of employee and assigned instructors for each education program to each silicon wafer production site in Japan to provide necessary education whenever needed.

We hold a total of 390 seminars focusing on awareness enhancement at our plants in Japan in fiscal year 2016. We also provide assistance for quality education at our plants in other countries.

Response to Quality Problems
Should a plant become the subject of a customer complaint or experience an abnormality or other quality problem, the plant handles the problem immediately, investigates the cause, and takes measures to prevent recurrence.

Then, the Quality Assurance Department holds a meeting to discuss and determine the best known method (BKM) to prevent recurrence and shares it with all of the Group companies to prevent similar problems from occurring at other plants in Japan and abroad.

Improvement of Customer Satisfaction
Customer Satisfaction Survey
To maintain our “first call” status among our customers, evaluations received from customers are shared with relevant departments for continuous improvement and analyzed regularly from four different aspects: quality, cost, delivery, and service (QCDS).

The results of analysis are shared among sales & marketing and other relevant departments for inclusion in improvement plans to further enhance customer satisfaction.

Flow for Sharing Customer Satisfaction (CS) Evaluation Information

Communication with Customers
SUMCO actively promotes interactive communication with customers through technical communication meetings in and outside of Japan with the aim of grasping customer needs at an early stage, accomplishing product development swiftly, and offering products that meet customer needs.

We consider technical communication meetings as opportunities to obtain a fair evaluation of our products and to earn the trust of our customers not only by presenting suggestions for use of our proprietary technologies but also by grasping our customers’ needs quickly and accurately, reflecting that grasp in our product delivery performance, and confirming those points and providing follow-up accordingly. The customer needs that we identify at technical communication meetings are constantly incorporated into products to improve their quality. Beyond this, customer feedback is invaluable for creating roadmaps for technological development to improve precision and differentiate products as well as for investigating business expansion based on market trends. The Company undertakes technical communication meetings with the aim of further improving customer satisfaction and product quality.

In addition, we always provide the best information during our communications with customers while being mindful of maintaining compliance.

Ensuring the Safety of Products
Management of Chemical Substances Contained in Products
SUMCO ensures that the chemical substances regulated by law or those that customers have asked us to eliminate or reduce the use of are managed properly according to internal rules and standards.

Submission of Safety Data Sheets (SDS)
SUMCO makes available safety data sheets (SDS) based on JIS Z7253 to provide information on the related hazards of chemical substances used by the Company and instructions on how to handle them safely.

SUMCO Corporation CSR Report 2017
**Interaction with Suppliers**

**Purchasing Policy**
We ensure that our purchasing is based on mutual trust and fair transactions with suppliers. We also collaborate with our suppliers to together actively promote compliance with laws, regulations and social norms, support global environmental conservation, and conduct other activities to fulfill our social responsibilities.

**CSR Procurement**
SUMCO promotes responsible procurement to fulfill our social responsibilities across our entire supply chain. Together with our suppliers, we pursue procurement that gives due consideration to human rights, work environments, safety and health, environmental conservation, and other issues to ensure that customers can rely on our products and enhance the satisfaction of various stakeholders.

**Promotion of Our CSR Policy**
Through periodic briefings to suppliers and daily procurement activities, we request our suppliers to make voluntary efforts to promote CSR-oriented management.

Specifically, we distribute to each supplier a copy of our Supplier Handbook, which includes a section on CSR as well as our Purchasing Policy and requests to suppliers. The Supplier Handbook is also posted on the procurement website for easy reference at any time.

The Supplier Handbook also contains, as an attachment, guidelines on CSR activities that we invite our suppliers to voluntarily conduct which we have prepared and is based on the Electronic Industry Citizenship Coalition (EICC) Code of Conduct. Suppliers are requested to utilize these guidelines for their own CSR management practices and to also encourage their secondary and tertiary suppliers to use and follow the guidelines.

In addition, we asked our major suppliers to fill out a self-assessment questionnaire that we had prepared in accordance with the EICC Code of Conduct and checked the collected questionnaires to evaluate the current situation regarding the suppliers’ CSR practices. Based on the results, we undertake CSR audits that include field audits of suppliers.

**Strengthening of Business Continuity Plans for Material Procurement**
In addition to well-planned emergency preparedness, such as maintaining an optimum inventory that matches the level of risk as well as sourcing across multiple channels, we also have a system in place that enables us to investigate the impact of a disaster or accident immediately after it takes place. At the same time, we will also source from alternative suppliers, adopt alternative materials, and take every other measure possible for procurement in the event of an emergency to minimize the effect on production.

**Social Activities**
We will review inventory quantities, storage sites, transportation methods, and others for each type of material whenever necessary.

**Source investigation and risk response**
We will investigate and confirm production sites and sources of major items and respond according to the level of risk involved.

**Maintenance, enhancement, and review of business continuity plans for each item procured**
We will develop business continuity plans for each major item so that we can properly respond to the occurrence of any risk.

**Risk assessment of suppliers**
We will periodically conduct checks on our main suppliers with respect to their financial condition, production systems, business continuity plans, and others and respond appropriately depending on the results.

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**Major Articles of CSR Questionnaire**
1. Human Rights and Labor:
   - Freely Chosen Employment
   - No use of Child labor
   - Limitation of Working Hours
   - Lawful Wages
   - Humane Treatment
   - Non-Discrimination
   - Freedom of Association

2. Health and Safety:
   - Control of Occupational Safety
   - Preparedness for Emergency
   - Prevention of Occupational Injury and Illness

3. Environment:
   - Compliance with Environmental laws and regulations
   - Pollution Prevention and Waste Reduction
   - Control of Energy Consumption and Greenhouse Gas Emission

4. Ethics:
   - Compliance with Laws
   - Fair Business Activities

5. Business Continuity

6. Contribution to Society

7. Management System
Interaction with Shareholders and Investors

**Basic Policy on Information Disclosure**

SUMCO believes timely and appropriate disclosure of corporate information to investors is a core element in ensuring a sound stock market. The company shall commit itself to speedy, accurate, and fair disclosure of corporate information while always adopting the perspective of investors. Corporate information that is useful in investor decision-making shall be actively disclosed even when not mandated by laws and regulations.

**Communication with Shareholders and Investors**

**General Meeting of Shareholders**

SUMCO positions General Meeting of Shareholders as the occasion where important decisions on the Company’s policies and other matters are made as well as an opportunity to promote shareholders’ understanding of the Company. The notice of convocation, in both Japanese and English, is posted on our website. We also effort to provide explanations of the details of each agenda item and answer questions asked by shareholders during meetings in as clear a manner as possible by utilizing narrated video footage.

**IR Activities**

SUMCO’s basic policy on investor relations is to ensure fair, impartial, and timely disclosures of the Company’s management, financial performance, and other corporate information to allow investors to evaluate the Company’s value fairly. We also ensure that opinions from investors are reflected in our management for the continuous enhancement of our corporate value.

The English and Japanese version of documents are published simultaneously to ensure fair disclosure of information for both Japanese and overseas shareholders and investors.

The Timely Disclosure Network (TDnet) of the Tokyo Stock Exchange is utilized to disclose information that needs to be disclosed in a timely fashion, and documents are posted both in Japanese and English simultaneously on our website. Annual Report and Message to Shareholder are also published to convey messages from top management and report business performance and conditions to help investors develop a better understanding of the Company.

**Message to Shareholders**

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Interaction with Local Communities

**Participation in Cleanup and Beautification Activities**

SUMCO’s Chitose Plant (Chitose City, Hokkaido Prefecture) is carrying on a clean-up program on approximately 1.5 km of sidewalks along the main roads of the Chitose Industrial Complex where the plant is located. Plant members pick up empty cans and trash that have been discarded, as well as fallen leaves and other refuse, to keep the sidewalks pleasant for joggers and people who walk there on the way to work and school. The program will also be continued with the aim of creating a roadside environment where people will be less likely to discard refuse.

The JSQ Division (Akita City, Akita Prefecture) participates with local residents and companies in a clean-up activity for areas along the Omono River organized by the city every year.

The Yonezawa Plant actively engages in various environmental activities in cooperation with other companies in the Hachimanpara Industrial Complex in which the plant is located. These activities include cleaning up areas along major roads and planting seasonal flowers in median strips of roads inside the park, with the local government and a local elementary school also taking part.

At SUMCO TECHXIV Corporation’s Nagasaki Plant (Omura City, Nagasaki Prefecture), many employees participate in the concerted cleanup efforts for the Omura Bay area, hosted by the Society to Beautify Omura Bay, which is organized by municipalities and others in the area. The event is held twice a year.

Together with nearby companies, SUMCO TECHXIV Corporation’s Miyazaki Plant (Miyazaki City, Miyazaki Prefecture) is involved in a twice-yearly cleanup activity for Kyotake-cho named as ‘Kyotake-cho KINRIN Clean Activity’, the town in which the plant is located, as well as a cleanup activity for the Kyotake River every October.
Interaction with Local Communities

◆ Support for a Vocational Facility for People with Disabilities
At the Yonezawa Plant (Yonezawa City, Yamagata Prefecture), used PET bottles and empty cans are collected from the plant and homes of employees and provided, via a recycling company, to a vocational facility for people with disabilities to help increase employment opportunities for such people. Using the money received from the recycling firm for the sale of such bottles and cans, the plant also periodically purchases useful items and donates to the facility.

◆ Joint Fire Drill with a Social Welfare Facility
At SUMCO TECHNOV Corporation’s Nagasaki Plant (Omura City, Nagasaki Prefecture), employees participate in a joint emergency drill based on the scenario of a fire at a nearby social welfare facility once a year.

◆ Participation in Local Traffic Safety Campaigns
SUMCO’s Chitose Plant (Chitose City, Hokkaido Prefecture) participates in a traffic safety campaign undertaken during the traffic safety campaign week each spring and autumn. Participation involves the employees lining up along a road to remind drivers and pedestrians about traffic safety.

◆ Participation in Local Events
The Barajima Kanto Group, headed by SUMCO’s JSQ Division (Akita City, Akita Prefecture), participated in the Akita Kanto Skill Competition held at the Akita Kanto Festival, one of the three major traditional festivals in the Tohoku Region, and won the first prize in the Owaka freestyle group category.

In the final, when the five team members successfully connected the relayed Kanto poles (long lantern bamboo poles) into one within the time limit, there was a lot of applause and cheers from the audience who were fascinated by the dynamic performance.

On the final night of the festival, the Kanto pole of the Barajima Kanto Group was decorated with a lantern in honor of their achievement.

“The Kanto Skill Competition takes place every year with the aim of preserving pole skills and features musical accompaniment called "hayashi." Owaka, Chuwaka, Shouwaka, and Youwaka. Owaka is the heaviest and longest among the four, weighing 50 kg and being 12 m long.

◆ Cooperation and Participation in Sports Events
SUMCO cooperates and participates in local sports events. The Imari SUMCO Kyushu Factory (Saga Prefecture) co-sponsored the IMARI HALF-MARATHON every year in the distribution of runner bibs.

In 2017, more than 3,000 participants attended the competition and they ran through the city in the early spring weather.

On February 5, 2017, the Imari road relay race team from the SUMCO Kyushu Factory took part in the 70th Tozai Matsura Relay Race competition (sponsored by the Saga Shimbun), achieving great results just as they did in the previous year.

This region-invigorating competition with its long-standing tradition is supported by the participation of local and corporate teams.

To give a boost to the community event as one of the companies in Imari City, the SUMCO Kyushu Factory (Saga Prefecture) participates in an annual event, the “Imari Autumn Festival—Imari Dance in ALL,” hoping to make a contribution to the vitalization of the region.
Interaction with Employees

 доволь

Respect for Human Rights
The SUMCO Group holds a meeting of the Human Rights Awareness Promotion Committee, made up of representatives from all Group companies, every year to ensure that human rights awareness-raising activities are conducted on an ongoing basis throughout the Group. At the meeting, the policy for activities for the coming fiscal year is decided and shared so that activities based on that policy—including lectures by external experts and training using audiovisual aids—will be carried out at each site and Group company.

Furthermore, to maintain a comfortable and pleasant working environment at all times, a workplace bullying consultation desk is set up at each site where both male and female staff members are available for consultation by anyone whenever needed.

In addition, with the revised Equal Employment Opportunity Law going into force from January 1, 2017, we are working to promote understanding of issues surrounding pregnancy-related harassment by providing training to employees about maternity and paternity harassment.

Moreover, the SUMCO Group does not use child labor of any kind, and through daily work management, ensures the absence of forced labor.

We also ensure that both male and female employees receive fair treatment and that the pay system is not gender-biased.

The Number of Employees Who Received Human Rights Awareness Training in the Past Five Years (SUMCO Group [Japan])

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>983</td>
<td>1,037</td>
<td>1,060</td>
</tr>
<tr>
<td>2013</td>
<td>1,153</td>
<td>1,194</td>
<td>1,347</td>
</tr>
<tr>
<td>2014</td>
<td>1,344</td>
<td>1,400</td>
<td>2,744</td>
</tr>
<tr>
<td>2015</td>
<td>1,004</td>
<td>1,100</td>
<td>2,104</td>
</tr>
</tbody>
</table>

*The fiscal year 2012 started in February 2012 and ended on January 31, 2013. The fiscal year 2013 started in February 2013 and ended on December 31, 2013. From fiscal year 2014, the fiscal year starts in January and ends on December 31.

Human Resources Development
As declared in the SUMCO Vision, SUMCO aspires to become the “World’s Best in Technology.” To reach this goal, diversified training opportunities are provided to employees at all levels, from new recruits to managers and executives, to encourage them to pursue lifelong education and stay abreast of changing needs as well as develop into independent thinkers and leaders. You are also provided every year with an opportunity to present their research achievements to senior management as a means of enhancing their motivation.

Safety and Health/Disaster Prevention Awards Received

<table>
<thead>
<tr>
<th>Year &amp; month</th>
<th>Award</th>
<th>Awarded site</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2008</td>
<td>Letter of Appreciation from Miyazaki Pref. Governor for Cooperation with Volunteer Fire Corps</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
<tr>
<td>October 2008</td>
<td>Japan Industrial Safety and Health Association Chairman’s Award</td>
<td>SUMCO Corp.</td>
</tr>
<tr>
<td>October 2008</td>
<td>Arika Pref. Labor Standards Association Chairman’s Award</td>
<td>Japan Super Quasi Corp.¹</td>
</tr>
<tr>
<td>October 2008</td>
<td>Nagasaki Labor Bureau Director’s Commendation for Safety and Health</td>
<td>SUMCO TECHXIV Corp. Nagasaki Plant</td>
</tr>
<tr>
<td>December 2008</td>
<td>Ministry of Health, Labor and Welfare Class 1 No Accident Record</td>
<td>SUMCO TECHXIV Corp. Nagasaki Plant</td>
</tr>
<tr>
<td>September 2009</td>
<td>Commendation from Chief of Miyazaki Pref Police Headquarters for the Promotion of Traffic Safety</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
<tr>
<td>February 2010</td>
<td>Ministry of Health, Labor and Welfare Class 1 No Accident Record (7 million hours)</td>
<td>SUMCO Corp. Kyushu Factory (Saga)</td>
</tr>
<tr>
<td>November 2010</td>
<td>Ministry of Health, Labor and Welfare Class 1 No Accident Record (7 million hours)</td>
<td>SUMCO Corp. Kyushu Factory (Imari)</td>
</tr>
<tr>
<td>November 2010</td>
<td>Letter of Appreciation from Japanese Red Cross Society</td>
<td>SUMCO Corp. Kyushu Factory (Imari)</td>
</tr>
<tr>
<td>December 2010</td>
<td>Golden Order of Merit from Japanese Red Cross Society (Blood Donation)</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
<tr>
<td>December 2010</td>
<td>Accreditation as a Cooperating Business with Miyazaki City Volunteer Fire Corps</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
<tr>
<td>August 2011</td>
<td>Health, Labor and Welfare Minister’s Commendation from Japanese Red Cross Society</td>
<td>SUMCO Corp. Kyushu Factory (Imari)</td>
</tr>
<tr>
<td>August 2011</td>
<td>Order of Merit from Japanese Red Cross Society</td>
<td>SUMCO Corp. Kyushu Factory (Saga)</td>
</tr>
<tr>
<td>October 2011</td>
<td>Nagasaki Labor Bureau Director’s Commendation for Safety and Health</td>
<td>SUMCO Corp. Nagasaki Office</td>
</tr>
<tr>
<td>November 2011</td>
<td>Nuclear and Industrial Safety Agency Director-General’s Award for Safety Management of High-Pressure Gas</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
<tr>
<td>October 2013</td>
<td>Federation of Labor Standards Associations Chairman’s Commendation for Safety Management</td>
<td>SUMCO Technology Corp. Noda Plant</td>
</tr>
<tr>
<td>October 2013</td>
<td>Saga Labor Bureau Director’s Commendation for Safety and Health</td>
<td>SUMCO Corp. Kyushu Factory (Kubara)</td>
</tr>
<tr>
<td>October 2013</td>
<td>Ministry of Health, Labor and Welfare Class 2 No Accident Record (10.5 million hours)</td>
<td>SUMCO Corp. Kyushu Factory (Saga)</td>
</tr>
<tr>
<td>February 2014</td>
<td>Ministry of Health, Labor and Welfare Class 1 No Accident Record (7 million hours)</td>
<td>SUMCO Corp. Kyushu Factory (Kubara)</td>
</tr>
<tr>
<td>May 2014</td>
<td>Letter of Appreciation from Saga Pref. Governor for Safety Management of High-Pressure Gas</td>
<td>SUMCO Corp. Kyushu Factory (Saga)</td>
</tr>
<tr>
<td>July 2015</td>
<td>Hokkaido Labor Bureau Director’s Commendation</td>
<td>SUMCO Corp. Chitose Plant</td>
</tr>
<tr>
<td>March 2016</td>
<td>Recognized by the Volunteer Fire Corps of the Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications</td>
<td>SUMCO Corp. Kyushu Factory (Imari)</td>
</tr>
<tr>
<td>June 2016</td>
<td>Ministry of Health, Labor and Welfare Class 2 No Accident Record (10.5 million hours)</td>
<td>SUMCO TECHXIV Corp. Nagasaki Plant</td>
</tr>
<tr>
<td>October 2016</td>
<td>Excellent Safety Operations Facility Bronze Medal</td>
<td>SUMCO TECHXIV Corp. Miyazaki Plant</td>
</tr>
</tbody>
</table>

¹ Current JSQ Division
² Awards listed include those received by the date of publication of this report.

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**Labor-Management Relations**

SUMCO’s basic labor-management policy is to maintain sound relations based on mutual understanding and trust, and to solve issues through discussion for the perpetual development of the Company and improvement of working conditions.

Specifically, with the aim of maintaining business operations based on integrated efforts between labor and management, a labor-management meeting is generally held twice a year to share information and promote communication.

Also, at labor-management meetings held once a month at each plant, plant managers and union representatives discuss such issues as the production situation.

Furthermore, the Labor-Management Study Committee meets regularly throughout the year to discuss important issues such as the improvement of working conditions and review of various systems from multifaceted, holistic, and long-term perspectives, thus allowing labor and management to work closely together to address various issues.

**Employment Status**

(as of the end of December 2016)

<table>
<thead>
<tr>
<th>Item</th>
<th>Regular employees</th>
<th>Temporary employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMCO</td>
<td>5,501</td>
<td>167</td>
</tr>
<tr>
<td>Consolidated</td>
<td>7,520</td>
<td>1,201</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>5,319</td>
</tr>
<tr>
<td>North America</td>
<td>560</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>337</td>
</tr>
<tr>
<td>East Asia</td>
<td>1,284</td>
</tr>
<tr>
<td>Europe</td>
<td>94</td>
</tr>
<tr>
<td>Total</td>
<td>7,520</td>
</tr>
</tbody>
</table>

**Breakdown of Employees (Consolidated)**

<table>
<thead>
<tr>
<th></th>
<th>Managers</th>
<th>Regular employees</th>
<th>Temporary employees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>783</td>
<td>6,114</td>
<td>817</td>
<td>7,114</td>
</tr>
<tr>
<td>Female</td>
<td>441</td>
<td>560</td>
<td>94</td>
<td>645</td>
</tr>
<tr>
<td>Total</td>
<td>824</td>
<td>6,774</td>
<td>1,757</td>
<td>8,531</td>
</tr>
</tbody>
</table>

---

**Nursery School to Open on Company Premises**

In a bid to help employees with small children balance their work and child-rearing, the Company set up SUMCO Nursery School Imari at our Kyushu Factory on November 1, 2016. Through this initiative, SUMCO believes that it has taken positive steps to provide employees with small children a comfortable and pleasant workplace environment. As a new way of contributing to society, the facility is also a community day care service based on the Japanese government’s Comprehensive Support System for Children and Child-rearing. Accordingly, a portion of the capacity will be made available to local residents who are not SUMCO employees.

Looking ahead, SUMCO will promote a variety of initiatives in order to put in place a workplace environment in which a diverse array of employees can excel while ensuring harmonious coexistence with the local community.
2016 data on the acquisition status of ISO 14001 certification for the SUMCO Group’s business sites/plants and regulated substances discharged from each site/plant to the surrounding air and water

<table>
<thead>
<tr>
<th>Name of business site/plant</th>
<th>SUMCO Corporation Kyushu Factory (Nagahama)</th>
<th>SUMCO Corporation Kyushu Factory (Kubara)</th>
<th>SUMCO Corporation Kyushu Factory (Saga)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope of business</strong></td>
<td>Design, development and manufacture of silicon wafers, Design, development and manufacture of monocrystalline silicon ingots and silicon wafers, Design, development and manufacture of monocrystalline silicon ingots and silicon wafers</td>
<td>Design, development and manufacture of monocrystalline silicon ingots and silicon wafers</td>
<td>Design, development and manufacture of monocrystalline silicon ingots and silicon wafers</td>
</tr>
</tbody>
</table>

**Air**

<table>
<thead>
<tr>
<th>Nitrogen oxides (NOx)</th>
<th>ppm</th>
<th>Boiler 86 (150)</th>
<th>Boiler 48 (150)</th>
<th>Boiler 70 (110)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sulfur oxides (SOx)</th>
<th>m³/N/h</th>
<th>ND (K-value regulation 17.5)</th>
<th>ND (K-value regulation 17.5)</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Soot and dust</th>
<th>g/m³/N</th>
<th>Boiler ND</th>
<th>Boiler ND</th>
<th>Boiler ND (0.001)</th>
</tr>
</thead>
</table>

**Water**

<table>
<thead>
<tr>
<th>Biological oxygen demand (BOD)</th>
<th>mg/l</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>10</th>
<th>4.5</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chemical oxygen demand (COD)</th>
<th>mg/l</th>
<th>30</th>
<th>14.3</th>
<th>30</th>
<th>9.2</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Suspended solids (SS)</th>
<th>mg/l</th>
<th>30</th>
<th>14</th>
<th>30</th>
<th>9</th>
<th>25</th>
<th>5</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>N-hexane extract</th>
<th>mg/l</th>
<th>5</th>
<th>ND</th>
<th>5</th>
<th>ND</th>
<th>3</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Iodine consumption</th>
<th>mg/l</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Fluorine and its compounds</th>
<th>mg/l</th>
<th>8</th>
<th>5.1</th>
<th>8</th>
<th>3.51</th>
<th>3</th>
<th>0.9</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ammoniac nitrogen</th>
<th>mg/l</th>
<th>80</th>
<th>16</th>
<th>80</th>
<th>31</th>
<th>100</th>
<th>9.7</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Nitric nitrogen</th>
<th>mg/l</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Nitrogen content (T-N)</th>
<th>mg/l</th>
<th>120</th>
<th>41</th>
<th>120</th>
<th>25</th>
<th>60</th>
<th>17.3</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chromium content (T-Cr)</th>
<th>mg/l</th>
<th>0.2</th>
<th>ND</th>
<th>0.2</th>
<th>ND</th>
<th>0.2</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phosphorus content (T-P)</th>
<th>mg/l</th>
<th>12</th>
<th>0.14</th>
<th>12</th>
<th>0.22</th>
<th>8</th>
<th>0.89</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Arsenic</th>
<th>mg/l</th>
<th>0.05</th>
<th>ND</th>
<th>0.05</th>
<th>ND</th>
<th>0.1</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Trichloroethylene</th>
<th>mg/l</th>
<th>0.1</th>
<th>ND</th>
<th>0.1</th>
<th>ND</th>
<th>0.1</th>
<th>ND</th>
</tr>
</thead>
</table>

- Only the drainage standard concerning COD applies to the Kyushu Factory (Nagahama) and Kyushu Factory (Kubara) because their treated drainage is discharged into the sea.
- The drainage standard concerning COD applies to the Noda Office based on the total pollutant load control standards for drainage into Tokyo Bay.
- Wastewater from the Yonezawa Plant is discharged to a public sewer and therefore falls under the category of “wastewater discharged into rivers after treatment at sewage plants” under the Sewerage Law. For this reason, the regulation value for fluorine compounds is 8 mg/l.

<table>
<thead>
<tr>
<th>Name of business site/plant</th>
<th>SUMCO Corporation Noda Office</th>
<th>SUMCO Corporation Yonezawa Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope of business</strong></td>
<td>Manufacture of Silicon wafer</td>
<td>Design, development and manufacture of monocrystalline silicon ingots</td>
</tr>
<tr>
<td><strong>Status of acquisition of ISO 14001 certification</strong></td>
<td>Examining organization Japan Quality Assurance Organization</td>
<td>Examining organization Japan Quality Assurance Organization</td>
</tr>
<tr>
<td><strong>Date of acquisition</strong></td>
<td>January 11, 1999</td>
<td>January 11, 1999</td>
</tr>
<tr>
<td><strong>Date of renewal</strong></td>
<td>January 11, 2017</td>
<td>January 11, 2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nitrogen oxides (NOx)</th>
<th>ppm</th>
<th>Boiler 48 (260)</th>
<th>Boiler ND</th>
<th>Boiler ND (0.001)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sulfur oxides (SOx)</th>
<th>m³/N/h</th>
<th>0.34 (K-value regulation 9.3)</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Soot and dust</th>
<th>g/m³/N</th>
<th>Boiler ND (0.004 (0.3))</th>
<th>Boiler ND</th>
<th>Boiler ND (1)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Biological oxygen demand (BOD)</th>
<th>mg/l</th>
<th>25</th>
<th>20.3</th>
<th>600</th>
<th>26</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chemical oxygen demand (COD)</th>
<th>mg/l</th>
<th>20</th>
<th>16.8</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Suspended solids (SS)</th>
<th>mg/l</th>
<th>50</th>
<th>12</th>
<th>600</th>
<th>26</th>
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</table>

<table>
<thead>
<tr>
<th>N-hexane extract</th>
<th>mg/l</th>
<th>5</th>
<th>ND</th>
<th>5</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Iodine consumption</th>
<th>mg/l</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Fluorine and its compounds</th>
<th>mg/l</th>
<th>8</th>
<th>6.3</th>
<th>8</th>
<th>4.4</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ammoniac nitrogen</th>
<th>mg/l</th>
<th>100</th>
<th>9.4</th>
<th>380</th>
<th>200</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Nitric nitrogen</th>
<th>mg/l</th>
<th>/</th>
<th>/</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Nitrogen content (T-N)</th>
<th>mg/l</th>
<th>30</th>
<th>19</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chromium content (T-Cr)</th>
<th>mg/l</th>
<th>1</th>
<th>ND</th>
<th>0.5</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phosphorus content (T-P)</th>
<th>mg/l</th>
<th>2</th>
<th>0.2</th>
<th>/</th>
<th>/</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Arsenic</th>
<th>mg/l</th>
<th>0.05</th>
<th>ND</th>
<th>0.1</th>
<th>ND</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Trichloroethylene</th>
<th>mg/l</th>
<th>0.1</th>
<th>ND</th>
<th>0.1</th>
<th>ND</th>
</tr>
</thead>
</table>

- The drainage standard concerning COD applies to the Yonezawa Plant based on the total pollutant load control standards for drainage into Tokyo Bay.
- Wastewater from the Yonezawa Plant is discharged to a public sewer and therefore falls under the category of “wastewater discharged into rivers after treatment at sewage plants” under the Sewerage Law. For this reason, the regulation value for fluorine compounds is 8 mg/l.

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### Name of business site/plant

<table>
<thead>
<tr>
<th>SUMCO Corporation Chitose Plant</th>
<th>SUMCO Corporation JSQ Division</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope of business</strong></td>
<td>Design, development and manufacture of silicon wafers</td>
</tr>
</tbody>
</table>

### Status of acquisition of ISO 14001 certification

<table>
<thead>
<tr>
<th>Organization</th>
<th>Date of acquisition</th>
<th>Date of renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Quality Assurance Organization</td>
<td>January 11, 1999</td>
<td>January 11, 1999</td>
</tr>
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</table>

### Air Measurement results

<table>
<thead>
<tr>
<th>Measurement results</th>
<th>Measurement results (regulation value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen oxides (NOx) ppm</td>
<td>Boiler 73 (160) Firing furnace 0.09 (0.2)</td>
</tr>
<tr>
<td>Sulfur oxides (SOx) m³/h</td>
<td>Boiler 0.01 (0.3)</td>
</tr>
<tr>
<td>Soot and dust g/m³N</td>
<td>Boiler 0.01 (0.3)</td>
</tr>
</tbody>
</table>

### Water Measurement results

<table>
<thead>
<tr>
<th>Measurement value</th>
<th>Measurement result</th>
<th>Measurement value</th>
<th>Measurement result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological oxygen demand (BOD) mg/l</td>
<td>600 1.3</td>
<td>180 1.7</td>
<td></td>
</tr>
<tr>
<td>Chemical oxygen demand (COD) mg/l</td>
<td>/</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Suspended solids (SS) mg/l</td>
<td>600 9</td>
<td>200 15</td>
<td></td>
</tr>
<tr>
<td>N-hexane extract mg/l</td>
<td>5</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td>Toxins and its compounds mg/l</td>
<td>8</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Ammoniac nitrogen mg/l</td>
<td>/</td>
<td>100 3.2</td>
<td></td>
</tr>
<tr>
<td>Nitric nitrogen mg/l</td>
<td>/</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Nitro-nitrogen mg/l</td>
<td>/</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>Nitrogen content (T-N) mg/l</td>
<td>120 5.9</td>
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<td></td>
</tr>
<tr>
<td>Chromium content (T-Cr) mg/l</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Phosphorous content (T-P) mg/l</td>
<td>3</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>Ammoniac mg/l</td>
<td>/</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Tbossyamine mg/l</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

* The Sewerage Law applies to Chitose Plant because drainage from these facilities is discharged into the sewerage system (subsequently released into the river). Accordingly, the fluorine compound regulation value is set as 8 mg/l.

### Summary

- **SUMCO Corporation Chitose Plant**
  - **Scope of business**: Design, development and manufacture of silicon wafers.
  - **Air Measurement results**: Nitrogen oxides (NOx): Boiler 73 (160), Firing furnace: 0.09 (0.2)
  - **Water Measurement results**: Biological oxygen demand (BOD): 600, Chemical oxygen demand (COD): 180, Suspended solids (SS): 200, N-hexane extract: 5, Toxins and its compounds: 8, Ammoniac nitrogen: 100

- **SUMCO Corporation JSQ Division**
  - **Scope of business**: Design, development and manufacture of quartz crucibles.
  - **Air Measurement results**: Nitrogen oxides (NOx): Boiler 98 (260), Sulfur oxides (SOx): 0.004 (K-value regulation 17.5)
  - **Water Measurement results**: Biological oxygen demand (BOD): 600, Chemical oxygen demand (COD): 84.4, Suspended solids (SS): 200, N-hexane extract: 5, Toxins and its compounds: 15, Ammoniac nitrogen: 380, Nitric nitrogen: 91.9, Nitro-nitrogen: 100, Nitrogen content (T-N): 240, Chromium content (T-Cr): 2, Phosphorous content (T-P): 32, Arsenic mg/l: 0.1, Tbossyamine mg/l: 0.1, Nitric nitrogen mg/l: 2, Nitrogen content (T-N): 240, Chromium content (T-Cr): 2, Phosphorous content (T-P): 32, Arsenic mg/l: 0.1, Tbossyamine mg/l: 0.1

* The Sewerage Law applies to SUMCO TECHXIV Corporation Nagasaki Plant because drainage from the company is discharged into the sewerage system (subsequently released into the sea). Accordingly, the fluorine compound regulation value is set at 15 mg/l.

* The drainage standard concerning BOD applies to SUMCO TECHXIV Corporation Miyazaki Plant because its treated drainage is discharged into the river.

* The frequency of measurement of air soot and dust at SUMCO TECHXIV Corporation Miyazaki Plant has been revised to once every five years. (The next measurement will take place in 2018.)
### Note

- Monitoring for pH and flow is only required for Albuquerque Plant. The City of Albuquerque monitors the effluent discharge on a regular basis.

### Scope of business

- **SUMCO Phoenix Corporation**
  - **Albuquerque Plant**
  - **Phoenix Plant**

### Status of acquisition of ISO 14001 certification

<table>
<thead>
<tr>
<th>Status of acquisition</th>
<th>Examining organization</th>
<th>Date of acquisition</th>
<th>Date of renewal</th>
</tr>
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<tbody>
<tr>
<td>ISO 14001 certification</td>
<td>DNV</td>
<td>June 19, 2000</td>
<td>June 30, 2015</td>
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### Air Measurement results

<table>
<thead>
<tr>
<th>Air</th>
<th>Measurement result (regulation value)</th>
<th>Measurement results (regulation value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen oxides (NOx)</td>
<td>0.92 (10.2)</td>
<td>12.8 (24.6)</td>
</tr>
<tr>
<td>Sulfur oxides (SOx)</td>
<td>0.01 (0.34)</td>
<td>0.28 (1.25)</td>
</tr>
<tr>
<td>PM10 (Particulate Matter)</td>
<td>0.07 (0.84)</td>
<td>1.08 (2.5)</td>
</tr>
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</table>

### Water Measurement results

<table>
<thead>
<tr>
<th>Water</th>
<th>Regulation value</th>
<th>Measurement result</th>
<th>Regulation value</th>
<th>Measurement result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological oxygen demand (BOD)</td>
<td>mg/l</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>mg/l</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Arsenic</td>
<td>mg/l</td>
<td>2.09</td>
<td>/</td>
<td>0.13</td>
</tr>
<tr>
<td>Cadmium</td>
<td>mg/l</td>
<td>/</td>
<td>/</td>
<td>0.047</td>
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<tr>
<td>Copper</td>
<td>mg/l</td>
<td>/</td>
<td>/</td>
<td>1.5</td>
</tr>
<tr>
<td>Cyanide</td>
<td>mg/l</td>
<td>0.5</td>
<td>/</td>
<td>0.2</td>
</tr>
<tr>
<td>Fluorine and its compounds</td>
<td>mg/l</td>
<td>0.004</td>
<td>/</td>
<td>0.0023</td>
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<tr>
<td>Lead</td>
<td>mg/l</td>
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<td>/</td>
<td>0.41</td>
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<tr>
<td>Mercury</td>
<td>mg/l</td>
<td>0.004</td>
<td>/</td>
<td>0.0023</td>
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<tr>
<td>Molybdenum</td>
<td>mg/l</td>
<td>2.0</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Selenium</td>
<td>mg/l</td>
<td>0.46</td>
<td>/</td>
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</tr>
<tr>
<td>Silver</td>
<td>mg/l</td>
<td>5.0</td>
<td>/</td>
<td>1.2</td>
</tr>
<tr>
<td>Zinc</td>
<td>mg/l</td>
<td>2.2</td>
<td>/</td>
<td>3.5</td>
</tr>
<tr>
<td>Suspended solids (SS)</td>
<td>mg/l</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
</tbody>
</table>

* Monitoring for pH and flow is only required for Albuquerque Plant. The City of Albuquerque monitors the effluent discharge on a regular basis.