



# 2016

## Environmental and Social Report

Management Philosophy



We dedicate ourselves and our resources backed by the entrepreneurial spirit and pride in creation and development of businesses linking air, water, the earth, and humans.

Our name embodies our mission: to create and conduct enterprises that effectively use our planet's air, water, and other irreplaceable assets, for the purpose of making a meaningful contribution to our fellow human beings across the globe.

We are making efforts to dynamically develop new businesses by identifying community-based businesses and the roles we should play for people in those communities while enhancing the collective strength of our Group. In collaboration with over 220 of our diverse Group companies ranging from industrial gas and chemical-related businesses, which play active roles in various industrial fields, to medical business, energy business, agriculture/food business, seawater business, and logistics business, which involve the lives and living of people, we keep making efforts to be a corporation whose existence itself can give more pleasure to customers and society. In all of our endeavors, we design environmentally responsible solutions that deliver a reliable flow of safe products and services to our customers.

This year's Environmental and Social Report introduces a number of our business initiatives, and explains how we are leveraging our unique vision as a Group to create and deliver significant value to society at large. As always, we hope that this year's Environmental and Social Report succeeds in deepening our communication with our many stakeholders.

About This Publication

Enterprises have been making various efforts to fulfill their Corporate Social Responsibility (CSR) over time. Air Water began publication of this annual *Environmental and Social Report* in 2002, as a way of informing our stakeholders about our commitment to CSR, and about the organization and content of our CSR activities throughout the many businesses we operate. With the goal of appealing to a wide range of readers, we have arranged this 2016 Report as follows.

- The Environmental and Social Report 2016 consists of the following sections: To Our Stakeholders; Business Overview; Feature stories; Topics; Governance and Compliance; Activity Reports; and Environmental Reports.
- This report covers the activities of Air Water Inc. and its domestic Group companies.
- This report is based on data from April 1, 2015 to March 31, 2016. We also include some information about more recent initiatives.
- In editing this report, we have referred to the ISO26000 guidelines, to the *Environmental Reporting Guidelines* from Japan's Ministry of the Environment, and to other relevant guidelines.
- In the Business Overview section, we describe Air Water's management philosophy and management policy, as well as the relationship between our businesses and stakeholders, so that readers can have a better understanding of Air Water and its businesses in various fields.
- This year's feature stories highlight the activities of Air Water Safety Service Inc. and carbon dioxide business in Hokkaido, as examples of how Air Water and its Group companies fulfill their social responsibility. These stories include outside voices, and explain how our operations are creating positive value for society as a whole.
- The remaining sections of this report describe our basic philosophy and current status in as transparent a manner as possible.

Focus on ISO 26000

In writing this year's report, we have placed particular emphasis on the ISO 26000 social responsibility guidelines and their "seven core subjects." We have included markings throughout the report indicating the connection between our content and these seven subjects.



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Creating new businesses to keep growing together with local communities. We consider this to be our "contribution to society."

## Message from the CEO

In recent years in Japan, measures including acceptance of foreign workers and attraction of tourists have been promoted proactively. Japanese society seems to have given weight to being "homogeneous" for a long time. How does it understand and accept various "differences" and "diversity"? Japan is apparently in front of a door to an open, diverse society now.

The Air Water Group has been developing with companies and human resources of a wide range of business types and categories by two mergers and subsequent promotion of M&A. The driving force of our growth is the integration of various human resources with diverse backgrounds, capabilities, expertise, and values. In the future, through enhancing "development of young employees" and "creation of an environment where women can be active," we place importance on diversity, establish a corporate culture that accepts and utilizes differences, and promote management that values diversity.

Thanks to these diverse human resources, we are steadily moving toward the achievement of our "Vision for a 1 trillion yen company 2020." Now we are preparing for continuing growth after 2020 with "One Air Water" as a slogan.

This growth vision is a vision that develops "focusing on the local community and together with the local community." The "One" from "One Air Water" indicates that Air Water works as one, and also incorporates our determination to make efforts at one with the local community. With contribution to the local community as an important theme, the Air Water Group companies, including nine regional business companies developed nationwide, aim to become companies that meet the

expectations of their local communities. We believe that the new creation of "businesses linking air, water, the earth, and humans" prescribed in our business philosophy will lead to such contribution.

"Azumino Biomass Energy Center," which started to operate in May 2016, is one such example. The Center provides energy for vegetable cultivation by gasification cogeneration facilities utilizing wood biomass, and creates an ideal ecology cycle to utilize valuable resources such as heat, electricity, charcoal, and carbon dioxide acquired from unused wood in the surrounding areas for the Group companies and the local community.

This new business that integrates agriculture and power generation, which are essential to people's lives, has been realized based on trust between our Company, which has ingrained our unique strategies, "All-Weather Management System" and "Order Rodentia Style of Business" into the Shinshu area, and the local community. The local community provides cooperation for us, and we give back to the local community in the forms of "Local Production for Local Consumption" and "Employment Creation." We have named this new business model "farming power generation," which we are going to develop in an original way according to the characteristics of the region in each regional business company.

The feature stories in this report introduce you to our approaches to protect and support the lives and livings of people, and regional industries. Feature Story 1 highlights Air Water Safety Service Inc., a company that deals in respirators, firefighting equipment, medical gas equipment, operating room equipment, and medical equipment that are directly linked to "life," which has operated



the "Vibration Test Center," which provides assurance of earthquake safety of products, since April 2016. In recent years, when natural disasters including the Kumamoto Earthquake have occurred one after another, the Air Water Group companies have worked together from a viewpoint of disaster prevention, and explored ways of social contribution making use of our wide range of business fields.

Meanwhile, Feature Story 2 highlights an example case of solving a regional issue, where local governments, concerned companies, and the Air Water Group collaborated and cooperated to overcome an issue that the source of carbon dioxide materials has disappeared in Hokkaido. You will see the stance that Air Water takes to address social challenges on the basis of trust with customers developed in local communities.

The Air Water Group develops a wide variety of businesses from "industrial business" in areas such as industrial gas and chemicals to "lifestyle business" in areas such as medicine, energy, and agriculture/food, which are expanding in range. In all these businesses, we must be an essential and positive presence for everyone

all the time. In order to face and address the issues and needs of society sincerely, a high ideal, moral values, and physical and mental health are required by employees in any field. To realize these, we make proactive efforts for employee education, ensuring awareness of compliance, and health management.

With these collected sound wisdom and power of each employee, we strive to become a company that develops together with society.

We hope that this report helps all of our stakeholders gain a deeper understanding of our Group's activities and orientation, and we look forward to your continued support.

Masahiro Toyoda  
Representative Director, Chairman of the Board,  
Chief Executive Officer  
Air Water Inc.

A handwritten signature in black ink, appearing to read "M. Toyoda".

# We contribute to our society and daily lives widely by creating businesses making use of earth's resources such as air and water.

The Air Water Group balances two major types of business: industry-oriented enterprises in areas such as industrial gas and chemicals, and health and lifestyle enterprises in medicine, energy, and agriculture/food, and more. In addition, we have two management policies. One is an "All-Weather Management System" that maintains a clear focus regardless of management changes and business climate, and another is our "Order Rodentia Style of Business," in which our mid-size Group companies are continually taking full advantage of synergies, opening up new areas of business, and building the strength of the entire Group. Further, we have established action guidelines for each employee of the Group, which are "Knowing yourself" to prepare for the future by looking back over the past and finding out your own footing, and "Acting beyond the barriers of organizations" to take actions regardless of boundaries.

In our new medium-term business plan "NEXT: 2020 ver. 3" (from fiscal 2016 to fiscal 2018), which started in 2016, "creating a structure to realize the vision for a 1 trillion yen company" and "laying groundwork for growth after 2020" are positioned as the management issues to address. We are going to further develop a business structure that is resistant to environmental changes by establishing a system suited for realizing a 1-trillion-yen company in fiscal 2020, and have already started taking measures, which serve as a foundation to be a company that keeps growing and developing after 2020.

Under our new basic concept "further challenge for structural reorganization and sustainable growth," we advance our efforts to increase the true value of "All-Weather Management System" and "Order Rodentia Style of Business" as our basic management policy.

We are committed to widely contributing to our society and daily lives by creating business making use of earth's resources such as air and water.

## Businesses and Stakeholders of Air Water



We work on the promotion of ethical behaviors, including ensuring compliance and fair business transactions according to social norms, etc.

Related information ▶ P.24



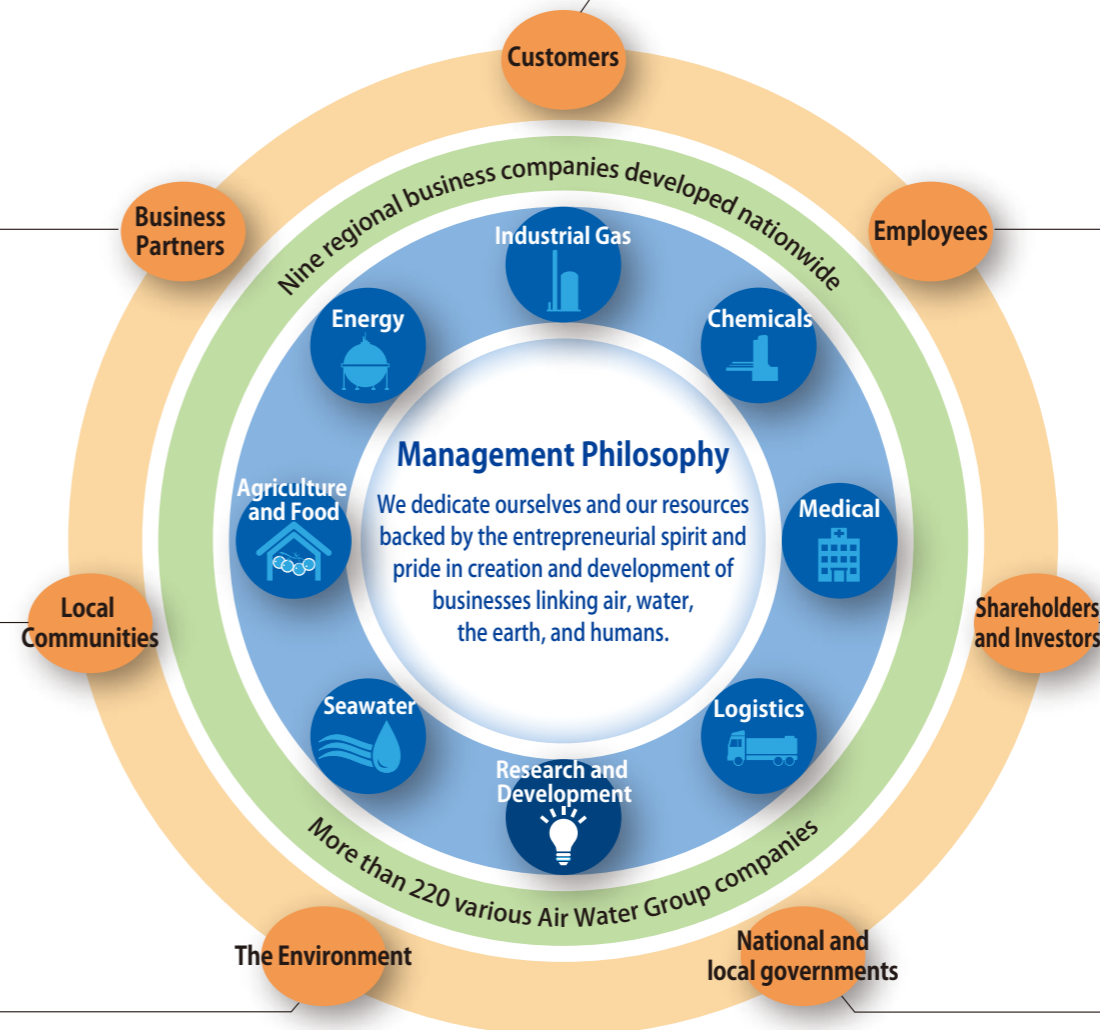
Our businesses are closely tied to local communities. We will get actively involved with local communities for their development and revitalization, and continue to make progress with the aim of growing together with them.

Related information ▶ P.25



We can continue to engage in our businesses by carefully using the limited resources of the earth. We make every possible effort to preserve the global environment.

Related information ▶ P.26-31



We continuously pursue our business activities from the perspective of customers and create maximum value for our society through providing our products and services.

Related information ▶ P.18-19



We respect the individualities and personalities of human resources who share our management philosophy and management policy, and build a corporate culture that gives first priority to safety and trust.

Related information ▶ P.20-24



We are devoted to building a stable, trusting, long-term relationship with our shareholders and investors as corporate management partners, through sincere communication.

Related information ▶ P.17



In order to pursue highly transparent management in accordance with laws and social ethics, we collaborate and cooperate fully with public organizations.

Related information ▶ P.16-17, 24

### Basic Management Policy

#### All-Weather Management System

A business strategy that forms appropriate business portfolios for industrial and lifestyle sectors and aims to constantly earn stable profits, in order to establish a system that maintains a clear focus regardless of management changes and business climate

#### Order Rodentia Style of Business

A growth strategy that seeks sustainable business growth by continuously fostering and creating mid-size companies that respond rapidly to environmental change, like Order Rodentia, and have the vitality to flexibly develop new businesses and areas of business

### Action Guidelines

#### Knowing yourself

Prepare for the future by looking back over the past and finding out your own footing

#### Acting beyond the barriers of organizations

Have discussions beyond the barrier of organizations and take actions regardless of boundaries.



# We aim for sustainable business growth with our diverse businesses and community-based businesses.



## Industrial Gas We meet the needs of industries and daily lives with "solutions with industrial gas."

Having sophisticated gas technologies such as gas manufacturing, plant engineering, transport, and storage, we offer safe and reliable delivery of a wide variety of industrial gases, including oxygen, nitrogen, argon, CO<sub>2</sub>, hydrogen, and helium. Delivery methods are adjusted to meet each user's specific requirements.



Large scale on-site plant



Compact, high-efficiency liquid nitrogen/oxygen co-production plant "VSU"



## Chemicals We work on unique development of "high-value added chemical materials" that are crucial to the world.

We contribute to our society and daily lives through the coal chemical business to manufacture and sell high-value-added chemical products made from coke oven gas and coal tar for iron plants, and the fine chemical business, using synthetic chemistry techniques developed over many years, to manufacture and sell products made from organic compounds and tar distillation products such as pharmaceutical and agricultural intermediates and electronic materials, both in Japan and abroad.



Gas purification plant



GMP plant for high-active chemicals



## Medical We support the front lines of healthcare with "medical total solutions" including medical gas.

Air Water develops a wide variety of one-stop businesses to support the medical field. Through our nationwide network, we stably supply medical gases that protect patients' lives to institutions throughout the country. We also perform design and construction of hospital facilities, import and sell medical devices, offer medical services including contract sterilization, SPD, and maintenance, and provide for home care and nursing care.



Operation room (showroom)



Home oxygen concentrator



## Energy We contribute to the growth and development of daily lives and industries with "living energy crucial to communities."

We deliver LP gas, kerosene, and other fuels to households and industrial facilities in Hokkaido and prefectures in eastern and central Japan, known as the "Hello Gas" brand. We also provide new ideas based on our own original technologies, including LNG transport equipment and an LP gas-type mobile power source car, as well as supplying energy for industrial and technological fields.



Hello Gas spherical tank



The Hybrid Hot Water Supply and Heating System "VIVIDO"



## Agriculture and Food We deliver "high-quality, secure and safe agricultural/food products" for food situations in the 21st century.

We deliver high-quality, secure and safe agricultural/food products by handling by ourselves consistently, including production and sales of upscale ham and delicatessen (mainly domestic uncured ham) and high-freshness and high-quality frozen food; production, intermediate wholesale, distribution/processing, and sales of fruit and vegetables; and production and sales of vegetable/fruit beverages and home-delivered drinking water.



Sunlight utilization vegetable plant



"Savour" products (professional use)



## Other Businesses (seawater, logistics, etc.) We further promote "innovation for expanding businesses" by our original products, technologies, and services.

Air Water is a complex business entity that consists of seawater business, logistics business, and various specialized businesses other than five major segments. We further promote innovation for expanding businesses by the unique technologies, products, and services of each business.



Household salt products



Chassis transport



## Research and Development We pursue the best products and services that meet the needs of customers, and aim to realize new business innovation.

We aim to realize new business innovation by pursuing the best products and services that meet the needs of customers through cross-sectional technology fusion and synergy effects beyond the framework of businesses, making use of pioneering technologies in a wide range of business fields, such as industrial gas, electronics materials, chemical materials, medicine, energy, and agriculture and food.



3C-SiC on Si heteroepitaxial wafer

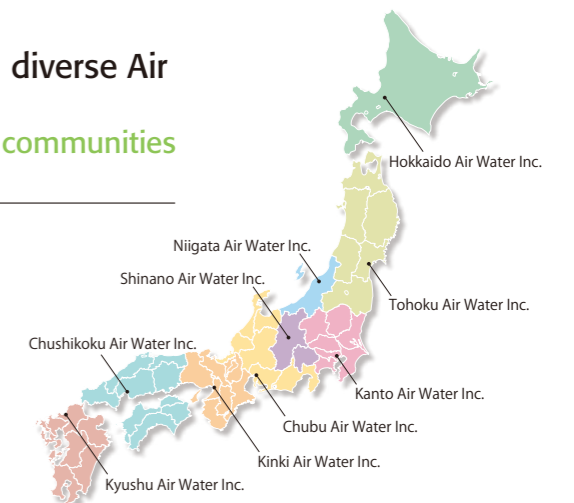


Vertical centrifugal pump



## Through regional business companies and diverse Air Water Group companies We develop businesses that are rooted in local communities for further evolution of our businesses.

We have regional business companies throughout the country and more than 220 various Group companies, which practice "All-Weather Management System" and "Order Rodentia Style of Business" in the front lines of their industries. They autonomously create original businesses and discover businesses through taking advantage of the group power based on the creation of synergies according to the characteristics of the respective area and the business structure.





Solving Social Issues through Businesses



# Protecting people's lives and property at the time of a disaster

— Roles of “businesses linking humans” by the Air Water Group —



Heroic Firefighters (Kawasaki City Fire Department)



Daily training of firefighters is conducted with the same equipment and the same sense of tension as found at a disaster site.

Air Water Safety Service Inc. (AWSS) plays a role in “businesses linking humans” prescribed in the management philosophy of the Air Water Group. It continues its creation and meeting challenges mainly in the medical, fire extinguishing system, and respirators businesses based on its corporate philosophy, “Protect Life and Property.” What practice its philosophy is solid “high-pressure gas control technology,” which has been proven by a lengthy track record, and a fine service system.

In this Feature Story, we cover various approaches by Air Water Safety Service, which provides safer and more secure respirators for disaster sites in order to respond to situations of disaster that are changing, and to increasing social needs for disaster prevention.

This report provides the current situation of Air Water Safety Service, which aims for a further social contribution by collaboration within the Air Water Group

### Larger-scale and more complex disasters

Respirators of Air Water Safety Service are placed in various fields such as fire departments, ironworks, chemical plants, vessels and hotels to use for firefighting, life saving, and disaster prevention. Major users are firefighters working for fire departments. We interviewed Fire Captain Shinichi Ochiai, Chief of the Equipment Section, the Facility and Equipment Division at Kawasaki City Fire Department in Kawasaki City, which is an ordinance-designated city in Kanagawa, with diverse regionality including mountainous areas, urban areas, and coastal areas.

“Kawasaki City needs to prepare a wide range of equipment to respond to various situations including forest fire, building fire, accidents on expressway, and disasters at an industrial complex, in an airport, and on a vessel. As a feature of future disasters, a tendency to become complex and large-scale is developed, where fire departments that provide res-

cue work need to take measures. For example, most railroad accidents occur on the tracks, and the JR Fukuchiyama Line derailling accident in 2005 became a calamity, where the train cars derailed and crashed into a building. In the Great East Japan Earthquake in 2011, earthquakes triggered tsunamis and nuclear power plant accidents, which led to a complex catastrophe that went far beyond the assumption. I suppose that sophistication and complication of various social systems contribute to such larger-scale and more complex disasters.”

### To unflinchingly protect the lives of firefighters who have the lives of victims in their hands

For firefighters who have the lives of victims in their hands at a disaster site, respirators that protect their lives are essential equipment, according to the Fire Captain. Rescuers could not possibly break down.

He talks about the difficulty of firefighting and life saving activity, and says, “A disaster site is always harsh not only in



**Shinichi Ochiai**  
Fire Captain  
Chief of Equipment Section,  
Facility and Equipment Division,  
General Affairs Department  
Kawasaki City Fire Department



**Ryoichi Aota**  
President  
Air Water Safety Service Inc.



**Tomoyuki Yamamoto**  
Managing Director  
General Manager of Safety  
Service Division  
Air Water Safety Service Inc.



**Hajime Inoue**  
Manager in charge of respirators,  
Respirator Division,  
Safety Service Division  
Air Water Safety Service Inc.

a common fire but also in an oxygen-deficient tunnel with buried communication cables or gas pipes, and in a chemical plant with leaking toxic gas. During a life-saving activity at such a site, natural breathing is almost impossible. Therefore, respirators as a lifeline are required to have ultimate safety, excellent operability and durability, and reliability for use. At the same time, we must conduct a thorough check of the equipment when starting a shift, during training, and after use without fail.”

The deciding factors of why they introduced the respirators of Air Water Safety Service, he says, firstly, less labor to wear and to change tanks. Firefighting and life-saving activities are also a fight against time. Secondly, there is high quality service such as maintenance and check. Thirdly, production technology of Japanese manufacturers has high reliability. Lastly, Mr. Ochiai told us the following.

“Collaboration with other organizations including the Self-Defense Forces, the police, and the Japan Coast Guard is increasingly important, while our firefighting and life-saving activities prepare for large-scale disasters. The range of use of respirators will also be expanded. We, a user of respirators, would like to protect the safety of citizens in cooperation with Air Water Safety Service, which develops and manufactures respirators, in order to flexibly respond to various disasters in the future.”

### Effort as a manufacturer that continuously provides secure and safe respirators

Air Water Safety Service, taking about a 70% share of respirators in Japan, is a leading manufacturer of respirators. Their annual production volume is about 4,000, and they provide users with “respirators that protect life,” which are quite specialized products. Their respirators are placed and used in about 800 fire departments nationwide as well as with the police, government offices, ironworks, and chemical plants. AWSS President Ryoichi Aota says that their overwhelming share of respirators is largely due to “respirators that provide

safety and security” and “long-standing trust relationships.”

“Our current respirators have been mostly completed as high-spec equipment with light weight, broad visibility, and performance following body movement. On top of that, they are constantly improved at the request of customers to be user-friendly. We accept requests from customers, take care of them by preparing a lot of different kinds and optional parts, and support customers. These efforts make our respirators more accessible and reliable for customers.”

Now AWSS Manager in charge of respirators Hajime Inoue explains the strength of their respirators.

“First of all, we have ‘technology and quality.’ As a domestic manufacturer, we have developed equipment suitable for the Japanese. We also maintain a stance to fulfill our obligations as a manufacturer by verifying safety of each piece of delicate equipment that protects people’s lives to carefully finish the products in the manufacturing lines. Secondly, I’d name our ‘service.’ We spare no effort to improve customer satisfaction by enhancing our service system such as lectures by sending a technician, and repair by the manufacturer as well as the realization of requests of customers, and customization of respirators used in special environments. Lastly, I’d name our ‘brand power proven by long-standing trust.’ Our air respirators, which have been used under the name of ‘Life Gem’ for more than half a century since their launch in 1949, have been established as a reliable brand. Our oxygen respirators for long time use, ‘Oxy Gem,’ which were launched in



Air respirator “Life Gem”



Oxygen respirator “Oxy Gem”





**Masashi Yokoyama**  
Chief of Developing Group,  
Respirator Division, Safety  
Service Division  
Air Water Safety Service Inc.

1996, also contributed to the actions for the nuclear power plant accidents in Fukushima.

Masashi Yokoyama, Chief of Developing Group, Respirator Division, also mentions the strength of their respirators.

"A technician goes along for repair work by visiting fire departments, which is an ideal opportunity to talk directly with firefighters for identifying issues and leading to development and improvement. Firefighters

sincerely tell us about respirators to which they entrust their lives. I believe that we gain credibility based on such fine service."

Air Water Safety Service values contact with customers as well as the replacement of defective parts. The company gives full consideration to the reduction of environmental load by 'long time use by repair.'

### Air Water Safety Service and its respirators: History

The history of Air Water Safety Service dates back to 1924. They imported submarine technology from Germany, which included the patent for respirators, and they started production of the first oxygen respirators in Japan three years later in 1927 by applying the technology.

Since then, they have evolved with oxygen respirators for life saving for a coal-mine accident, etc. and air respirators for firefighting, and now they develop and sell automatic positive pressure switching type air respirators for safer firefighting as well as oxygen respirators for longer service, a hybrid air line system for work at a waste disposal facility and a pharmaceutical company, and oxygen masks for emergency evacuation. They have advanced along with the history of respirators in Japan to support safe activities in any environment as their mission.

Currently the Company is expanding its business fields to fire extinguishing equipment, and medical gas piping facilities for hospitals, making use of the high-pressure gas control technology of respirators.



First oxygen respirator in Japan (1927)

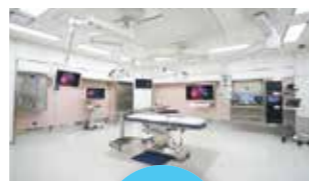
### High-pressure gas control technology and three businesses, and the collaboration within the Air Water Group

Respirators, which were the origin of the businesses of Air Water Safety Service, are based on high-pressure gas control technology, where air compressed by high pressure is filled in a tank, and is supplied to a wearer for breathing by reducing pressure. The fire extinguishing and medical businesses have been newly developed utilizing this technology.

In their fire extinguishing business, they provide gas system fire extinguishing equipment using high-pressure gas for general buildings, factories, and vessels, starting by the development of fire extinguishers for aircraft in 1942. Fire extinguishing by a gas system is crucial for server rooms, electric rooms, and vaults for art objects, where it is difficult to extinguish fire by water. Air Water Safety Service has a high reputation for special fire prevention systems such as nitrogen fire extinguishing, carbon dioxide fire extinguishing, and foam fire extinguishing.

With regard to their medical business, they launched the first medical gas supply system in Japan in 1957. Currently, they make a proposal of a one-stop solution from medical gas supply to the planning, design, construction, repair, and maintenance of medical gas piping facilities in a hospital. For operation rooms, they propose "AMhouse," a next-generation operation room, where wall equipment can be moved to any optional position according to operation and purpose. President Ryoichi Aota tells us about the development of their three businesses.

"The common philosophy of our three businesses is 'Protect Life and Property.' We pursue a way as a technology-intensive company with 'integrity, readiness, and reliability' as the policy of technology development. Each business has been developed stably in collaboration with the supply network of industrial gas and medical gas of the Air Water



Next-generation Operation Room "AMhouse"



Group, and also collaborates with each company of the Group. In medical business, for example, we provide diverse environments and facilities required by hospitals in a one-stop solution. In fire extinguishing business, we try to create a new far-sighted business to make an integrated proposal for fire prevention systems for factories and other facilities in collaboration with the Industrial Company of Air Water.

We also focus on building a relationship of trust with customers through 'enhancing the service system,' our major business strategy. We not only sell products, but also provide 'reliable use' for customers after sales. This is reasonable because all three businesses are involved with life."

### Introduction of top-class vibration test equipment in Japan for more safety and security

Japan is one of the countries most frequently hit by earthquakes in the world, and securing resistance to earthquakes in every piece of equipment and facility is a major social issue. Air Water Safety Service has introduced vibration test equipment that verifies the resistance to earthquakes of our products for the purpose of more safety and security to provide society with products that protect people's lives. Tomoyuki Yamamoto, General Manager of Safety Service Division, tells us about the introduction of the equipment.

"As occurrence of major earthquakes is predicted in Japan, the importance of ensuring the resistance to earthquakes of vital facilities including power facilities and communication facilities is increasing. Since our products are involved with people's lives, which requires the same as a matter of



Large Triaxial (longitudinal, lateral, vertical) Simultaneous Vibration Test Equipment

course, we decided to conduct all vibration tests, which had previously been outsourced, by ourselves. The introduction of the highest level of vibration test equipment in Japan has enabled us to integrally guarantee the earthquake-proof safety of facilities and equipment



Vibration Test Center newly established on the premises of the factory of Air Water Safety Service head office



Inspecting components thoroughly

in a wide range of fields, including respirators, fire extinguishing systems, medical gas equipment, operation room equipment, and medical equipment, all in-house. The Vibration Test Center, which installed this equipment and started its operation in April 2016, provides society with safety and security by promptly responding to customers' needs for vibration testing as well as our products."

### Creation and challenging through technology to solve social issues

Transforming disasters and evolving medical care: these are social issues that are deeply involved with life, and also business fields of Air Water Safety Service. How do they solve social issues through their three businesses, medical, fire extinguishing system, and respirators businesses that realize their corporate philosophy "Protect Life and Property" in society? President Ryoichi Aota tells us about their future business development.

"Our businesses are based on high-pressure gas control technology, and we believe that our mission is to solve social issues by technology, and to keep protecting lives. In the future, we will address customers' needs and social issues by enhancing the comprehensive strength in each of our three businesses. Since they are all involved with life, we consider that a service system to ensure after-sales follow-up is another base of our businesses.

Also under the management policies of the Air Water Group, "All-Weather Management System" and "Order Rodentia Style of Business," we aim for stable growth by realizing the All-Weather Management System through well-balanced mutual complimentary operations by three businesses, and by the collaboration with various management resources in the Group."

Further, he explains about new expansion of their respirator development.

"Now we are considering respirators attached with a camera and a communication device for the purpose of improving the safety of firefighters. The target of the development is the Tokyo Olympic Games in 2020."

Air Water Safety Service is trying to open the way to the future by creation and challenging in order to make Tokyo and Japan the safest in the world.

\* We would like once again to express our gratitude for the cooperation by Shigematsu Works Co., Ltd., our sole supplier, and Koyo Shoji Co., Ltd., a distributor in Kanagawa, for the interview of Kawasaki City Fire Department.



Solving Social Issues through Businesses



# Challenge by the Air Water Group not to let carbon dioxide supply be cut off in Hokkaido



Air Water has businesses that make use of characteristic regionality in the Hokkaido area. Its presence is strongly growing in each of its community-based businesses, including industrial gas, medical gas, energy, and agriculture/food businesses. Especially with respect to carbon dioxide supply, the company operates the only plant in Hokkaido, which is located in Muroran City, and has met almost all demand there. In 2012, the refinery that had supplied carbon dioxide materials announced the discontinuation of crude oil treatment (conversion to a petrochemical plant). In response to this, the Air Water Group gathered forces in cooperation with the Nippon Steel & Sumitomo Metal Corporation Group, one of its customers, with the goal of "the continuance of carbon dioxide supply in Hokkaido." We report the background and details here.

### Vast plains of Hokkaido and missions of Air Water

Air Water has a long history in Hokkaido. It dates back to 1929, when Hokkai Sanso was established by interested persons in Sapporo City to use oxygen for medical use also in the private sector.

Since then, it has grown to be indispensable for the industries and living in Hokkaido, with its businesses ranging from industrial gas, medical, energy, and agriculture/food businesses. Akira Fujita, Hokkaido Representative of Air Water, tells us about the characteristics of the region and business.

"In the energy business, we support the security and safety of living close to citizens by covering Hokkaido with about 90 bases as a supplier that provides LP gas directly to residents. In the industrial gas and medical gas businesses, we focus on securing bases and assigning personnel for stable supply, since Hokkaido has a wide supply area as its regionality. As Hokkaido will absolutely be a production base of agriculture and food in the future, we'd like to develop agriculture and food business with the comprehensive strength of Air Water."

### As the only carbon dioxide manufacturer in Hokkaido

Yasushi Sogabe, President of Hokkaido Air Water, tells us about carbon dioxide supply in Hokkaido.

"Air Water supplies almost all carbon dioxide in Hokkaido. The use of carbon dioxide is very wide, and it is used everywhere in people's living and industries for welding, dry ice, soda, fire extinguishing, agriculture (greenhouse cultivation),

and surgery. It is also used to neutralize drainage from tunnel work for extending the Hokkaido Shinkansen Line to Sapporo."

The role of social contribution as the only carbon dioxide manufacturer in Hokkaido is also important. In a fire accident of a car ferry "Sunflower Daisetsu" off the coast of Tomakomai City in July 2015, Hokkaido Air Water, Hokkaido Air Water Engineering, Air Water Carbonic, and Air Water Specialized Transportation worked together and urgently executed supply work of liquefied carbon dioxide for extinguishing the fire and cooling the vessel.

### Crisis of carbon dioxide supply. Gather forces of the Air Water Group and local companies for emergency

In November 2012, JX Nippon Oil & Energy Corporation announced the discontinuation of crude oil treatment (conversion to a petrochemical plant) at the Muroran Refinery based on the "Act on Sophisticated Methods of Energy Supply Structures\*." Kyodo Carbonic, belonging to the Air Water Group, which had received supply of carbon dioxide materials of over 99% purity from the refinery, and had manufactured



**Akira Fujita**  
Corporate Senior Managing Director  
Hokkaido Representative  
Air Water Inc.



**Yasushi Sogabe**  
President & CEO  
Hokkaido Air Water Inc.



ESCAP (Energy Saving CO<sub>2</sub> Absorption Process)

carbon dioxide as the only manufacturer in Hokkaido, faced a crisis of incapability of supply. The Air Water Group and concerned companies took action for this emergency with concerted efforts.

The Air Water Group, which was exploring new suppliers of carbon dioxide materials, recognized a possibility in the proposal of the energy-saving CO<sub>2</sub> recovery system "ESCAP (Energy Saving CO<sub>2</sub> Absorption Process)" from Nippon Steel & Sumikin Engineering Co., Ltd. Akira Fujita, who received the proposal in Air Water, explains about this.

"The proposal included the recovery of highly concentrated carbon dioxide of over 99% purity from carbon dioxide materials of about 20 to 30% purity discharged from the air-heating furnace of the Muroran Works of Nippon Steel & Sumitomo Metal Corporation by 'ESCAP,' a chemical absorption process using an alkaline solution. Air Water adopted this proposal because they can supply sufficient carbon dioxide materials on a continuous basis."

The Muroran Works of Nippon Steel & Sumitomo Metal had originally been a customer of Air Water's on-site plant of oxygen and nitrogen, and has done business with Air Water for years. They were also a customer for carbon dioxide manufactured by Kyodo Carbonic. In other words, the discontinuation of carbon dioxide supply was a situation to be avoided for the Muroran Works of Nippon Steel & Sumitomo Metal as well.

A battle against time started after the supplier was decided. Air Water Carbonic, a new manufacturer of carbon dioxide, and the staff of the Air Water Group companies and the Nippon Steel & Sumitomo Metal Group companies gathered full forces to start to manufacture carbon dioxide from November 1, 2014, with the common goal of "not letting carbon dioxide supply be cut off."

Juichi Morita, Plant Manager of the Muroran Plant of Air Water Carbonic, was in charge of the project when a new

carbon dioxide manufacturing plant was constructed on the premises of the Muroran Works of Nippon Steel & Sumitomo Metal. He tells us how the operation began.

"The biggest issue was that we had to finish by the beginning of operation on November 1, 2014. There was a pile of work, such as adjustment by trial operation, learning the operation of the plant, and analysis for quality control, and we also simulated troubles by freezing weather in the winter in Hokkaido, which made us quite nervous."

However, he says, they managed to survive with a determination that the continuous supply was their social mission, since there was no alternative plant for manufacturing carbon dioxide in Hokkaido.



**Juichi Morita**  
Plant Manager, Muroran Plant  
Air Water Carbonic Inc.

### Creating a community-based business to protect people's living and industries

The project of carbon dioxide supply for Hokkaido based in Muroran was not only about the responsibility of Air Water for the supply, but also involved the national and local governments and local companies, including Hokkaido Bureau of Economy, Trade and Industry of the Ministry of Economy, Trade and Industry, and Muroran City, which was concerned the discontinuation of the supply, and the Nippon Steel & Sumitomo Metal Corporation Group, which proposed the establishment of a plant by new technology, and this achieved success.

As of March 2016, The Air Water Group in Hokkaido has 21 companies and 4,129 employees. The Hokkaido Representative tells us about their future vision lastly.

"We'd like to continue our growth to be indispensable for Hokkaido, aiming to protect the local industries and living, to be based in the community, and to create businesses and jobs unique to the region."

### Building a bond to jointly contribute to carbon dioxide supply in Hokkaido



**Hiroaki Hayashi**  
General Manager, Head of Div.  
Safety, Environment & Plant Safety Div.  
Nippon Steel & Sumitomo Metal  
Corporation, Muroran Works

Nippon Steel & Sumitomo Metal Corporation founded the only integrated ironworks in Hokkaido, located in Muroran, in 1909, and has contributed to the development in Japan. We interviewed Hiroaki Hayashi, General Manager of the Safety, Environment & Plant Safety Division, who is in charge of their Muroran Works, which has provided cooperation for this continuance of carbon dioxide supply in Hokkaido.

"Our Muroran Works produces special steel bars and wires, which are high-quality steel products that are mainly used for automotive parts. We have been deeply linked with Air Water for years, where they supplied us with oxygen and nitrogen for production processes of steel from their on-site plant,

and their Group company in Muroran also supplied us with carbon dioxide. On the occasion of this continuance of carbon dioxide, we established a plant in this Muroran Works by using technology called ESCAP that our group company has, which also provided a good opportunity for us to realize the first commercial-use ESCAP. Since we hoped not only to continue carbon dioxide supply, but also to manage to keep this business in Muroran by regional partnership, we provided maximum cooperation even for a short time."

Other than business purposes, a sense of responsibility and a bond have lied behind the collaboration between companies that have developed in the same area.

\* Act on Sophisticated Methods of Energy Supply Structures: Act for the purpose of the expansion of the use of non-fossil energy sources, and the promotion of more efficient use of fossil energy materials by energy suppliers as countermeasures for the destabilization of the fossil fuel market, and reduction of greenhouse effect gas (enacted in July 2009)



The Air Water Group strives to solve social issues by concentrating its knowledge and expertise in creation and development of businesses linking air, water, the earth, and humans. In this section, we present examples of our activities that contribute to solving the issues facing our society, including: our cooperation with the national project to reduce CO<sub>2</sub>; the Biomass Energy Center that fully utilizes resources; chemical products that contribute to greenhouse gas reduction and energy conservation; and manufacturing and sales of biodiesel fuel.

## R&D and Businesses of Air Water that Contribute to the Environment



### Collaboration in Developing Environmentally Harmonized Steelmaking Process Technology and the Development of a Gas Purification Facility

The "Environmentally Harmonized Steelmaking Process Technology Development (COURSE50)" is underway as a project commissioned by NEDO\*, aiming at reducing CO<sub>2</sub> emissions from the steel sector by approximately 30%. In fiscal 2015, a test scale blast furnace was constructed, and activities to demonstrate effectiveness in reducing CO<sub>2</sub> were initiated. Air Water Inc. is in charge of the facility that supplies mixed gas to this furnace.

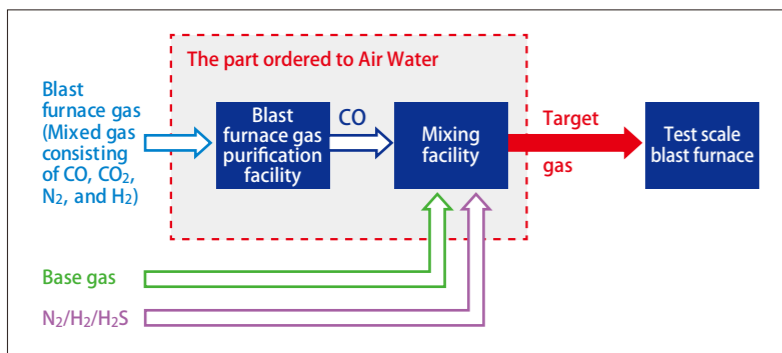
The challenge we faced in developing the facility was how to separate CO and N<sub>2</sub>, which had traditionally been considered difficult. We newly introduced a CO adsorbent that does not adsorb

N<sub>2</sub>, and through R&D, came up with a new type of gas purification facility that makes use of the properties of this CO adsorbent.

With this gas purification facility, we can now extract high-purity CO gas (98%) from blast furnace gas with low CO concentration.

We will continue to contribute to reducing environmental load while responding to the needs for gas purification from various sources.

\* New Energy and Industrial Technology Development Organization



COURSE50 Blast furnace gas purification facility



### Biomass Energy Center That Fully Utilizes Valuable Resources

In May 2016, we started operating the Azumino Biomass Energy Center, which is equipped with a gas co-generation system that utilizes wood biomass available in the region. The Center was constructed within the premises of Azumino Farm of Air Water Farm Co., Ltd. with an objective to supply energy for growing vegetables.

The fuel used for the gas co-generation system is derived from unused wood (such as wood from forest thinning) available in surrounding areas, which is crushed and dried to produce wood chips and then gasified under high temperature. The heat generated by a gas engine is recovered to warm the water, which is supplied to Azumino Farm, thereby increasing the rate of energy use.

From the next fiscal year, there is a plan to use the CO<sub>2</sub> produced as a by-product in the combustion process at the Azumino Farm for photosynthesis in tomato plants, and to use charcoal produced after the gasification process as fuel to dry wood chips. In addition, we are considering using some charcoal at a plant of Air Water Ecoroca Inc. located nearby, as one of the raw materials to produce ECOROCA\*\*, an eco-friendly construction material.

The electricity generated is sold to utilities, but since it is generated by utilizing wood biomass instead of fossil fuel, the system contributes to reducing greenhouse gas emissions.

As described above, the Center is fully utilizing valuable resources from unused wood in forms such as heat, electricity, CO<sub>2</sub>, and charcoal.

Air Water will continue to work on this project as a business model that "combines agriculture and power generation," which contributes not only to reducing greenhouse gas, but also to promoting sustainable agricultural business, in regional development through effective use of forest resources, and to creating stable jobs in the region.

\* ECOROCA\*\* is a compound made of unused scrap wood and waste plastics. It is a construction material that offers both advantages of wood and those of plastic.



An external view of the Azumino Biomass Energy Center



### Products of the Chemical Business that Contribute to Greenhouse Gas Emissions Reduction and Conservation of Energy

Kawasaki Kasei Chemicals Ltd., a company of the Air Water Group, manufactures various types of coal-chemical and petrochemical products. In this section, we introduce two environmentally conscious products: MAXIMOL® and SAQ®.

#### MAXIMOL®, a polyol for rigid urethane foam

Rigid urethane foam has high thermal insulation performance, and is widely used around us as heat insulating material in buildings, houses, freezers and refrigerators, and for other purposes.

Chemicals such as polyols (polyhydric alcohols) and foaming agents are used as raw materials for rigid urethane foam. Specified CFCs, which destroy the ozone layer, were used as foaming agents, but now alternative CFCs are mostly used. MAXIMOL® produced and sold by Kawasaki Kasei Chemicals Ltd. is a type of polyol that can be used with foaming agents based on alternative CFCs.

While foaming agents based on alternative CFCs do not destroy the ozone layer, their high Global Warming Potential (GWP; around 800 to 1,000) had been an issue. The GWP figures of the next generation foaming agents are low (1 to 2), which will be a significant improvement. Materials that use water instead of alternative CFCs for foaming have also been developed.

Kawasaki Kasei Chemicals Ltd. develops and sells a new type of MAXIMOL®, a polyol suitable for these next generation foaming agents and water-based foaming agents, while contributing to greenhouse gas emissions reduction.



Rigid urethane foam and MAXIMOL®

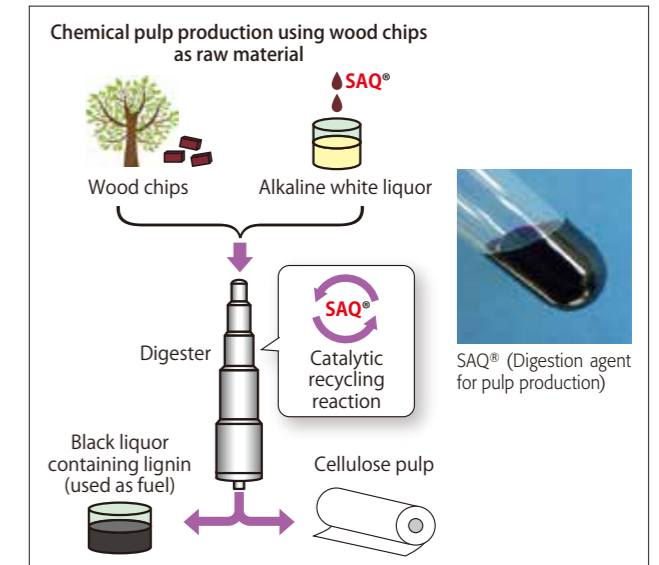
#### SAQ®, a digestion agent used for pulp production

Wood chips used as raw material for paper production are mostly imported from overseas and the price is increasing every year. Paper mills are facing the challenge of improving pulp yield.

SAQ®, a product of Kawasaki Kasei Chemicals Ltd. and a digestion agent for pulp production, is used by most of the paper mills in Japan and by paper mills in the Asia region to improve yield in the digestion process, during which cellulose (fiber) pulp is extracted from wood chips.

In addition to improving yield, SAQ® is also effective in lowering delignification temperature and in reducing digestion time. Furthermore, it enhances removal of lignin, which is a component that contributes to coloring of pulp. These effects help reduce bleach and wastewater load, and to mitigate the issue of odor.

Through SAQ®, Kawasaki Kasei Chemicals Ltd. is contributing to reducing environmental load associated with plant mills by, for example, protecting forest resources, reducing the amount of timber transported, and reducing the use of fossil fuel and CO<sub>2</sub> emissions by lowering reaction temperature.



The role of SAQ® in the digestion process of pulp production

### Biodiesel fuel of Dream Co., Ltd. registered as a recycled product authorized by Hokkaido

In October 2015, a biodiesel fuel (BDF) product manufactured by Dream Co., Ltd. became the first liquid fuel to be registered as a recycled product authorized by Hokkaido. The Hokkaido Recycled Products Authorization System is a system that promotes the use of recycled products, and under the scheme, the Hokkaido government authorizes recycled products that are manufactured in Hokkaido using locally recycled resources and meet certain standards.

Dream Co., Ltd. produces BDF using waste vegetable oil from restaurants, food processing factories, and households in Sapporo City and its suburbs as main raw material. Since vegetable-derived oil is used as raw material, it contributes to greenhouse gas (CO<sub>2</sub>) emissions reduction. The BDF produced by Dream Co., Ltd. has therefore been adopted as an eco-friendly fuel by garbage trucks operated by the Environment Planning & Waste Management Department of Sapporo City, public facilities, and other services.

After being registered as a recycled product authorized by Hokkaido, the BDF has been adopted as fuel for vehicles and heavy equipment used for public works, and also by freight companies. Dream Co., Ltd. issues "certificates" for the amount of CO<sub>2</sub> reduced by using the BDF they have sold, which has been reported in environmental reports prepared by its customers.



Certificate for Recycled Products Authorized by Hokkaido





# Approach to Organizational Governance

ISO26000  
6.2 Organizational Governance

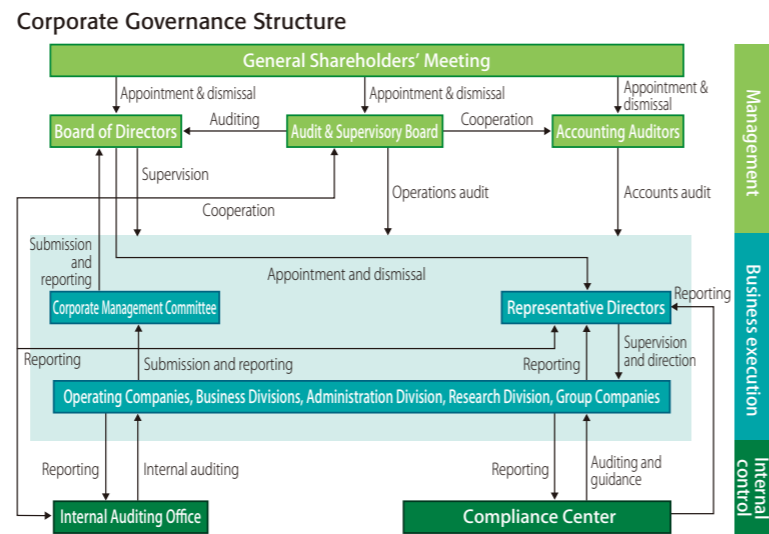
Air Water regards trust by all its stakeholders as indispensably important for its sustained growth. For this reason, Air Water and its Group companies are engaged in activities directed toward highly transparent organizational governance.

## Corporate Governance Structure

### Basic Approach to Corporate Governance

The Air Water Group believes that conducting fair business activities observing social common sense and gaining trust from shareholders, customers, local communities, employees and all other stakeholders is essential for continuous business growth and the maximizing of enterprise value. We view comprehensive corporate governance including an internal control system as the most important management issue for gaining stakeholder trust and fulfilling corporate social responsibility.

Air Water is working to strengthen its corporate governance by constructing a fully functioning management structure for appropriate management decision-making and the proper and swift execution of business based thereon, with supervision and monitoring, while securing management transparency through wide-ranging information disclosure.



### Compliance with Japan's Corporate Governance Code

Air Water Group complies with the requirements of Japan's Corporate Governance Code that the Tokyo Stock Exchange established, effective June 1, 2015. Details of our compliance with the Code are reported in our Corporate Governance Report, which is available to the public on the Company's official website.

## Compliance

### Compliance Framework

As the foundation of its compliance framework, Air Water has established the "Air Water Group Code of Ethical Conduct" to increase awareness about social ethics and law-abiding spirit and to ensure compliance with all applicable laws and regulations. The Code provides all officers and employees of the Company and its Group companies with guidelines to act in strict conformance with the laws and regulations and behave with full respect for social ethics.

### Internal Audits

Internal audits are conducted periodically by the Internal Auditing Office, which is the Company's internal auditing unit, to audit the Air Water Group's compliance with laws and internal regulations, as well as the propriety and appropriateness of its business processes. The Internal Auditing Office also supervises and monitors the construction and administration of internal control systems to secure the reliability and propriety of financial reports, and evaluates their validity as the division in charge under the responsibility and direction of the representative directors.

In addition to the Internal Auditing Office, Air Water has also established a Compliance Center as an exclusive unit for the management and control of compliance, safety, and disaster prevention, environmental preservation, and quality assurance across the Air Water Group.

Under our management structure, the Internal Auditing Office and Compliance Center report to the audit & supervisory board members and to the representative directors as appropriate when their internal audits confirm facts that might have a material effect on Air Water's management.

### Compliance Committee

Air Water has established the Compliance Committee as a consultative body in which relevant divisions get together and discuss compliance issues. The Committee considers specific measures concerning the policies and instructions on compliance given by representative directors, and other issues, and also discusses ways to deal with compliance violations when they occur.

### Internal Reporting System

Air Water has established an internal reporting system in order to manage its business while meeting compliance requirements. Anyone who becomes aware of violations of laws and various internal rules, or any acts which may violate them, can make a report.

Points of contact for reporting have been established both inside and outside of the Company, and there is a provision ensuring that the person who reports will not suffer any disadvantage.

## Risk Management

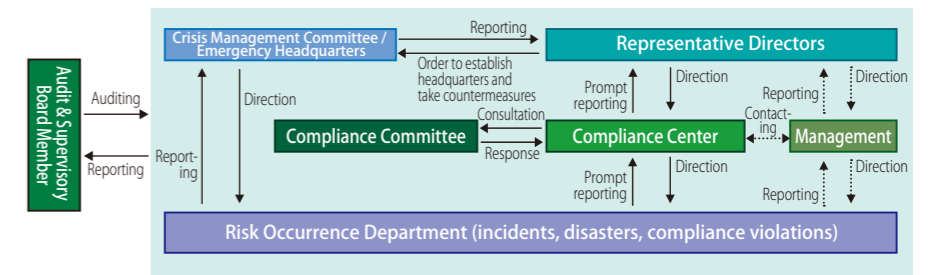
### Risk Management Structure

The Compliance Center, which is under the direct control of the representative directors, manages, as the supervisory division for the entire Air Water Group, the risks recognized as particularly important for business activities of Air Water and its Group companies; namely the risks concerning compliance, safety, disaster prevention, environmental preservation, and quality assurance.

Individual risks concerning information security, quality control, intellectual properties and business contracts are managed through prior inspection and authorization procedures. In addition, by enacting internal regulations and creating manuals, education and training at the level of each responsible division are carried out.

With the Compliance Center serving as the secretariat, the Risk Management Committee has been held regularly, through which

### Risk Management Framework



the status of risk management framework in each division and Group company is assessed, and the risk management framework in the Air Water Group overall is bolstered.

If a risk having significant impact on business activities is realized, a Crisis Management Committee will be established immediately in accordance with the Risk Management Regulations, and a framework for dealing with the realized risk promptly and appropriately will be put in place.

### Observance of the Air Water Group Code of Ethical Conduct Issuance of Compliance Handbook

In June 2016, a copy of Compliance Handbook was distributed to all employees of the Air Water Group. The handbook replaced the brochure titled "Introduction to Compliance" which was prepared in connection with the 2007 establishment of the Air Water Group Code of Ethical Conduct.

The handbook is designed to further increase awareness about the importance of compliance among the employees of the Air Water Group.



### Implementation of a drill (setting up the Emergency Headquarters) in preparation for a major disaster (in Tokyo)

Following the fiscal 2015 drill in Osaka, a major disaster response drill was held in Tokyo during fiscal 2016 in anticipation of wide-area heavy damages by a mega earthquake. Members who are designated to form the Emergency Headquarters underwent a mock disaster exercise designed to increase their initial response and judgment capabilities in a crisis situation.

We improved our imaginations for situations that may be caused in case of crisis and enriched our understanding of activities necessary for providing quick response.



## Our Relationship with Shareholders and Investors

### Communication with Shareholders and Investors

Air Water is devoted to building a stable, trusting, long-term relationship with our shareholders and investors. Accordingly, one of our roles is to help promote understanding of our unique business strategy and model, which is based on a multi-business structure characterized by continuous growth and change. To this end, we maintain positive communication, disseminating appropriate information at the right time through our website and publications, and through IR activities both in Japan and abroad.

Twice a year we issue Air Water Report for Shareholders with a view to keeping our shareholders updated on our businesses and performances in an easy-to-see manner. For institutional investors and analysts, we offer field trips to Group facilities in Hokkaido, Kansai, and other locations. In addition, we hold a conference call about our financial results and arrange for various special meetings once a quarter, in order to make them deepen their understanding of Air Water.



A scene from a field trip



Report to shareholders





## Involvement with Customers (Offering Safe and Secure Products and Services)

ISO26000  
6.7 Consumer Issues

Air Water is working every day to offer products and services that meet our customers' high expectations and earn their trust. And the entire Group is pursuing efforts toward further improvement of quality, focusing on safety and security.

### Company-Wide Policy on Quality

Air Water has established the Company-Wide Policy on Quality, which is a common policy applied to each division and Group company, as follows.

#### Company-Wide Policy on Quality

Offering products, goods, and services  
with quality appreciated by our customers  
with a word of thanks.

### Efforts for Quality Control of Medical Equipment

All the medical equipment we provide, such as artificial respirators and home oxygen concentrators, has broad use in medical services. As such, we consider that assurance and maintenance of safety and quality is an important issue we must be mindful about at all times. In this context, Air Water obtained ISO13485 certification, an international standard for quality management systems of medical equipment, in October 2015.

ISO13485 is a system operated to assure quality of medical equipment. Quality of international standards is assured through compliance and operation of the system. The system also allows quality to be maintained uninterruptedly by receiving examinations every year.

Air Water will continue to comply with and operate ISO13485 to always provide safe, secure, and high-quality medical equipment to patients.

Concerning medical equipment, we are pursuing the introduction of the quality management system (QMS) required for the manufacture and sales of the equipment, in accordance with the revised Pharmaceutical and Medical Device Act.



ISO13485 Certification

### Measures for Quality Control of Industrial Gases

We want our customers to use industrial gas with a sense of security at all times. Toward this end, we established the "Remote Control Support Center" in April 2016, and set up a system to monitor around 230 manufacturing facilities in the country, 24 hours a day. The system allows swift response in case of an alert, and also enables more stable gas supply through the use of data from the facilities to take preventive maintenance measures and to improve facilities.

Furthermore, we have started the "Accreditation Scheme for Workers Engaged in Gas Analysis," focusing on analysis conducted on-site for building construction and other activities. The scheme accredits skills of workers who implement the analysis, and 115 workers have already obtained the certification.

The Scheme, in combination with the "Gas Analysis Technique Certification System," under which manufacturing facilities have already obtained certification, assures quality of the product gas delivered to our customers based on reliable analysis technique for product gas.

Through these activities, the entire Group maintains production facilities and product gases in an integrated manner and will ensure stable supply to our customers, applying the "Air Water Quality."



Remote Monitoring & Support Center



Certification for Gas Analysis Workers

### Measures for Quality Assurance

#### Efforts on Quality Management Systems

In the Air Water Group, each Group company has acquired quality management system certifications (ISO9001 and ISO13485).

Within the Air Water Group, we are conducting courses to train internal auditors, and providing support for obtaining certifications for quality management systems and for continuous improvement.

A course to train ISO9001 internal auditors was conducted in two locations during fiscal 2015, with participation by employees from the Air Water Group.

#### Sharing Information on Quality Assurance

Air Water issues "Quality Assurance Information" and circulars to share information on quality assurance with responsible officers and focal points for quality assurance in all divisions and the Group companies. Circulars issued in fiscal 2015 included a notification on the company-wide quality target for the fiscal year, and announcements for quality assurance workshops.



Quality Assurance Information

#### Workshop on Quality Assurance

Air Water holds various types of quality assurance workshops with an aim to raise awareness on quality assurance and to share information and technologies within the Air Water Group. The following two workshops were held in fiscal 2015.

- A workshop targeting young technical staff in the Group companies (held in three locations in the country) "Quality Control Seminar" to gain the basics of quality control
- A workshop targeting top management, officers responsible for administration, heads of divisions, internal auditors and other officers in the Group companies (held in three locations in the country)

In view of the revision of the ISO9001:2008 quality management system and the release of ISO9001:2015 on September 15, 2015, an external lecturer made a presentation on "the revision of the ISO/JIS Q9001:2015 standard and what should be done with the manual in response to the transition."

We will continue to hold quality assurance workshops in a systematic manner, to raise awareness on quality assurance and to promote the sharing of information and technologies within the Group.



Workshop on quality assurance

### Measures for Food Safety

#### Food Safety System

Air Water launched the "Quality Control Project" related to agriculture and food products business in April 2015. We are having regular meetings, as well as on-site checks as necessary, aiming at improving quality control systems of the Group companies and to bring severe claims down to zero.

We have also developed a Group-wide quality standard and conducted a self-inspection at each food product factory. This process can be used to objectively identify the strengths and weaknesses of management in our own factories.

As explained above, we work every day to improve ourselves by reinforcing quality control from both tangible and intangible aspects, so that we can deliver safe food materials for our customers' use.



A Scene of inspection at a food product factory

#### Staff Workshop Efforts on Food Safety

Air Water implements staff workshops on food safety aiming at sharing information and technologies concerning "food safety and security," improving knowledge and awareness on the same, and preventing food accidents.

In fiscal 2015, a workshop was held in November. Participants in the workshop consisted of staff members from the divisions involved in food products and staff members in charge of quality control and quality assurance from the Group companies. In the reported year, the workshop included the following activities: a visit to the Sanuki Plant of Nihonkaisui Co., Ltd., a leading company of edible salt; reporting of activities implemented by the companies after introducing the food safety management systems for which they have been certified (ISO22000, FSSC22000, the Comprehensive Sanitation Management and Production Process, etc.); and lectures by external lecturers on the themes of



Visiting a salt production facility at the Sanuki Plant of Nihonkaisui

"Establishing an effective food safety management system (FSMS)," and "Education and training system for employees."

With an increasing number of companies joining the Group, we will continue with these food safety education programs toward improved control and assurance of product quality.





# Relationship with Employees

(Toward Creating a Workplace Environment in Which Employees Can Work with a Sense of Security)

ISO26000  
6.4 Labor Practice

Air Water believes that ensuring safety is a prerequisite for business operation and that the very existence and prosperity of the Group would not be possible without safety and security of its employees. Guided by our Safety and Health Basic Policy, we work to share safety information widely, and create a workplace environment where safety is the first priority, with a view to achieving zero work-related accidents.

## Safety and Health Basic Policy

Air Water has established the "Safety and Health Basic Policy" as the basics for measures concerning safety activities, and is working on the activities.

### Air Water Group Safety and Health Basic Policy

1. We aim to achieve zero work-related accidents, and advance comprehensive and systematic safety measures.
2. We promote the formation of a comfortable workplace environment, while securing employee safety and health.
3. We comply with all related laws, and create workplaces with clear lines of responsibility concerning occupational safety, traffic safety, occupational health, as well as safety and disaster prevention.

Based on the above policies, we conduct safety and health training to increase the "safety and health first" awareness among all employees and to nurture a corporate culture for it.

## Safety and Health Structure

Air Water has established a Central Safety and Health Committee structure to secure workplace safety and health. The Central Safety and Health Committee meets on a regular basis under the Safety and Health Management Headquarters Director, with the participation of the committee member responsible for safety, the committee member responsible for health, 25 chairpersons of the Health and Safety Committees, and officials from the Air Water labor union.

To help enhance safety awareness among employees and provide motivation, the Company gives awards at the end of every fiscal year to Air Water business locations and Group companies with a five straight year record of zero accidents or injuries.

The minutes of Central Safety and Health Committee meetings are disclosed internally using corporate networks for information sharing.

### Safety and Health Structure Chart

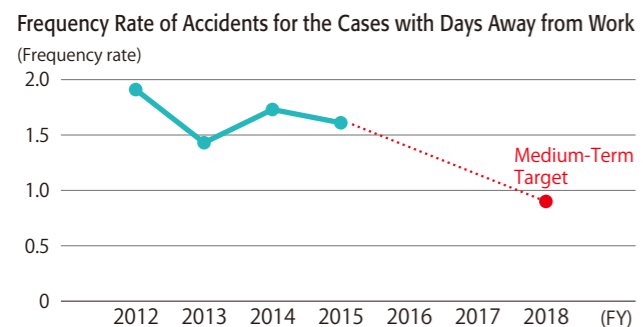


## To Achieve Zero Work-Related Accidents

### Industrial Accident Statistics

In fiscal 2015, 54 cases with days away from work were reported within the Air Water Group. The number increased from 53 cases in fiscal 2014. Meanwhile, the frequency rate of accidents\*1 for the cases with days away from work in fiscal 2015 was 1.61, and remained flat.

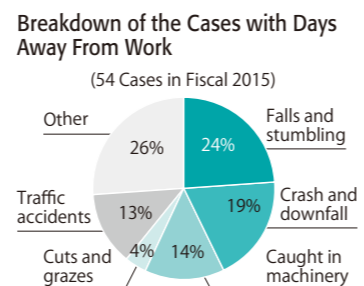
In fiscal 2016, we continue to work intensively to realize the medium-term target of 0.90 or below for the frequency rate of accidents.



When looking at the causes of accidents in fiscal 2015, "cases of falls and stumbling" and "cases of crash and falling down" together accounted for about 40%. When "cases of getting a finger, hand, arm, or foot caught in machinery" and "cases of cuts and grazes" are included, they together accounted for about 60%.

\*1 Frequency rate of accidents for the cases with days away from work is an indicator for the frequency of industrial accidents. It is a rate expressed by the number of people encountering an accident per one million total working hours.

Taking into consideration the types of business as well as the number and composition of employees, the Air Water Group has set the medium-term target of the frequency rate of accidents for the cases with days away from work as 0.90 or below, for the period fiscal 2016 to fiscal 2018.



Range: Air Water Inc., consolidated subsidiaries, equity-method subsidiaries, equity method affiliates, non-consolidated subsidiaries

## Efforts for Reduction of Industrial Accidents

To eradicate industrial accidents, we need to maintain the stance to analyze accident records and draw lessons from them to prevent recurrence. At Air Water, the Compliance Center plays the pivotal role in accident analysis and development of various programs for reduction of industrial accidents in the Group.

Here, we explain four such programs: (1) campaigns and training with focus on the causes of industrial accidents, (2) intensive campaigns focused on the business segments with unsatisfactory

safety records, (3) chemicals risk assessment training to prepare for the enforcement of the revised Industrial Safety and Health Act, and (4) safety training for different groups of employees to intensify the zero industrial accident campaign.

This multi-faceted approach is intended to activate safety and health activities at every workplace and ingrain strong awareness about work safety in every employee.

### (1) Approach from the causes of industrial accidents

"Falls and stumbling" and "crash and falling down" together account for about 40% of the causes of accidents that occur in the Air Water Group. At Air Water, we introduced the "Fall accidents eradication campaign" in fiscal 2015. The campaign continues in fiscal 2016 with addition of "crash" prevention measures.

Our ongoing safety programs to promote industrial safety and health include: putting up "No Crash, No Downfall" posters at potentially dangerous locations, workplace patrol using the "No Crash, No Downfall Check List," the 4S-method (sort, set in order, shine, standardize) of workplace maintenance, and visibility enhancement of dangerous spots.

During fiscal 2015, a seminar on prevention of crash and downfall was held for the Hokkaido Region that had relatively poor records of crash and downfall accidents. The seminar was attended by representatives of all business segments in the area and covered accident cases and the causes of the accidents, relevant laws and regulations, safety measures, and risk assessment exercise to help strengthen workplace safety training.



No Crash, No Downfall poster

### (2) Approach by business segment

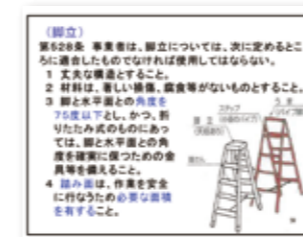
About 50% of "caught in machinery" and "cuts and grazes" accidents in the Air Water Group occur in the Agriculture and Food business segment.

To prevent these types of accidents, measures on human factors are needed in addition to those on physical factors. KYT (hazard prediction training) and other safety trainings are important to make operators fully aware of the risks involved. Effective physical measures include attaching a protective cover and adding an interlock system (to shut down the machine if a hand gets too close) so as to eliminate "dangerous" operations.

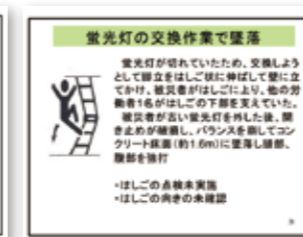
During fiscal 2015, a seminar on prevention of getting caught in machinery and cuts and grazes was held for the Agriculture and Food business segment. The seminar covered the causes of the accidents, laws and regulations related to food processing machinery, safety measures, and risk assessment exercise to help strengthen workplace safety training.



No Caught in Machinery Seminar



No Crash, No Downfall Seminar textbook



"No Caught in Machinery Seminar" textbook



### (3) Approach from chemicals risk assessment

In preparation for the June 1, 2016 enforcement of the revised Industrial Safety and Health Act making chemicals risk assessment mandatory, Air Water conducted already in fiscal 2015 chemicals risk assessment training at business locations producing or handling chemical substances.

The training course consisted of: (1) risk assessment to prevent explosion and fire by which risk factors of hazardous materials (explosives, ignitable substances, inflammables) and ignition sources (matches, electric sparks, statics, etc.) are identified, and (2) risk assessment to prevent health hazard of operators handling chemical substances by which the degrees of potential health hazard and chemicals exposure are evaluated to determine the risk. Exercises were conducted with respect to the chemical substances that are most commonly handled at different locations of the Group.

The training will continue in fiscal 2016.



Basic training of risk assessment

### (4) Approach through various safety training

Air Water has in place various safety training programs to intensify its efforts to achieve Zero Industrial Accidents. In the course of fiscal 2015, we conducted Safety Staff Training, inviting safety and health staff members of the Group, and High Pressure Gas Safety Technical Staff Training directed for staff members involved with high pressure gas equipment.

In addition, Learning by Doing Safety Training is given to field operators and Basic Risk Assessment Training is carried out for Group safety and health staff, frontline supervisors, and field operators.

The Safety Staff Training has the objective of sharing industrial and traffic accident information and spreading the safety measures throughout the Group. The Learning by Doing Safety Training is designed to have the participants deepen knowledge about the concept of risk and safety, and acquire the ability to sense and feel the risks potentially existing in the workplace, thus contributing to accident prevention.

Through these training programs, we work to develop human resources with high awareness of safety. At the same time, these training programs provide opportunities for employees of different backgrounds to know each other better.



Learning by Doing Safety Training

#### Training in fiscal 2015 (frequency)

Safety Staff Training	1
High Pressure Gas Safety Technical Staff Training	1
Learning by Doing Safety Training	5
Basic Risk Assessment Training	6
Chemicals Risk Assessment Training	3
No Crash, No Downfall Seminar	1
No Caught in Machinery Seminar	1

### Safety Slogans

On the occasion of "National Safety Week," which is held every July, Air Water solicits "safety slogan" proposals from all employees, including employees at Group companies, in order to raise awareness of safety.

This contest provides a good opportunity for employees to think about safety at work and at home, and in fiscal 2015, there were 5,194 proposals.

An award is given for the best entry, and the slogan is displayed on posters in each workplace. In addition, the company with the highest entry rate and the company that provided the largest number of proposals are given awards for company excellence in safety and health in the Group, with the aim to recommend company-wide positive activities.



Safety slogan poster (FY2015)

### Sharing Safety Information

Air Water distributes "Safety Information," which includes information such as on the accidents that occurred within the Group and to promote activities for occupational safety and health at each workplace, through the corporate network.

An incident resulting in lost worktime is often a trigger for a major, more serious accident. Accordingly, we immediately carry out risk analysis of an incident and document the direct causes and the countermeasures for recurrence prevention. The information is disseminated throughout the Group.

The sharing of information and its infiltration into employees increase awareness about the working environment and promote the horizontal spread of the workplace improvement activities, thus leading to prevention of similar accidents.



Safety Information



## Relationship with Employees

(Making the Best Use of Diverse Human Resources, and the Efforts concerning Human Rights)

ISO26000

6.4 Labor Practice

6.3 Human Rights

The Air Water Group comprises a wide range of companies engaged in diverse businesses. We work diligently to protect the human rights of the diverse human resources, honor their respective personalities and individualities, and ensure that every member feels the true joy of working.

### Managing Proper Working Hours

Mental and physical health of each and every employee is the foundation for efficient and effective development of his/her individual potential in a variety of work scenes. Efficient and effective work style is conducive to healthy work-life balance. Proper management of working hours is essential for these objectives.

Recently, increased cases of brain and heart diseases and mental disorders as well as accidents and incidents caused by excessive work have emerged as a serious social problem. Simultaneously, inappropriate management of overtime work in some companies has come to light. To prevent such problems from creeping into our organization, Air Water has established guidelines to ensure proper management of working hours in conformity with the Labor Standards Act and the Standards on Measures to Be Implemented by Employers for Proper Grasp of Working Hours, and make continual efforts for Group-wide proper management of working hours.

#### "Merihari 20" (on-off 20) campaign

In July 2015 the Osaka Head Office of Air Water launched the "Merihari 20" campaign in a joint effort by management and the labor union. The initial goal is that everyone leaves the office by 8:00 p.m. The true objective, however, is to promote cooperation and collaboration within a business segment and within a team. Through this campaign, all members of a segment and of a team are encouraged to participate, discuss, and suggest ideas

to devise methods and targets to promote efficient and effective work processes, and work together with mutual understanding and cooperation to attain the targets.

#### Distribution of Safety and Health Committee News

Publication of Safety and Health Committee News began in fiscal 2015 to familiarize employees with the activities of the Committee.



#### IC card reader installed

Starting in April 2016, IC card readers were installed at the Head Office and offices in Tokyo and Sapporo. Accurate recording of times of arrival and leaving office helps ensure proper management of working hours.



### Efforts to Promote Female Employment

Air Water takes various initiatives with our basic policy of promoting full performance of female workforce by hiring and developing female employees who can make genuine contributions to the Company and enhancing the strength of the organization through further diversification of its human resources.

At present there are problems in this respect, such as the gender difference in recruits, because of the relatively small number of female applicants and the fewer number of female managers

than male. Creation of systems and an environment to support continued service of female employees is an urgent task. Air Water accordingly has initiated in fiscal 2016 a 5-year action plan to increase the ratio of female new recruits and supervisors and to enhance measures for continued service of female employees.

The basic policy and the action plan are publicly available on Air Water's official website.

### Relationship with the Labor Union

Air Water believes that relationship between labor and management is like the wheels of a vehicle. We strive to establish a firm collaborative relationship that always advances in the right direction through mutually exchanging frank opinions while respecting each other's positions and maintaining a certain distance.

In fiscal 2015, we discussed efforts on safety and health, promotion of appropriate management of working hours, promotion of opportunities for female workforce, and company support to work and family harmonization during major life events at the monthly joint management council. At the central round-table conference between labor and management held at the time of

the regular meeting of the labor union, the Company explained the current profitability and priority management policy, and at the same time, appropriate management of working hours, safety and health, responses to globalization, and other topics were discussed.

Aside from the above, the wage committee, an advisory body for employees' wages, meets to discuss revision of the wage table so as to reflect the results of wage system examination and analysis.

Labor and management will continue to work together and strive to create a corporate culture that becomes the foundation of our future growth.



### Efforts on Human Right Issues

Air Water has established the "Air Water Group Code of Ethical Conduct" in which the code of conduct concerning workplace environment is stipulated as follows.

1. Unwelcomed words or actions of a sexual nature in the workplace are not tolerated. Sexual harassment should never be accepted.
2. Individual human rights are respected. Discrimination on the

basis of gender, nationality, beliefs, race, age, social status, disability, or any other irrational reason unrelated to performance of duties is prohibited and should never be accepted.

Training participants consider and summarize the relationship of these matters with their duties and create reports before taking personnel training. At the training, they participate in group discussions based on their reports.

### Making the Best Use of Non-Japanese (Global) Personnel

Air Water (Suzhou) Co., Ltd. is an Air Water subsidiary in China based in Suzhou and engaged in the production and sale of industrial and medical gases. Mr. Ge Yifeng, Manager of Personnel and General Affairs, is a Suzhou native and is also responsible for safety management of his company. As Safety Supervisor, he oversees and gives guidance on safety and security matters.

"Being a producer of hazardous chemicals, our company is a focus of attention by the Chinese regulatory authorities. In recent years in China, several people have died in major accidents at hazardous chemicals plants. The government has stepped up its supervision and monitoring."

"Almost every month we receive an audit or guidance from

authorities of safety management, firefighting, transportation management, environment, etc. with regard to our implementation of safety policy and submission of improvement plans. As a supervisor responsible for security and safety, I do my best to make correct responses. Also, I work to increase the safety awareness of our employees."



**Ge Yifeng**  
Personnel and General Affairs  
Manager  
Air Water (Suzhou) Co., Ltd.

ISO26000  
6.6 Fair Operating Practices



## Promotion of Fair Business Practices

For the continued growth of its business, Air Water strives to comply with laws and observe agreements with our customers and suppliers, and to maintain and improve our trusting relationship with our stakeholders. The Company promotes fair business practices and would like to grow together with its stakeholders.

### Purchasing Approach

Air Water has established its purchasing approach in the purchasing management regulations as follows.

- Air Water always conducts its purchasing activities in a proactive manner, thereby contributing to the development of the Company's business.
- Air Water builds long-term relationships of trust with its business partners on the basis of free competition, equality, and mutual trust so that as good partners, each party can exercise its capabilities to a higher degree in pursuit of mutual prosperity.
- Air Water selects its suppliers based on a comprehensive

evaluation of the economic rationality of their goods and services. Selection is made without regard to nationality, location, or size of business, and new entrants are always given a fair and impartial opportunity to participate.

- In conducting its purchasing activities, Air Water considers conservation of resources and environmental protection in order to achieve harmony with the environment. In addition, the Company ensures that related laws as well as the "regulations" and "circulars" of the Company are fully understood. The Company is obligated to comply with the same.

### Fair Dealings

The Air Water Group has identified thorough compliance with laws and regulations as one of its priority management issues.

In 2015, the fact that falsification and deception of data of foundation pile work made a condominium in Yokohama City incline emerged as a social issue, where compliance with the Construction Industry Act when carrying out construction work became an important issue.

In light of such circumstances, the Air Water Group held a workshop for employees of the Group companies who were engaged

in construction work in order to ensure thorough awareness of and compliance with the requirements of the Construction Industry Act.



Workshop on the Construction Industry Act



## Making Progress and Growing Together with Local Communities

ISO26000  
6.8 Community Involvement and Development

The Air Water Group has nine Regional Business Companies throughout the country and more than 220 various Group companies. It is essential for these companies to be trusted by local communities, in order to be closely tied to local communities and pursue businesses rooted in local communities. Each company is striving to become a trusted presence as a member of the local community.

This section presents some of the diverse activities conducted by the Air Water Group in order to contribute to health promotion for the community, through introducing health support activities in Matsumoto City, Nagano.

### Health Support Activities in "Shisuien," a Public Accommodation Facility in Matsumoto City, Nagano

"Shisuien" is a public accommodation facility located in Matsumoto City, Nagano. Since April 2015, it has been managed and operated by the Air Water Azusa River Area Development Community, which was formed by four Air Water Group companies (Shinano Air Water Inc., AW Anjuri Co. Ltd, Finefoods Co., Ltd. and Air Water Inc.).

You can stay there, and take a day trip to take a bath, have a meal together, and hold a meeting. It has barbecue facilities and a campsite as well. There you can enjoy the nature of the Shinshu area in various ways, such as the view of the Japanese Alps and rafting in the Azusa River next to the facility. Its delicious meals made of local ingredients are also popular.

In Shisuien, Air Water holds diverse health classes, which are helpful for the health development of the local people including "Body Assessment," "Healthy Yoga class," "Sole Balance and Walking course," and "Health Measurement." Most of the participants are in their 40s through 60s and live in Matsumoto City. A total of over 1,100 people participated from May 2015 to the end of June 2016.

In April 2016, "Active checkup," which combines a medical checkup and Body Assessment, started in collaboration with Matsumoto City Hospital. This program supports continuous health development through exercise and a nutrition course in follow-up classes, and physical assessment.



Walking around the Azusa River endowed with nature under the direction of the instructor



Exercise to resolve locomotive syndrome\*

\* Status that an ability of moving the body, including standing and walking, starts to decline



Sole Balance measurement

Air Water's Healthy Exercise class aims to execute the "Healthy Life Expectancy Extension Project" promoted by Matsumoto City, and originates from the "Alive and Kicking Exercise Class" targeting the general public, which was conducted at the "Life Assist Center Matsumoto" (in Matsumoto City) in 2013. Afterwards, when we were commissioned as the designated manager of Shisuien, the class was to be conducted there, and started in May 2015.

We prepare programs that effectively combine healthcare and exercise/diet therapy for individual users under the supervision of the Faculty of Health and Well-being of Matsumoto University, with Air Water employees who are qualified as health fitness programmers serving as instructors. Our Healthy Yoga class conducted by external qualified instructors is popular among women, and provides authentic yoga for numbers of people by more frequent implementation.

Air Water will always support the health of the people in the community through Shisuien.



Appearance of Shisuien

#### Comments from participants

##### Sole Balance and Walking course

"I felt comfortable after walking in the right way"  
"It was my first time to have Sole Balance measurement, and I had another look at my posture"

##### Body Assessment

"It was very useful to know the detailed data on my body"  
"It was good to learn an exercise method suitable for me during the individual instruction in the program"

#### Instructor Shigeno

The feedback from the participants made me realize that programs motivate health development suitable for each user. I'm glad that I've been working as an instructor. I'd like to make efforts for continuous support to hear people say "I've become healthy and fit since I came to Shisuien."





# To Continue Protecting Our Precious Earth

ISO26000  
6.5 The Environment

The Air Water Group is engaged in a business that uses resources of the earth, including air and water. As such, the Group believes that activities to preserve the global environment are essential for the sustainable growth of companies.

On the basis of this idea, the Air Water Group takes global warming countermeasures, effective use of resources, and reduction of chemical risk as major issues related to the environment, and the entire Group is pursuing environmental management under the Environmental Basic Policy.

## Environmental Basic Policy

The Air Water Group has established the Environmental Basic Policy as the basics for measures on environmental activities, and is promoting the activities. We revised the Policy partially in April 2016 in order to deliver on our commitments to make efforts for the three major issues.

Air and water—we are stewards of the great gifts of nature, and must consider ways of manufacturing products that are best for nature while also best for industry and life. We will allow air and water to return to nature after being used by human beings—to regain their pure, original state. We deeply believe that this is our responsibility to the future. We seek to be a company grounded in the providence of nature and the cycle of life. We aim to recycle the earth's precious resources.

### Environmental Basic Policy

- 1 We work on prevention of environmental pollution, global warming countermeasures (mitigation and adaptation of climate change), effective use of resources, and reduction of chemical risk in all our business activities from research and development to production, sales, logistics, and service.
- 2 We research and examine the impact on the environment resulting from our business activities, establish technically and economically feasible goals for reducing environmental load, and promote environmental conservation activities. Also at the same time, we continually try to improve our environmental management system.
- 3 We comply with environmental laws and regulations, establish voluntary standards as necessary, and work for environmental conservation.
- 4 We select resources (facilities, raw materials, subsidiary materials, components, etc.) required for business activities that satisfy technological and economic demands, but which also have a small environmental impact and little negative affect on local residents and employees.
- 5 Our research and development work gives consideration to the environment, safety and quality, and provides products, goods and technology development that contribute to the environment.
- 6 We promote acquisition of the ISO 14001 international standards for environmental management systems, and arrange structures for implementing our Environmental Basic Policy.
- 7 We use internal publicity and other activities to boost all employees' understanding and awareness of the Air Water Group Environmental Basic Policy. We disclose this Environmental Basic Policy to the general public.

## Environmental Management

### Environmental Management Structure

The entire Air Water Group is working on environmental activities with our Chairman of the Board as the chief executive responsible. The central role is played by the Environmental Management Promotion Department of the Compliance Center, which provides guidance on compliance with environmental laws and regulations at workplaces and Group companies, promotes activities to reduce environmental load, and supports the activities to obtain and maintain ISO 14001 certification.

### Efforts on Environmental Management Systems

In accordance with the Environmental Basic Policy, the Air Water Group promotes acquisition of ISO 14001 certification, which is an international standard for environmental management systems, especially at manufacturing plants inside the Group which have a high environmental impact. Certification has now been obtained for 30 organizations.

\* See our website for the status of ISO 14001 certification acquisition:  
<http://www.awi.co.jp/english/csr/>

## Environmental Risk Management

### Publication of Environmental Information

The Air Water Group publishes *Environmental Information* to provide information, such as information on amendments to environmental laws and regulations and environmental conservation efforts by other companies for workplaces and Group companies. Six issues were published in fiscal 2015, featuring information on the complete enforcement of the Revised Water Pollution Control Act and other topics. We share information in the Group to reduce environmental risk.



Environmental Information

### Environmental Audits

The Air Water Group conducts environmental audits to guide environmental preservation activities and compliance with environmental laws and regulations.

The Environmental Management Promotion Department of Air Water develops an annual audit plan based on the level of environmental load, the status of ISO 14001 acquisition, past results of environmental audits, and other aspects concerning the plants of the Group to conduct environmental audits.

In fiscal 2015, environmental audits were conducted in 31 business establishments. In addition, two audits were conducted for business establishments having a license to collect and transport industrial waste.



Environmental audit

## Education and Human Resources Development

### Environment Management Staff Training Session

The Air Water Group holds workshops for educating personnel at workplaces and Group companies about environmental activities and so on.

In fiscal 2015, Actions for ISO 14001: 2015 standards was selected as the theme, targeting persons in charge of environmental management at sites that have obtained ISO 14001 certification and the Secretariat. The workshop included the explanation on ISO 14001: 2015 standards by an outside lecturer, group exercises, and the presentation on activities of ISO 14001.



Environment management staff training session

### Waste Management Training Session

As the Waste Disposal and Public Cleansing Act has been reinforced year after year, revision of the law has clarified that the original contractor shall assume the responsibility for the treatment of industrial waste associated with construction work. We invited an outside expert lecturer to hold a training session for the companies in the Air Water Group which are original contractors or potential original contractors of construction work in order to deepen their understanding of the proper treatment of waste produced at construction work sites.



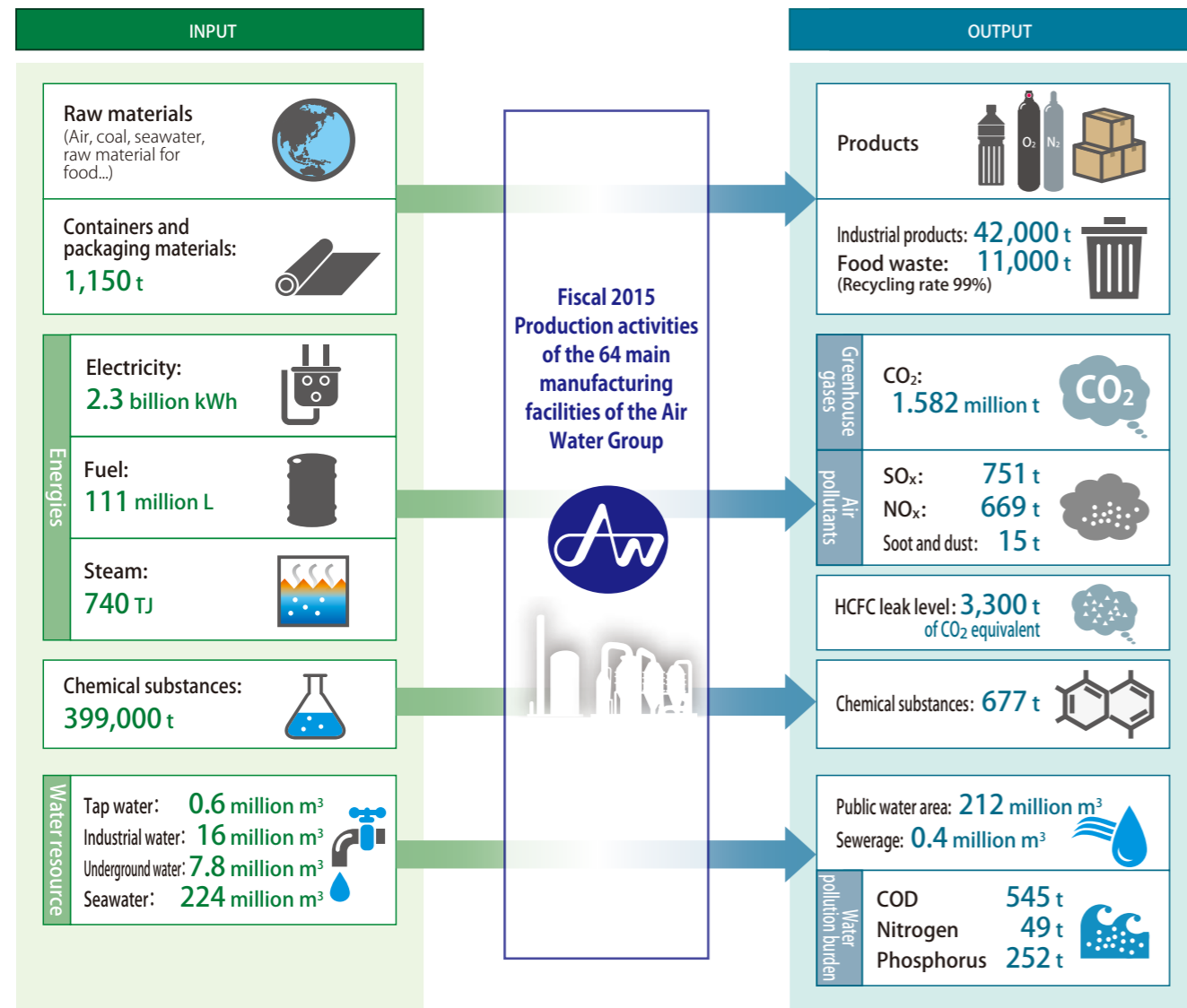
Waste Management Training Session

Training material



## Materials Balance (Overall Picture of the Environmental Impact)

Providing customers with safe and secure products created from the earth's resources such as air and water, and returning them to nature after they have been used—The Air Water Group's business activities can be said to be doing work involved with the earth. Air Water accurately tracks the resources, energy, and other inputs to its production activities, as well as the manufactured products, waste products, and other outputs, and works to reduce its overall environmental impact.



### Scope of collection of environmental performance data

Air Water Inc. and 27 Group companies\* which have a high environmental load (28 companies in total)

\* Companies which are specified business operators under the Energy Conservation Act, businesses discharging a vast quantity of industrial waste, companies under the Law Concerning the Improvement of Pollution Prevention Systems, and companies that release and transfer to the environment 1 ton or more of Class I Designated Chemical Substances under the Pollutant Release and Transfer Register Act

#### ■ 27 Group companies

**Industrial Gas Business:** Air Water Carbonic Inc., Air Water Bellpearl Inc., Shinko airTech Ltd., NCSS Air Water Inc., Daio Inc., Matsuyama Oxygen, Inc., Sagamiyama Ekisan Co., Ltd., Shizuoka Ekisan Co., Ltd., Shinano Ekisan Co., Ltd., Tokai Ekisan Co., Ltd., Niigata Ekisan Co., Ltd., Fukushima Ekisan Co., Ltd., Tomakomai Kyodo Oxygen Co., Ltd.  
**Chemical Business:** Kawasaki Kasei Chemicals Ltd., Sun Chemical Co., Ltd.  
**Medical Business:** Air Water Safety Service Inc., Saito Medical Industries Inc.  
**Agriculture/Food Product Business:** Air Water Farm Agricultural Production Corporation, Gold Pak Co., Ltd., Saver SS Inc., Tomiichi Co., Ltd.  
**Other Business:** Air Water NV Inc., Air Water SOL Inc., Air Water MACH Inc., Tateho Chemical Industries Co., Ltd., Nihonkaisui Co., Ltd.  
**Regional Business Company:** Chuushikoku Air Water Inc.

- Material Balance: 64 domestic plants of 28 companies in the left column
- Measures to address global warming (P. 30)
  - Measures at plants and offices: 22 specified business operators under the Energy Conservation Act
  - Measures in the transportation field: efforts as a freight consigner: 2 specified consigners under the Energy Conservation Act
  - Efforts as a transportation business: 1 specified carrier under the Energy Conservation Act
- Effective use of resources/reduction of chemical risk (P. 31)
  - Amount of industrial waste discharge: intended plants for material balance
  - Food recycling: 3 businesses discharging a vast quantity of food waste under the Food Recycling Law
  - Production volume and import volume of chemical substances: 4 companies subject to the notification under the PRTR Act.
  - Release amount and transfer amount of chemical substances to the environment: intended plants for material balance



## Measures to Address Global Warming

The Air Water Group uses a great deal of energy for its business activities. As a Specified Business Operator under the Energy Conservation Act, the Company is working to track energy use accurately and conserve energy in all its operations, including not only plants, but also offices and research facilities.

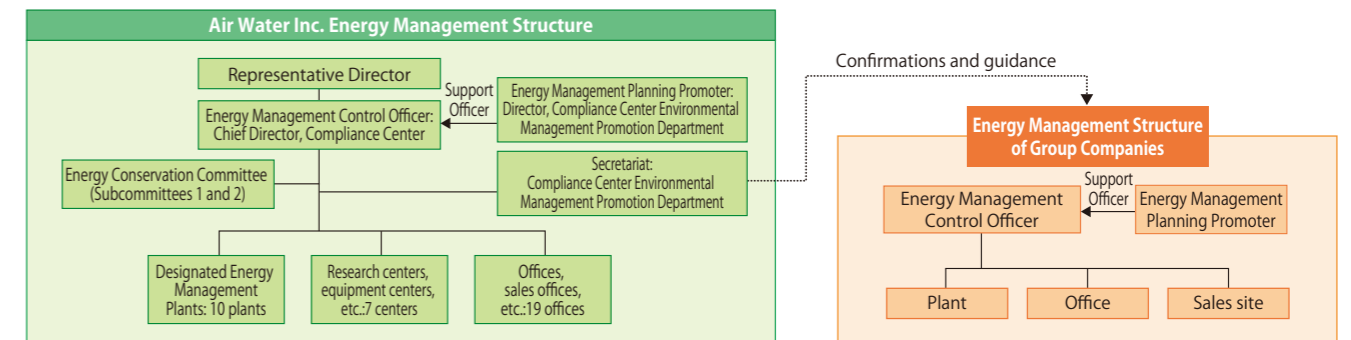
### Energy Management Structure

As a Specified Business Operator under the Energy Conservation Act, Air Water has established an environmental management structure with the Compliance Center Manager acting as the Energy Management Control Officer. "Energy Conservation Committee Subcommittee 1" is held regularly with the participation of the Energy Management Control Officer, the Energy Management Planning Promoter, and the officers responsible for energy management at the designated energy management plants, and "Energy Conservation Committee Subcommittee 2" is also held regularly with the participation of plants and business

establishments whose energy consumption is relatively small. The Committees study various aspects concerning conformance to the Energy Conservation Act, exchange information on energy conservation, and consider specific business practices such as those related to data and reports in accordance with the Energy Conservation Act.

The Environmental Management Promotion Department of the Compliance Center also confirms the energy management structures of each Air Water Group company through environmental audits and other measures, and provides guidance.

#### Energy Management Structure

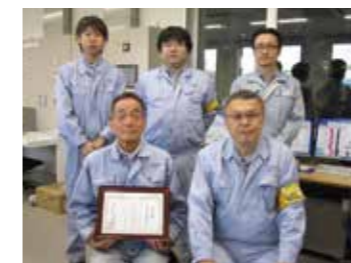


### Award for Excellent in Energy Conservation

Since fiscal 2013, the Air Water Group has awarded companies that have been designated as Specified Business Operators under the Energy Conservation Act and have exhibited excellent performance as companies excellent in energy conservation.

In fiscal 2015, Tomakomai Oxygen Co., Ltd. and Nihonkaisui Co., Ltd. Sanuki Plant received the awards.

Through giving the awards, further efforts are encouraged so as to promote and expand energy conservation as well as increase motivations of companies and offices.



Award for Excellent in Energy Conservation



### Information Liaison Conference of Energy Management Staff

In fiscal 2015, the Air Water Group held an information liaison conference of energy management staff for 22 companies that have been designated as Specified Business Operators under the Energy Conservation Act.

We had an awards ceremony for companies/offices excelling in energy conservation, presentation of case examples, a lecture by an outside lecturer "Knowledge and information to enhance the business ability and planning ability of energy management," and presentation of mid-and-long term plans of each company to exchange information on energy conservation of the Group.



Information liaison conference of energy management staff

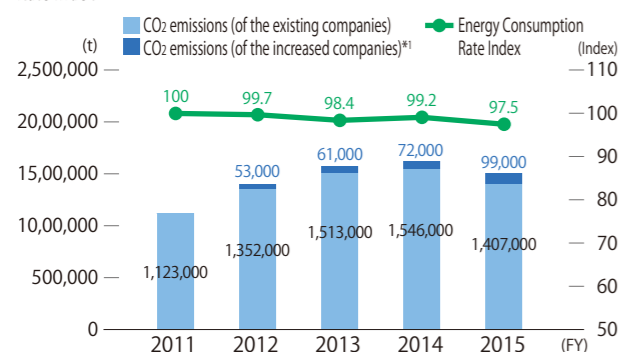




### Efforts by Plants and Offices

In the Air Water Group, presently 22 companies are designated as Specified Business Operators under the Energy Saving Act, which work on energy conservation and CO<sub>2</sub> reduction.

**Air Water Group**  
Changes in CO<sub>2</sub> Emissions regarding Energy Consumption and Energy Consumption Rate Index



\*1 The base year is 2011 and the scope is companies increased due to M&A and designation of Specified Business Operators.

Note: CO<sub>2</sub> emissions of the electricity purchased are calculated using the CO<sub>2</sub> emission coefficient of electricity utilities, and the figures are affected by the increase of emission coefficients due to suspension of nuclear power plants and other factors.

In the "assessment system for classifying businesses," which has been operated based on the Energy Saving Act since fiscal 2016, nine companies are in the S class (excellent businesses).\*

\* Assessment including the results in fiscal 2015.

Mid- to Long-term Goals of Addressing Global Warming (energy conservation)

Goal	Results	Evaluation	Causes of the Differences
Reduce energy consumption rate by an average rate of at least 1% per year over the mid- to long-term (over the past five fiscal years)	Annual average reduction of 0.8% over the past 5 fiscal years	○	<ul style="list-style-type: none"> <li>Deteriorated operating efficiency of manufacturing facilities due to substantial decrease of gas demand in the industrial gas business in the past</li> <li>Extensive use of fuel for trial operation of new facilities in the seawater business</li> </ul>

Fiscal Year Goals of Addressing Global Warming (energy conservation)

Goal	Results	Evaluation	Causes of the Differences
Reduce energy consumption rate compared with the previous fiscal year	Reduction of 1.6% compared with FY2014	✓	<ul style="list-style-type: none"> <li>Improvement of Energy Consumption Rate Index due to renewal of plants in the industrial gas business</li> <li>Improvement of Energy Consumption Rate Index due to fuel conversion associated with renewal of off-grid electric generation systems in the seawater business</li> </ul>

Evaluation: ✓ Goal achieved ○ Close to goal × Far from goal

### Transportation Field Effort

#### Efforts as a Freight Consigner

As a freight consigner, the Air Water Group promotes energy conservation and CO<sub>2</sub> reduction in collaboration with transportation companies.

Mid- to Long-term Goals of Addressing Global Warming (energy conservation)

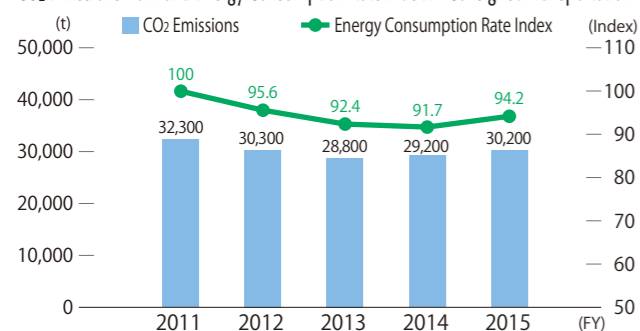
Goal	Results	Evaluation	Causes of the Differences
Reduce energy consumption rate by an average rate of at least 1% per year over the mid- to long-term (over the past five fiscal years)	Annual average reduction of 1.5% over the past 5 fiscal years	✓	<ul style="list-style-type: none"> <li>Implementation of efficient delivery by installation of compact liquid nitrogen/oxygen co-production plant in the industrial gas business</li> <li>Improvement of Energy Consumption Rate Index due to decrease of the number of transportation by full cargo in land and marine transportation in the seawater business</li> </ul>

Fiscal Year Goals of Addressing Global Warming (energy conservation)

Goal	Results	Evaluation	Causes of the Differences
Reduce energy consumption rate compared with the previous fiscal year	Increase of 2.6% compared with FY2014	×	Increase of customers for long-haul transportation in the industrial gas business

Evaluation: ✓ Goal achieved ○ Close to goal × Far from goal

CO<sub>2</sub> Emissions from and Energy Consumption Rate Index in Consigned Transportation



#### Initiatives Befitting an Innovative Transportation Business

Air Water Specialized Transportation Inc., which manages transportation mainly in the Hokkaido area, promotes energy conservation and CO<sub>2</sub> reduction as a freight carrier.

Mid- to Long-term Goals of Addressing Global Warming (energy conservation)

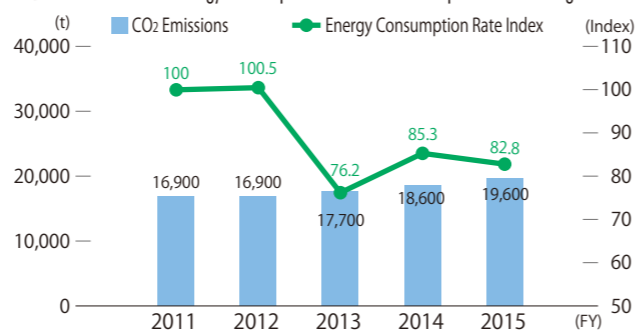
Goal	Results	Evaluation	Causes of the Differences
Reduce the energy consumption rate by an average rate of at least 1% per year over the mid- to long-term (over a period of the previous five fiscal years)	Annual average reduction of 4.6% over the past 5 fiscal years	✓	<ul style="list-style-type: none"> <li>Improvement of Energy Consumption Rate Index due to measures for rational use of energy</li> <li>Introduction of fuel-efficient vehicles</li> <li>Implementation of eco-driving</li> <li>Implementation of modal shift</li> </ul>

Fiscal Year Goals of Addressing Global Warming (energy conservation)

Goal	Results	Evaluation	Causes of the Differences
Reduce the energy consumption rate compared with the previous fiscal year	Reduction of 3.0% compared with FY2014	✓	<ul style="list-style-type: none"> <li>Improvement of Energy Consumption Rate Index due to measures for rational use of energy</li> <li>Introduction of fuel-efficient vehicles</li> <li>Implementation of eco-driving</li> <li>Implementation of modal shift</li> </ul>

Evaluation: ✓ Goal achieved ○ Close to goal × Far from goal

CO<sub>2</sub> Emissions from and Energy Consumption Rate Index for Transportation as a Freight Carrier



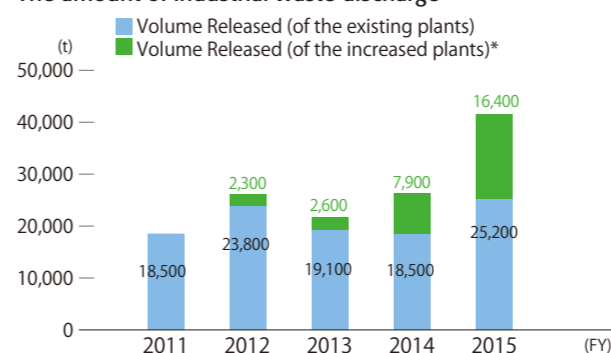
## Efficient Use of Resources and Reduction of Chemical Risk

The Air Water Group is working to reduce the amount of waste discharge through the practice of 3R (reduce, reuse and recycle) and to ensure compliance with the law. The Group also makes efforts to improve the management level through properly monitoring the quantities of chemical substances manufactured, imported and released as well as ensuring a correct comprehension of risks by employees who handle chemical substances.

### Discharge of Industrial Waste

The Air Water Group makes efforts to reduce waste through the practice of 3R (reduce, reuse and recycle), and properly monitors the amount of waste discharge.

The amount of industrial waste discharge

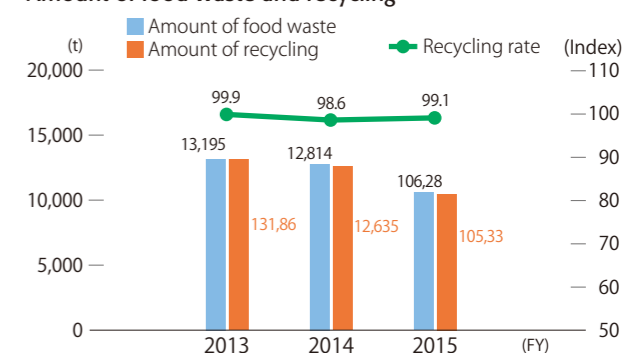


\* The base year is 2011 and the scope is plants increased due to M&A, etc.

### Food Recycle

The Air Water Group makes active efforts for reduction and recycle of food waste discharged from agriculture/food related plants, and has achieved over a 99% recycling rate.

Amount of food waste and recycling

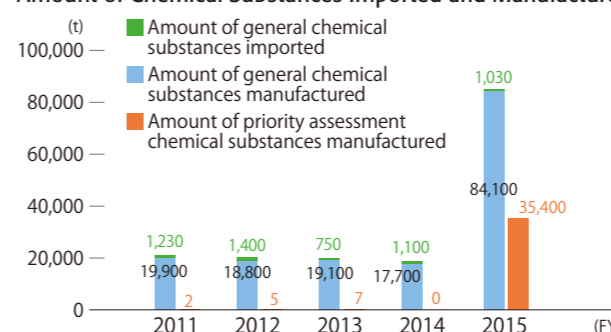


### Manufacturing and Import of Chemical Substances

The Air Water Group properly monitors the quantities of chemical substances manufactured and imported properly to control chemical risk.

The Group makes notifications of the quantities of chemical substances manufactured and imported in accordance with the "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." (Chemical Substances Control Law) mainly in the chemical business.

Amount of Chemical Substances Imported and Manufactured



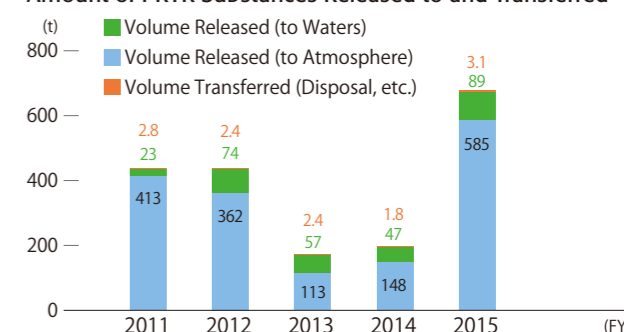
\* The amount has substantially increased since new group companies in the chemical business were added in the scope in fiscal 2015.

### Discharge and Transfer of Chemical Substances to Environment

The Air Water Group properly monitors the amounts of chemical substances handled, released to and transferred in the environment to provide information on the handling of chemical substances.

In accordance with the "Pollutant Release and Transfer Register (PRTR) Act" (PRTR system), the businesses that handle 1 ton or more of Class 1 designated chemical substances (PRTR substances) notify the national government of the amounts released and transferred.

Amount of PRTR Substances Released to and Transferred



\* The amount has substantially increased since new group companies in the chemical business were added in the scope in fiscal 2015.

#### Efforts for chemical risk assessment

Chemical risk assessment has been required by the amended Industrial Safety and Health Act since June 2016. The entire Group promotes risk assessment, and make efforts for reduction of

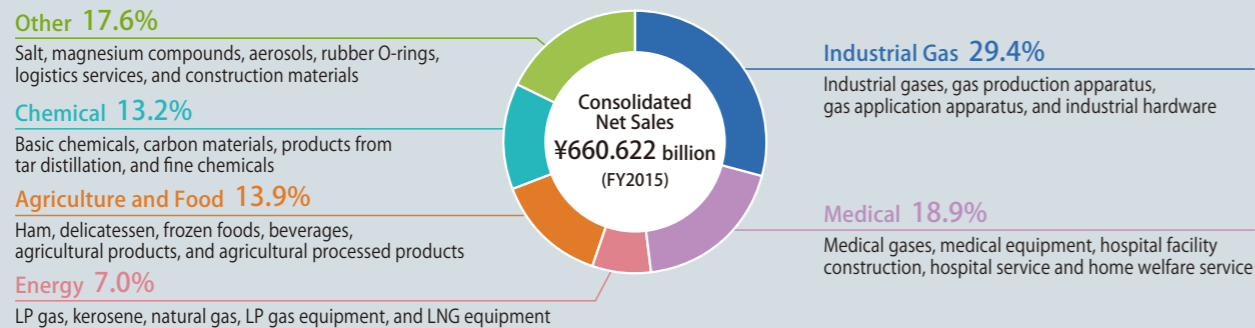
chemical risk as the substances subject to risk assessment include a number of PRTR substances, which might damage the environment (See P.22 for Relationship with Employees).



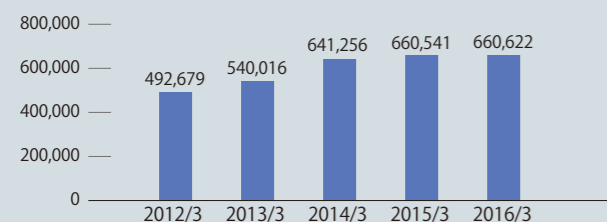
## Corporate Profile (as of March 31, 2016)

<b>Company name:</b>	Air Water Inc.	<b>Paid-in Capital:</b>	¥32,263 Million
<b>Head Office Address:</b>	12-8 Minami-Semba, 2-chome, Chuo-ku, Osaka, 542-0081, Japan	<b>Number of Employees:</b>	11,334 (Consolidated)
<b>Established:</b>	September 24, 1929	<b>Number of the Air Water Group companies:</b>	227 (including 85 consolidated subsidiaries)
<b>Representative:</b>	Masahiro Toyoda Representative Director, Chairman of the Board, Chief Executive Officer		

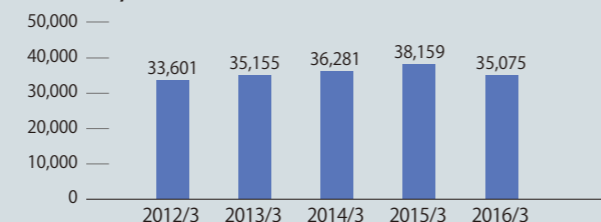
### Percentage of Sales by Segment (%) and Major Business Items



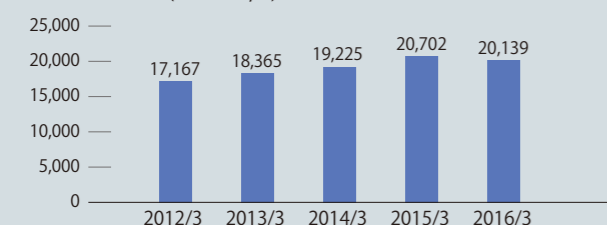
### Net Sales (millions of yen)



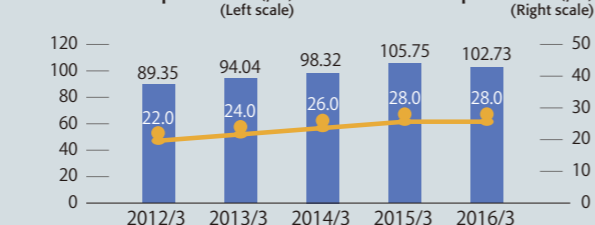
### Ordinary Income (millions of yen)



### Net Income (millions of yen)



### Net Income per Share (yen) and Dividends per Share (yen)



### Major consolidated subsidiaries of the Air Water Group (by business segment)

#### Industrial business

Air Water Carbonic Inc., Air Water Hydrogen Corp, Air Water Plant & Engineering Inc., Air Water Bellpearl Inc., Air Water Materials Inc., Air Water Yakka Co., Ltd., Kyodo Carbonic Inc., Shinko Air Tech Ltd., Shinko Air Water Gas Co., Ltd., Kobelco Air Water Cryoplant, Ltd., NCSS Air Water Inc., Celco Co., Ltd., Senboku Oxygen Co., Ltd., Daio, Inc., Daiho Sangyo Inc. Takenaka Koatsu Kogyo Co., Ltd., Nihon Helium Co., Ltd., Hokkaido Air Water Engineering K.K., Matsuyama Oxygen Inc.

#### Chemical business

Kawaka Sangyo Ltd., Kawasaki Kasei Chemicals Ltd., Sun Chemical Co., Ltd., Printec Corporation

#### Medical business

Ikiken Co., Ltd., Air Water Safety Service Inc., Air Water Medieichi Inc., Air Water Medical Inc., MC Service Co., Ltd., Saito Medical Industries Inc., Seiken Medical Co., Ltd., Denken-Highdental Co., Ltd., Nishimura Kikai Co., Ltd., Handa Co., Ltd., Miwa Electric Medibal Co., Ltd., Rad Safe Technical Service Company.

#### Energy business

Air Water Techno Supply Inc., Air Water Hello Support Inc.,

#### Agriculture/food product business

Kyusyuya Co., Ltd., Gold Pak Co., Ltd., Sagamiham Co., Ltd., Saver SS Inc. Takaya Shoten Co., Ltd., Tomiichi Co., Ltd. Nichinoki Co., Ltd., Nichinoki Seiko Co., Ltd., Hayashiya Co., Ltd.

#### Other business

Aquaintec Corporation, Air Water Ecoroca Inc., Air Water NV Inc., Air Water Kigyo Inc.\*, Air Water Food Transportation Inc., Air Water Softec Inc., Air Water SOL Inc., Air Water Specialized Transportation Inc., Air Water Mach Inc., Tateho Chemical Industries Co., Ltd., Tateho Ceramics Co., Ltd., Nishinoh Air Water Specialized Transportation Inc. Nihonkaisui Co., Ltd., Higashinoh Air Water Specialized Transportation Inc., Hokkaido Body Co., Ltd.

\* The current company name has been changed to Air Water Service Co., Ltd.

## Third-Party Opinion



### Masatoshi Ikari

Manager, Senior Consultant  
Environmental and Social Risk Section  
Consulting Department 1  
InterRisk Research Institute & Consulting, Inc.  
Part-time Teacher, Seikei University

### After reading Air Water "Environmental and Social Report 2016"

#### Commendable Points

- It may be difficult for external stakeholders to understand what the "All-weather Management System" and "Order Rodentia Style Of Business" mean only by reading the explanation. However, the story in this year's Feature Story 1 based on "businesses linking humans" would make most external stakeholders understand the management policies better. Further, under a circumstance where disasters such as Kumamoto Earthquake and a typhoon occurred frequently also in 2016, it is clearly reported how Air Water contributes to solutions for social issues through its businesses.
- In the environmental fields, three important issues have been identified, and the Environmental Basic Policy has been partially revised by reference to last year's third-party opinion, which suggests referring to new requirements in ISO14001: 2015. Continuous improvement based on this new Policy is expected in the future.
- Compared to fiscal 2014 and 2015, while the net sales increased slightly and the scope expanded due to M&A and other factors,

CO<sub>2</sub> emissions caused by energy consumption in plants and offices eventually decreased, which deserves recognition. If adding the reduction of CO<sub>2</sub> emissions by clients through the business activities introduced in Topics, more reduction has practically been accomplished.

#### For Coming Fiscal Years

- As management that values diversity is said to be promoted, future advancement of "efforts to promote participation by women" is expected. Since there are fewer applications from new female graduates, it is understandable that such improvement is difficult (not only in your company). Still, for example, as part of promotional measures, the goals and results of the action plans for five years from fiscal 2016 should be purposefully and strategically disclosed to external stakeholders.
- Three pages are devoted to industrial health and safety, where the trend of the past results of the frequency rate of accidents accompanied by lost worktime and the setting of the mid-term goal in fiscal 2018 are disclosed. Although the countermeasures must not be uniform to cover a wide range, and improvement is difficult since Air Water has diverse businesses, I expect that the results of the prevention of accidents accompanied by lost worktime will become apparent by fiscal 2018.
- For Feature Stories 1 and 2, external stakeholders make statement with their pictures. Even though there is space limitation, in order to develop more credible Environmental and Social Reports, the appearance of stakeholders in various regions is expected in the future, instead of one-way information provision from the Company.
- The amount of industrial waste discharge in fiscal 2015 increased due to M&A and other factors. Although disclosure including such negative information deserves recognition, continuous improvement in accordance with the new Environmental Basic Policy (efficient use of resources) is expected in the future.

## In Response to the Third-Party Opinion

### Kazuhiko Hatano

Corporate Director  
Corporate CSR Officer  
General Manager, Compliance Center  
Air Water Inc.

This is the fifth year for us to request a third-party opinion on our Environmental and Social Report from Mr. Ikari. First of all, I would like to express our gratitude for the comments and suggestions that have been made.

As he mentioned, the Air Water Group identified three important issues in the environmental field, and revised our Environmental Basic Policy. In accordance with this Policy, we would like to continue to improve our environmental management structure.

With respect to industrial health and safety, especially prevention of accidents accompanied by lost worktime, pointed out in "For Coming Fiscal Years," we will make efforts to eliminate industrial accidents through enhancing instructions by safety audits as well as improving safety awareness by the Central Safety and Health Committee, and revitalizing safety and health activities at work by workshops, etc. Concerning "efficient use of resources" as a new important issue in the environmental field, we will ensure to utilize limited earth resources efficiently by further promoting reduction of the amount of industrial waste discharge and improvement of the recycling rate.

While our Group is expanding, we will continue to take serious note of objective opinions from Mr. Ikari and other persons outside the Company, and try to enhance our environmental and social activities and information disclosure.





**Contact Information**

Environmental Management Promotion Department  
Compliance Center

**Air Water Inc.**

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This report is available on Air Water's website.  
The PDF files can be viewed with Adobe Acrobat Reader.  
URL: <http://www.awi.co.jp/english/csr/>

Printed in Japan



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This report uses FSC-certified paper made out of wood from properly managed forests.



Printed on paper made with wood from forest thinning. "Mori no Chonai Kai" (Forest Neighborhood Association)—Supporting sound forest management.

Since 2009, Air Water has been supporting the "Mori no Chonai Kai" (Forest Neighborhood Association) activities, which is sponsored by the "Office Chonai Kai," an environmental non-profit organization, through the paper used for the Environmental and Social Report. By donating 15 yen per 1 kg of paper, the Company is supporting forest thinning and contributing to nurture healthy forests in Iwate. Last year's Environmental and Social Report 2015 helped to facilitate the thinning of forest with an area of 0.15 ha.