

CoorsTek KK Group**Environmental, Health, and Safety Report 2023****Contents**

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Editor's Note

This is our 21st report since our first report, titled Environmental Report, was published in 2003. In this report, we present the business, social and human, and environmental activities of the CoorsTek KK Group (the Group), which includes CoorsTek KK (the Company) and our subsidiaries, as they reflect our commitment to environmental, health, and safety activities. Our purpose is to communicate the Group's activities in a way that our customers, shareholders, employees, people in local communities, and other stakeholders can easily grasp.

Scope of the Report

This report covers the following facilities and affiliated companies.

CoorsTek KK

■ Head Office	Osaki Wiz Tower, 11-1, Osaki 2-chome, Shinagawa-ku, Tokyo
■ Oguni Facility	378, Oaza Oguni-machi, Oguni-machi, Nishiokitama-gun, Yamagata Prefecture
■ Hadano Facility	30, Soya, Hadano City, Kanagawa Prefecture
■ Kariya Facility	1, Minami-Fuji, Ogakie-cho, Kariya City, Aichi Prefecture
■ Nagasaki Facility	296, Momozugo, Kawatana-cho, Higashisonogi-gun, Nagasaki Prefecture

Consolidated Subsidiaries

■ CoorsTek Tokuyama Corporation	2-1-32, Eguchi, Shunan City, Yamaguchi Prefecture
■ CoorsTek Sales KK	Osaki Wiz Tower, 11-1, Osaki 2-chome, Shinagawa-ku, Tokyo

Remarks:

- The above four facilities and one consolidated subsidiary are collectively referred to as "business sites."
- CoorsTek Nagasaki Corporation has changed its name to CoorsTek KK Nagasaki Facility on November 1, 2022.
- The Head Office and CoorsTek Sales KK are not included in the environmental reporting data.
- In this report, the group company of CoorsTek, Inc., the parent company, is collectively referred to as the CoorsTek Group.
- In this report, CoorsTek KK and the above consolidated subsidiaries are referred to as CoorsTek KK Group.
- For corporate data, please refer to our website.
<http://www.coorstek.co.jp/jpn/corporate/overview.html>

Reporting Period

This report presents the results of activities in FY 2022 (January 1, 2022 to December 31, 2022) and other content.

Publication

Previous issue: April 2022

Next issue: April 2024 (scheduled)

Reference Guidelines

Environmental Accounting Guidelines (FY year 2005 version), Ministry of the Environment of Japan

Corporate Philosophy

The CoorsTek Way Corporate Philosophy

The Coorstek Way

VISION STATEMENT

We make the world **measurably better**.

Better Today

- **We are inspired** by our legacy of innovation
- **We take pride** in what we do
- **We provide** outstanding value for our customers, teammates, families, communities, and the world
- **We deliver** leading-edge solutions to improve the lives of people in the communities we serve

Better Together

- **We value** the inherent worth and dignity of each individual
- **We share** responsibility, risk, opportunity, and reward
- **We collaborate** to solve our customers' most complex challenges
- **We act** with consistency, honesty, and respect

Better Tomorrow

- **We push** the limits of what's possible
- **We evolve** to meet the challenges of the future
- **We think** globally and act locally
- **We commit** to near-term results with a long-term view

CoorsTek's Corporate Policy

1. Prioritizing the Customer

We accord the highest priority to customers' satisfaction by providing value-rich products and services based on new perspectives and dynamic ideas.

2. Enhancing Corporate Value

Through constant change in management practices and technological innovation, we strive to garner the trust and meet the expectations of all who are stakeholders in the CoorsTek Group.

3. Contributing to Society

We place the highest consideration on human safety and environmental conservation, and as a good corporate citizen, we aim to achieve a symbiotic relationship with the global community and local communities in which we have a presence by contributing to their developments.

4. Conducting Fair Business

We are fully aware of our social responsibilities as a corporate entity, and we obey the rules and established norms of Japan and other countries as we conduct business fairly and with integrity.

5. Respecting the Individual

We respect each employee's individuality and creativity, and we foster a fair and generous environment in which he or she can grow and evolve as an individual.

Corporate Message

Message from the Company

We make the world measurably better

As a technical ceramics manufacturer with a 100-year history, the CoorsTek Group contributes to a world in which we can feel measurable achievements. Through development based on the direct needs of a wide range of customers and markets in many business areas, we will continue to provide even better products.

At the same time, we practice our Business Policy, which is to "place the highest consideration on human safety and environmental conservation." We believe that environmental conservation, health, and safety are key elements to continuing our business, therefore we contribute to the development of society through a variety of activities.

In 2021, we launched the Sustainability Steering Committee to accelerate our commitment to sustainability. We also aim to achieve higher goals in the markets and products we serve, and in our process of continuous innovation centered on improving energy efficiency and reducing waste. In terms of environment, CoorsTek KK has improved our energy intensity by an average of 3.1% per year over the past five years in 2022. In addition, from February 2022, we have been using renewable energy (hydroelectric power) for part of our purchased electricity as a measure against global warming. As a result, in 2022, 21% of the purchased electricity came from renewable energy sources, and the resulting CO₂ emissions was equivalent to 17,645t-CO₂. Going forward, we will continue to promote efforts to further reduce CO₂ emissions, make effective use of resources, and reduce chemical substances through more efficient energy use and the use of renewable energy.

In terms of health and safety, In 2022, workplaces for pregnant women were added to the risk assessment system. Although we have always taken health and safety into consideration when working with pregnant women, by setting assessment criteria, we aim to create a safer and more secure work environment.

In 2022, we also conducted human performance education for managers and supervisors with the aim of improving human performance*1. In 2023, we plan to conduct education for general employees as well. We will also work to foster a safety culture by strengthening human resource development while conducting risk reduction activities.

From now on, we will continue to grow our business and improve our corporate value and promote efforts toward sustainability. We will also promote various activities to ensure stakeholder satisfaction. We ask for your continued guidance and encouragement.

CoorsTek KK

*1 Improvement of human performance: To understand the human behavior and characteristics behind human error, and to improve individual and organizational capabilities and performance in order to reduce errors.

Environmental Report

Environment report

Environmental, Health, and Safety Policy

Conducting operations safely and in an environmentally responsible manner requires a diligent attitude and proactive steps. At CoorsTek, we believe ACTION is the key to achieving ZERO injuries or environmental incidents.

Anticipate potential hazards and take action to prevent them from doing harm

Commit to protecting yourself, employees, and the environment

Think about the contributing factors of injuries, accidents, and illnesses and learn from them

Initiate continual process and program improvements

Own it! It is up to us to prevent injuries, illnesses, and pollution

Network with others to share best practices and elevate our performance beyond compliance

Environmental activities

The CoorsTek KK Group regards environmental conservation as a key management issue. We are engaged in environmental conservation activities on a continual and voluntary basis, guided by the Environmental Policy we established in 1989.

CoorsTek KK Group Environmental Policy

The CoorsTek KK Group works to bring together materials, technologies, and people to create new values. In carrying out our activities, we promote environmental conservation in the belief that the Earth's resources are invaluable. Accordingly, we promote the following management concepts:

- (1) Position environmental conservation as a critical issue at the heart of our business.
- (2) Adhere to environmental laws, environmental guidelines agreed to by CoorsTek KK Group, and other voluntary environmental protection standards.
- (3) Reduce the environmental impact of our business activities and prevent pollution.
- (4) Set voluntarily action plans such as energy conservation to help prevent global warming, including policies such as zero emissions, through the effective use of resources and reducing the use of chemical substances.
- (5) Promote green procurement, including prioritizing the selection of raw materials that have minimal environmental impact.
- (6) Contribute to society by developing and providing superior environmental technology and products, cooperate with communities, and undertake environmental protection activities in general.

Environmental Management Structure

Environmental management structure

We have an integrated environmental management structure in which the Group Environmental Committee is the top decision-making body for matters relating to environmental management.

All business sites operate under environmental management systems that comply with ISO14001 standards.

◆ Management Organizational Structure



◆ ISO 14001 Certification Status (as of March 31, 2023)

Business Site	Initial Certification Date	Certification Body
Oguni Facility	Feb. 1998	Intertek Certification Japan Ltd.
Hadano Facility	Mar. 1998	Intertek Certification Japan Ltd.
Kariya Facility	Apr. 2000 *1	Intertek Certification Japan Ltd.
Nagasaki Facility	Dec. 2000 *2	Intertek Certification Japan Ltd.
CoorsTek Tokuyama Corp.	Mar. 1998	Japan Quality Assurance Organization

*1 The Kariya Facility returned the certification in April 2009. Subsequently, it was recertified in November 2017.

*2 The Nagasaki Facility returned the certification in December 2009. Subsequently, it was recertified in March 2016.

Environmental, health, and safety audits

Internal audits

The Chief Environmental Management Officer and EHS personnel conduct compliance audits and activity assessments at each business site. The CoorsTek Group uses its standards to verify compliance with environmental laws and regulations and assess the status of the Company's environmental activities. EHS personnel follow up on assessment results and work to improve environmental efforts.



Oguni Facility



Hadano Facility



Kariya Facility



CoorsTek Tokuyama



Nagasaki Facility

Environmental education

In order to better understand and enhance our environmental conservation skills, all Group employees undergo environmental education on a regular basis. The content of the education varies according to positions and responsibilities. To ensure compliance and enhance the skills of individual employees, the Group supports and encourages employees to acquire qualifications and attend lectures.

Contractors working at the Group's sites are informed of environmental and safety requirements.

In 2020, we implemented a lot of education to prevent infection and also utilized remote systems due to the influence of COVID-19.



Environmental education for new employees (Hadano Facility)



Environmental education for new employees (Nagasaki Facility)

Number of Qualified EHS Employees

Major qualifications	Number
Pollution control managers	66
Energy managers	20
Environment measurement engineers	5
Specially controlled industrial waste managers	15
Health officers	27
Working environment measurement experts	18

Objectives and Results of Environmental Activities

Green manufacturing to reduce environmental impact

Overview of voluntary environmental action plans

The CoorsTek KK Group has formulated a voluntary environmental action plan and it conducts activities to reduce environmental impacts of business activities.

◆FY2022 Voluntary Environmental Action Plan and Performance

Priority Initiatives	FY2022 Voluntary Environmental Action Plan	Results	Evaluation*1
Global warming mitigation	<ul style="list-style-type: none"> Average improvement of 1% or more per year in ratio to direct costs (crude oil equivalent/DC) in the past 5 years Consideration of CO₂ reduction measures by increasing the ratio of renewable energy 	<ul style="list-style-type: none"> Average improvement of 3.1% per year Increased the ratio of renewable energy from hydroelectric power generation from 0% to 21% 	◎
Effective use of resources	<ul style="list-style-type: none"> Reduction final disposal rate Reduction of ratio of total waste discharged in relation to input (value vs. waste / input) over FY2021 level 	<ul style="list-style-type: none"> ±0% of the previous year's level 	◎
Pollution Prevention	<ul style="list-style-type: none"> Prevention of environmental problems: continue performance of zero incidences of Level 3 problems (Level 3: exceed legal regulations) 	<ul style="list-style-type: none"> Zero occurrences of Level 3 environmental problems 	○

*1 ◎ Objective exceeded ○ Objective achieved △ Objective not achieved

*2 PRTR (Pollutant Release and Transfer Register) is a system for ascertaining, aggregating, and publishing data on the amounts of harmful chemical substances released into the environment or transferred offsite and the sources of such substances

◆FY2023 Voluntary Environmental Action Plan

Priority Initiatives	FY2023 Voluntary Environmental Action Plan
Global warming mitigation	Average improvement of 1% or more per year in ratio to direct costs (crude oil equivalent/DC) in the past 5 years
Effective use of resources	<ul style="list-style-type: none"> Reduction final disposal rate Reduction of ratio of total waste discharged in relation to input (value vs. waste / input) over FY2022 level

Environmental accounting

CoorsTek KK Group assesses environmental costs and applies the results to business activities.

◆ Environmental Costs

Unit: Millions of yen

Classification	Content	Expenditure* ¹	Costs* ²
I Business area costs		162.3	669.0
I - i Pollution prevention costs	Prevention of pollution to atmosphere, water, soil, etc.	42.0	299.8
I - ii Global environmental conservation costs	Mitigation of global warming, conservation of ozone layer, etc.	114.7	139.9
I - iii Resource circulation costs	Effective utilization of resources, recycling of waste, etc.	5.6	229.3
II Upstream/downstream costs	Green procurement, product recovery and recycling, etc.	0	0
III Administration costs	Monitoring of environmental impacts, planting of greenery, etc.	7.9	38.2
IV R&D costs	Development of environmentally conscious products etc.	4.3	65.2
V Social activity costs	Disclosure of information etc.	0	0.7
VI Environmental remediation costs	Natural restoration etc.	0	74.2
Total environmental cost (millions of yen)		174.5	847.3

Period: January 2022 to December 2022. Subjects: 5 business sites

*1 Expenditures: of expenditures subject to depreciation, amounts for environmental conservation are reported.

*2 Costs: total amounts of expenditures for environmental conservation and depreciation of facilities are reported (including labor costs).

◆ Environmental conservation effects

Energy consumption and amount of money have increased due to increased production. The decrease in the volume and amount of water used is due to the transfer of some businesses.

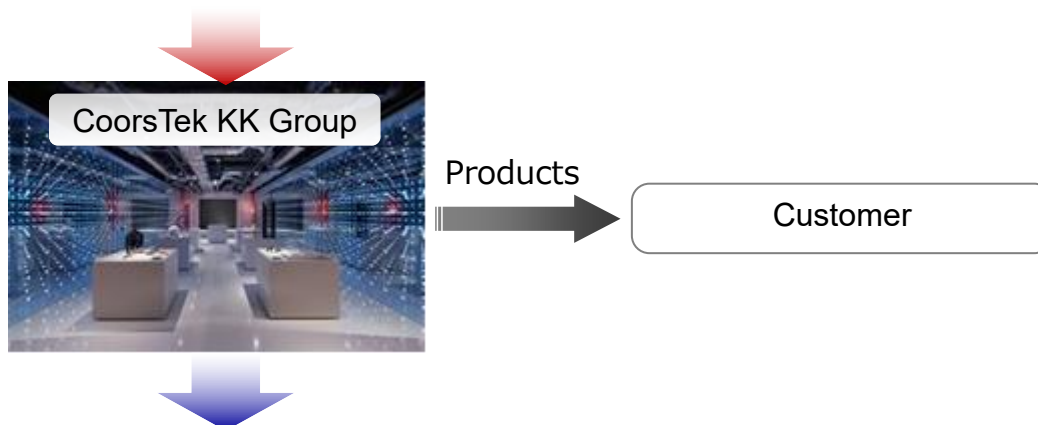
Actual Effects	Environmental Impact Compared to FY2021	Monetary Value of Effects
Energy consumption	increase of 57,000 GJ	increase of 962 million yen
Water consumption	decrease of 101,000 m ³	decrease of 1.1 million yen
Amount of waste	increase of 705 t	increase of 19.9 million yen

Environmental Impact

Reducing environmental impact by continually analyzing the impact of business activities on the environment

INPUT

Energy Input			Principal Raw Materials* ¹		
Purchased electricity	1,628,902	GJ	Silica	4,780	t
LPG	72,162	GJ	Alumina	398	t
Fuel oil A	35,740	GJ	Carbon	478	t
Kerosene	7,120	GJ	Silicon carbide	422	t
Utility gas	7,581	GJ	Coal tar and tar pitch	343	t
Gas oil	246	GJ	Silicon	205	t
Gasoline	317	GJ	Zirconia	8	t
Steam	73	GJ			
—	—	-	Principal Source Gases* ¹		
Total energy input	1,752,142	GJ	Silicon tetrachloride	1,869	t
Water Input			Amounts of PRTR Substances Handled		
Clean water, industrial water	207	10,000m ³	Hydrogen fluoride and its water-soluble salts	306	t
Groundwater	38	10,000m ³	Others	19	t



OUTPUT

Released into the Atmosphere			Discharge of Waste		
Nitrogen oxides	2	t	Total amount of waste discharged	8,743	t
Sulfur oxides	2	t	Final amount of discharge	2,872	t
Amount of PRTR substances released (atmosphere)	2	t	Amount of PRTR substances transferred	3	t
Global Warming Gases			Discharged into Water		
CO ₂ emissions (direct emissions)	7.8	kt-CO ₂	BOD* ² + COD* ³	13	t
CO ₂ emissions (indirect emissions)	59.5	kt-CO ₂	SS* ⁴	35	t
CO ₂ emissions from transport	1	kt-CO ₂	Drainage	445	10,000m ³

Period: January 2022 to December 2022. Subjects: 5 business sites

*1 Principal raw materials and source gases listed are those of which 100 tons or more are consumed per year.

*2 BOD: Biochemical oxygen demand

*3 COD: Chemical oxygen demand

*4 SS: Suspended solids

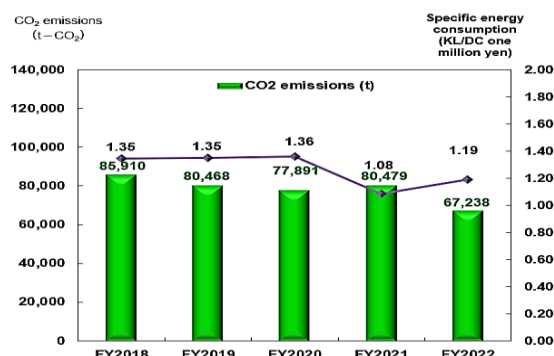
Mitigation of Global Warming

Reducing CO₂ emissions to counter global warming

Reduction of CO₂ emissions

The CoorsTek KK Group works to reduce CO₂ emissions through productivity improvements and energy conservation measures. CO₂ emissions in FY2022 decreased 16.5% from the previous year due to the effect of partially switching to renewable energy sources, despite an increase in production volume. On the other hand, the ratio to direct costs (crude oil equivalent/DC) in the past 5 years improved by 3.1% as a result of implementing energy conservation activities.

◆ CO₂ Emissions and Specific Energy Consumption



Measures to reduce CO₂ emissions

◆ CO₂ Emissions Reduction Measures and Amount of Reduction

Measure	Facility	Details of Improvement	Amount of Reduction
Case 1 Reduction of power consumption	Oguni Facility	Annual power consumption was reduced by 1,308,166 kWh by replacing lamps and air conditioners with those that had greater energy savings and replacing furnace insulations and improving the operation control.	622.7 t - CO ₂
Case 2 Reduction of power consumption	Hadano Facility	Annual power consumption was reduced by 231,940 kWh by replacing lamps, chillers, and water pumps with those that had greater energy savings and improving the operation control.	103.7 t - CO ₂
Case 3 Reduction of power consumption	Kariya Facility	Annual power consumption was reduced by 129,251 kWh by replacing lamps, compressors, chillers, and air conditioners with those that had greater energy savings and improving the operation control.	52.5 t - CO ₂
Case 4 Reduction of power consumption	Nagasaki Facility	Annual power consumption was reduced by 184,746 kWh by replacing lamps, chillers, air conditioners and compressors with those that had greater energy savings and improving the operation control.	83.7 t - CO ₂
Case 5 Reduction of power consumption	CoorsTek Tokuyama Corp.	Annual power consumption was reduced by 304,416 kWh by replacing lamps, air conditioners, compressors and water pumps with those that had greater energy savings and improving the operation control.	111.1 t - CO ₂



Chiller (after)
Case 2
(Hadano Facility)



LED lamp(after)
Case 3
(Kariya Facility)



Compressor(after)
Case 4
(Nagasaki Facility)



Water pump (after)
Case 5
(CoorsTek Tokuyama)

Waste Management

Zero emissions*1 for a recycling-based society based on the 3R concept

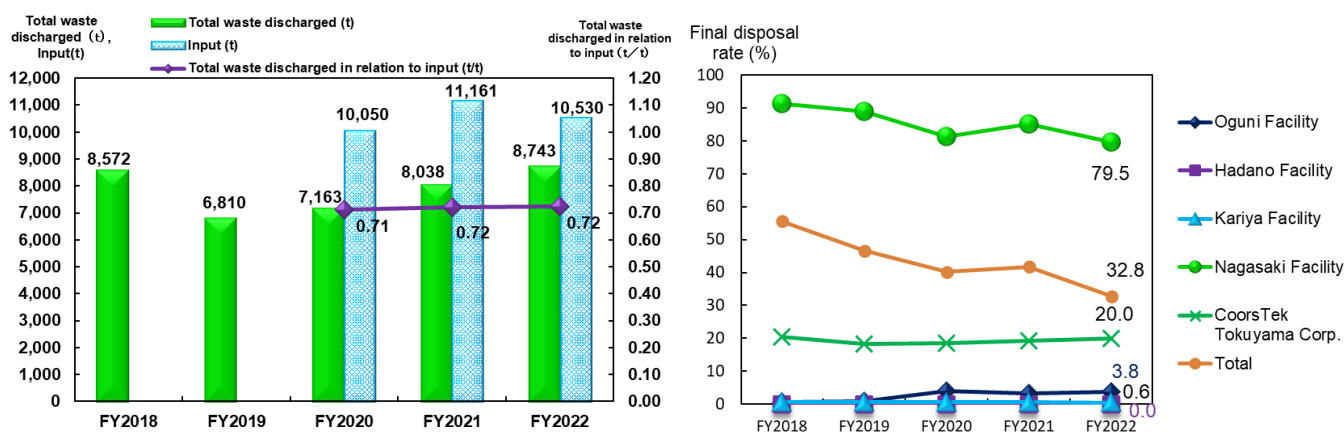
Initiatives to achieve zero emissions

Each business site has a recycling center that manages waste and implements zero emission activities to help realize a recycling-based society. Activities include minimizing defects and material loss by improving manufacturing yield and working with recycling partners for sludge and scrap waste in accordance with the 3R principles (reduce, reuse, recycle).

The total waste discharged in relation to input in FY2022 was ±0% of the previous year's level. On the other hand, Hadano Facility, and Kariya Facility continue the zero emissions.

*1 Zero emissions of waste: final disposal rate (final disposal amount / total waste discharged x 100) of ≤ 1

◆ Total waste discharged in relation to direct cost ◆ Final disposal rate of each facility



Management of Chemical Substances

“One drop control”*1 policy for managing chemical substances

Chemical substance management measures

The CoorsTek KK Group promotes green procurement and responds to the EU’s RoHS*2 Directive and REACH*3. We manage chemical substances subject to the PRTR Law and substances subject to the Poisonous and Deleterious Substances Control Law, taking into consideration human health and safety, prevention of pollution, and reduction of environmental impact. As we strengthen the implementation of the “one drop control,” we ensure meticulous management of data on usage, release, and transfer.

*1 “One drop control” is the Group’s practice of meticulous substance management. It involves daily cleaning and inspection so that no leakage—not even one drop of oil, chemical, or other substance—is overlooked. Structures are designed and maintained to ensure easy detection of any leakage. For example, trays and overflow spill basins are kept dry.

*2 RoHS (Restriction of Hazardous Substances) Directive: European Union directive to restrict the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers and phthalate (DEHP, BBP, DBP and DIBP) in electrotechnical products.

*3 REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Regulation: European Union regulation mandating registration, evaluation, authorization, and restriction of the use of chemical substances

Pollutant release and transfer register (PRTR) substances

The main PRTR substance that the CoorsTek KK Group handles is hydrofluoric acid, which is used for cleaning. In FY 2022, the handling volume of hydrofluoric acid increased compared to the previous year due to an upper production volume of raw materials.

◆ PRTR Results for FY 2022

Unit: ton

Substance number specified by the PRTR Law	Substance name	Amount handled	Amount released	Amount released				Amount transferred	To sewage	As waste
				To air	To water	To soil	To on-site landfills			
71	Ferric chloride	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
302	Naphthalene	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
349	Phenol	2.9	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0
374	Hydrogen fluoride and its water-soluble salts	306.0	0.1	0.1	0.0	0.0	0.0	2.9	0.0	0.0
453	Molybdenum and its compounds	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
258	Hexamethylenetetramine	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	326.6	1.7	1.7	0.0	0.0	0.0	2.9	0.0	0.0

Storage of polychlorinated biphenyls (PCBs)

The Group strictly manages equipment and machinery in storage and in use which contain PCBs until disposal by a processing company within the period specified by governmental order, so as to not cause environmental pollution.

◆ Equipment Containing PCBs in Storage or in Use (as of December 31, 2022)

Type of Equipment Containing PCBs (including low-concentration PCBs)	Total
Transformers	13 Units
Capacitors	0 Unit
Other equipment	7 Units

Measures to prevent air pollution and offensive odors

The CoorsTek KK Group prevents air pollution and the release of offensive odors by installing exhaust gas treatment equipment, fuel conversion, and other measures. Each business site has established voluntary exhaust gas standards and works to reduce environmental impact.

Water pollution prevention

The Group reduces the burden on wastewater treatment facilities through appropriate use of raw materials, abrasives, and chemical substances used in production processes at each business site. The Group has also established voluntary discharged water standards at each of the sites and is strengthening the monitoring of water quality.

In addition, each business site conducts emergency response training to enable a rapid response in the event of an emergency.



Emergency response training
(Hadano Facility)



Emergency response training
(Kariya Facility)



Emergency response training
(CoorsTek Tokuyama)

Green Procurement

In order to create environmentally conscious products, we promote the procurement of products, parts, materials, and raw materials with low environmental impact (green procurement).

Green procurement

Under our Green Procurement Guidelines, we practice green procurement to make eco-friendly products. We prioritize purchasing raw materials, parts, and supplies that reflect consideration for health, safety and the environment. Our efforts include eliminating hazardous substances and converting to substances with a minimal environmental impact, and incorporating RoHS and REACH directives and regulations.

CoorsTek KK Group Basic Purchasing Policy

- **Optimized Global Procurement**

Based on fair and impartial market principles, we conduct business with suppliers who provide the best quality, price and delivery terms, regardless of location.

- **Building Trust**

We create mutual benefits based on relationships of trust. We do not disclose to external parties confidential matters that come to our knowledge in the course of business.

- **Compliance**

We regard compliance with the law as the basis of every transaction.

- **Green Purchasing**

Our procurement activities give priority to environmentally-conscious products and services.

- **Conflict Minerals Policy**

We do not purchase conflict minerals or materials or products that use metals derived from conflict minerals which come from the Democratic Republic of Congo or its neighboring countries, where such minerals may serve as funding sources for militia groups that commit human rights abuses.

We kindly request that our suppliers also be transparent in their procurement of materials and parts.

History of Our Commitment to the Environment

Ever since our foundation, we have prioritized harmony with society and the environment in the conduct of business. We intend to continually strengthen the basis of environmental management with the aim of ensuring sustainable management*.

※Sustainable management is defined as contributing to the realization of a sustainable society by practicing corporate responsibility in economics, society, and the environment and by respecting people.

History of CoorsTek KK Group	Main environmental conservation activities and commendations	Main improvements related to environmental conservation
1918 Toyo Taika Renga Co., Ltd. (currently Kariya Facility) is established.		
1928 Denki Kinyu Co., Ltd. (currently Oguni Facility) is established.		
1956 Kawatana Plant (currently Nagasaki Facility) is established.	1951 Oguni Facility receives the Director-General Award for Excellent Factories for Energy Control (Heat Category).	1954 Oguni Facility's Akashiba Power Plant (hydroelectric) in Oguni, Yamagata prefecture, is completed.
1958 Nihon Denko Co., Ltd. is renamed Toshiba Denko Co., Ltd.		
1959 Tokai Rozai Co., Ltd., is renamed Toshiba Internal Insulation Co., Ltd.		
1961 Hadano Facility is established.		
1968 Toshiba Ceramics Co., Ltd. (currently CoorsTek KK) is established as a result of the merger between Denko Co., Ltd. and Toshiba Rozai Co., Ltd.		
1971 A research center (currently the Core Technology Center) is established.	1974 Oguni Facility receives the Director-General Award for Excellent Factories for Energy Control (Heat Category). 1978 Oguni Facility receives the Award of the Minister of International Trade and Industry for Excellent Factories for Energy Control (Heat Category).	
1982 Tokuyama Ceramics Co., Ltd. (currently CoorsTek Tokuyama Corp.) is established.		
1984 Tokai Ceramics Co., Ltd. is established.	1984 Kariya Facility receives the President's Prize from the Japan Energy Conservation Center as an example of excellent energy savings.	1985 Oguni Facility introduces waste heat-based snow removal equipment, which does not involve water spraying.
1991 Niigata Toshiba Ceramics Co., Ltd. Is established for volume production of large-diameter silicon wafers.	1991 Use of chlorine-based organic solvents is abolished throughout the Group.	1990 Oguni Facility's second Akashiba Power Plant (hydroelectric) is completed.
	1997 Oguni Facility starts manufacturing lead-free carbon brushes.	
	1998 Oguni Facility receives an award from the Director-General of the Tohoku Bureau of Economy, Trade and Industry for Excellent Factory Greening.	1998 An emergency automatic shut-off gate is introduced at the final discharge outlet of Oguni Facility.
	1999 Kariya Facility receives an award in the Aichi Prefecture Factory Greening Contest.	1999 Sound barrier walls are installed at site boundaries of Hadano Facility.
	1999 Nagasaki Toshiba Ceramics Co., Ltd. (currently Nagasaki Facility) gains Eco-Mark certification for its foamed (porous) ceramics.	
	2000 Green Procurement Guidelines are established and suppliers are evaluated for green procurement.	2000 Removal of incinerators from all production sites is completed.
		2001 Heat storage exhaust gas treatment equipment is installed at Kariya Facility to control offensive odors and VOCs.
		2004 Measuring equipment for total phosphorus and total nitrogen is installed at Kariya Facility.
		2004 Introduction of central monitoring systems at final discharge outlets is completed at Oguni, Hadano and Kariya Facilities.
		2004 Currently Nagasaki Facility changes furnace fuel from heavy oil to kerosene in order to reduce SOx.

History of CoorsTek KK Group	Main environmental conservation activities and commendations	Main improvements related to environmental conservation
<p>2006 SIC Investment, a special purpose corporation for the tender offer of Toshiba Ceramics' shares, is established. Toshiba Ceramics becomes a subsidiary of SIC investment following completion of the tender offer.</p> <p>2007 Toshiba Ceramics Co., Ltd. becomes a wholly owned subsidiary of SIC Investment following completion of the share exchange. SIC Investment is renamed Covalent Materials Corp. Toshiba Ceramics merges with Covalent Materials Corp. and the new Company, Covalent Materials Corp., is inaugurated.</p> <p>2010 Akashiba Power Plant is transferred to F-Power Co., Ltd.</p> <p>2012 Silicon wafer business is transferred to Sino-American Silicon Products.</p> <p>2013 Shares of Tokai Ceramics Co., Ltd. are transferred to Calderys Japan Co., Ltd. Shares of Covalent Sales Corp. are transferred to Hibino Corp.</p> <p>2014 CoorsTek, Inc. acquires the shares of Covalent Materials Corp.</p> <p>2015 The Company is renamed CoorsTek KK.</p> <p>2018 Kariya Facility 100th Anniversary</p>	<p>2005 Oguni Facility receives the Minister of Economy, Trade and Industry Award for Excellent Factories for Energy Control (Heat Category).</p> <p>2006 Kariya Facility holds an explanatory meeting for local residents about soil and groundwater contamination.</p> <p>2006 Onsite soil and groundwater measures are completed at Kariya Facility.</p> <p>2007 Hadano Facility achieves zero emissions of waste.</p> <p>2007 Cleanup of contaminated soil at Kariya Facility starts.</p> <p>2008 Hadano Facility is awarded the Shonan Region Prefectural Administration Center Director's Award for its efforts in waste reduction, reuse, and recycling activities.</p> <p>2009 Cleanup of PCB-contaminated soil at Kariya Facility is completed.</p> <p>2012 Electronic manifest system for industrial waste management begins at Hadano Facility.</p> <p>2013 Oguni Facility enters the Yamagata Eco Smile Contest, resulting in one 2nd place winner and three special prize winners.</p> <p>2013 Removal of all PCB equipment by a disposal company is completed by Covalent Materials Tokuyama Corp. (currently CoorsTek Tokuyama Corp.).</p> <p>2014 Removal of all PCB equipment by a disposal company is completed by Covalent Materials Nagasaki Corp. (currently Nagasaki Facility.)</p> <p>2014 Zero emissions status is achieved for the first time at Oguni Facility in FY 2013.</p> <p>2015 Electronic manifest system for industrial waste management begins at Oguni Facility.</p> <p>2015 195 units of PCB equipment and 13.8 tons of pollutant by a disposal company are removed at Oguni, Hadano and Kariya Facilities.</p> <p>2015 Kariya Facility receives recognition from the city of Kariya as an eco-friendly work site (Kariya eco-friendly workplace) for its efforts in consideration of the environment during the course of business.</p> <p>2019 Electronic manifest system for industrial waste management begins at Kariya Facility and CoorsTek Nagasaki (currently Nagasaki Facility).</p> <p>2020 Completed delivery of all PCB equipment to processing contractors (Hadano Facility)</p>	<p>2005 Kariya Facility installs catalyst combustion type odor control equipment in furnaces at advanced ceramics factories 1, 2 and 3.</p> <p>2005 CoorsTek Nagasaki (currently Nagasaki Facility) changes furnace fuel from kerosene to LPG in order to reduce CO₂ emissions.</p> <p>2006 Hadano Facility changes boiler fuel from heavy oil to LPG in order to reduce CO₂ emissions.</p> <p>2007 Kariya Facility installs catalyst combustion type odor control equipment in the furnace.</p> <p>2008 Kariya Facility introduces an extra high voltage substation, eliminating the use of heavy oil.</p> <p>2008 Tunnel kiln fuel is converted from kerosene to LPG to reduce CO₂ emissions at Covalent Materials Nagasaki Corp. (currently Nagasaki Facility).</p> <p>2008 Kariya Facility's status as a specified air pollutant discharging plant is removed due to a shift in business structure and energy conversion.</p> <p>2015 Three wastewater treatment facilities are consolidated into one at Oguni facility.</p> <p>2017 Kariya Facility installs catalyst combustion type odor control equipment in its furnace.</p>

History of CoorsTek KK Group	Main environmental conservation activities and commendations	Main improvements related to environmental conservation
<p>2022 The high-purity quartz glass crucible business (including Quartz powder) is transferred to Momentive Technologies .</p> <p>2022 CoorsTek Nagasaki Corporation has changed its name to CoorsTek KK Nagasaki Facility</p>	<p>2021 Completed delivery of all PCB equipment to processing contractors (Kariya Facility)</p>	<p>2021 Hydrofluoric acid wastewater treatment facility, Renewal of settling tank and introduction of automatic slaked lime injection system . (Hadano Facility)</p>

Health and Safety Report

Safety and Health Report

Occupational Safety and Health Management Structure

Occupational safety and health management structure

The CoorsTek KK Group has an integrated management and operating structure with the Group Safety and Health Committee as the top decision-making body for matters related to safety and health management. We perform risk reduction activities that conform to the Ministry of Health, Labour and Welfare’s Guidelines on Occupational Safety and Health Management Systems.

◆ Occupational Safety and Health Management Structure

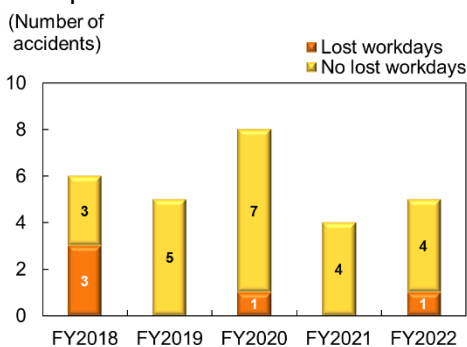


Occupational Accidents

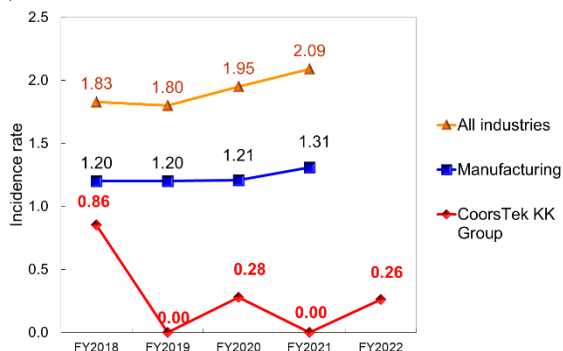
Occupational accidents

In FY 2021, there were five occupational accidents in the CoorsTek KK Group. There was one lost work accident. This is the average number of occupational accidents in the last five years. All injured workers had less than 5 years of experience. Human error was cited as one of the factors. In the second half of FY2022, we conducted human performance education for managers and supervisors, and in FY2023, we plan to conduct human performance education for general employees. We will continue to provide safety training for workers and strive to eliminate all accidents through initiatives such as using protective guards on machines, improving risk levels of safety and maintenance devices, Foresight 4 Safety (“kiken yochi,” or hazard prediction) - the point-and-call risk reduction system, and policies for risk reduction. In 2022, two facilities, Kariya Facility and CoorsTek Tokuyama, achieved zero occupational accidents and achieved no accidents for ten consecutive years.

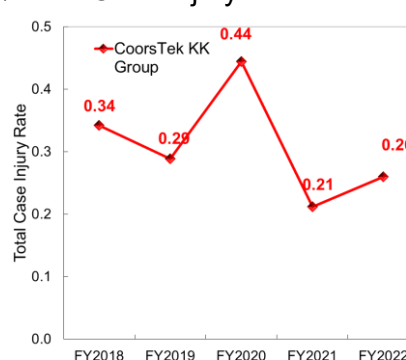
◆ Occupational Accidents in the CoorsTek Group



◆ Incidence Rate*1



◆ Total Case Injury Rate*2



Note: Figures other than CoorsTek KK Group are based on statistics from the Ministry of Health, Labour and Welfare on occupational accidents.

*1 Incidence rate: Number of accidents involving one or more lost workdays per million work hours

*2 Total Case Injury Rate: Number of total accidents per 200-thousand work hours

Objectives and Results of Occupational Safety and Health Activities

Objectives of occupational safety and health

The CoorsTek KK Group accords the highest priority to human life. To ensure workplace safety and to safeguard the health of employees and other concerned parties, we have established the Basic Policy on Safety and Health Management in which we maintain safe, comfortable workplaces. We work to prevent occupational accidents and illnesses and encourage employees to maintain their health.

◆FY 2022 Priorities and Results

FY 2022 Priorities	Objectives	Performance	Evaluation*4
1. Initiatives to eliminate occupational accidents	(1) Improve Human Performance	·Conducted human performance education for managers and supervisors	○
	(2) Promote risk reduction ·Unification of risk assessment(RA) format ·Improvement of 5% or more for Risk Level*1 II and III ·Improvement based on ergonomics*2 ·Nearmiss(NM) Injury ratio*3: 221 or more	·Unification of RA evaluation criteria ·Level II,III:12.6% improvement ·Ergonomics:113% improvement ·NM Injury ratio:288	◎
	(3) ·Introduction of CoorsTek global standards ·Enhancement of safety levels based on health and safety guidelines	·We have changed to horizontal deployment of countermeasures for incidents that have occurred since May. ·Completed all improvements for the initial failure of the machine guard.	◎
2. Physical and mental health maintenance and improvement	(1) COVID-19	·Infection prevention measures, response after infection and implementation of spread prevention measures	○
	(2) Promote awareness of the importance of improving medical checkup results (awareness activities about irregularity rates above the national average)	·Education by industrial physicians and occupational health consultants	○
	(3) Improvement and enhancement of mental health environment	·Systematically conducted	○

*1 Risk Level II: Risk requiring systematic reduction measures, Level III: Risk requiring prioritized reduction measures

*2 Ergonomics: Optimizing machine design and work methods to reduce physical burden and prevent illness.

*3 Nearmiss(NM) Injury ratio:Nearmiss number/Injury number

*4 ◎ Objective exceeded ○ Objective achieved △ Objective not achieved

◆FY 2023 Priorities

1. Initiatives to eliminate occupational accidents (1) Improve Human Performance (2) Promote risk reduction	2. Physical and mental health maintenance and improvement (1) COVID-19 (2) Awareness of the importance of improving medical checkup results (3) Improvement and enhancement of mental health environment
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Occupational Safety and Health Management

Raising awareness of safety and health

Every year, at each workplace, we are working to raise health and safety awareness by Foresight 4 Safety and during National Safety Week and National Occupational Safety and Health Week, all employees, including those of affiliated companies and cooperating companies, attend safety meetings, lectures, and award ceremonies to raise awareness of safety and health.

In 2022, Message transmission, health and safety commendations, awareness-raising activities, etc. during National Safety Week were held using a remote system, taking measures to prevent infection due to the influence of COVID-19.



Foresight 4 Safety
(Oguni Facility)



Foresight 4 Safety
(Nagasaki Facility)



Live delivery of awards ceremonies and
Plant Manager messages at National
Safety Week events at each workplace
(Hadano Facility)

Occupational safety and health education and training

The Group conducts education programs related to safety and health based on an annual occupational safety and health education and training plan. We work to ensure employees' safety and raise safety and health awareness.



Foresight 4 Safety Training
(Hadano Facility)



Health and Safety Training for
new employees
(Kariya Facility)



Health and Safety Training for
new employees
(Nagasaki Facility)

Hands-on safety training

We consider raising each employee's risk awareness important for eliminating occupational accidents and we provide accident simulation training to enable employees to recognize the risks inherent in their work through personal experience.



Training to find risks
(Oguni Facility)



Risk of caught in machine
(Hadano Facility)



Risk of cut by sharp object
(Kariya Facility)

Implementation of complete lock out , tag out, and try out

Lock Out/Tag Out/Try Out* is a critical procedure for protecting employees who inspect, clean, or maintain machinery or equipment from dangers due to malfunction or incorrect use of the machinery.

*Lock Out: To shut off the source of energy (power) supplied to the machine or device, lock the starting device, and prevent others from operating the machine.

*Tag Out: The use of tags to prohibit the operation of machinery shut off or equipment during shutdown of the energy source of the machinery.

*Try Out: Confirm that mechanical equipment does not move by checking residual energy and turning on the start switch (testing).



LOTOTO Training
(Oguni Facility)



LOTOTO Training
(Coorstek Tokuyama)

Activities of risk reduction

Installation of Machine Guarding

All CoorsTek KK Group is working on the installation of machine guarding * based on the Group Safety and Health Guidelines. For newly installed equipment, safety is evaluated by pre-installation environmental evaluation and equipment design review, and for existing equipment, machine guarding had been systematically installed based on the evaluation results of risk assessment. In FY2022, we have completed improvements to initial machine guard failures at all facilities and CoorsTek Tokuyama. We will continue to improve our machine guards based on regular risk assessments, Foresight 4 Safety, near-miss information, and other risk reduction activities.

* Machine Guarding: Doors, fences, automatic machine stop function, etc. to prevent workers from touching the hazards of the machine.

Ergonomics improvement

All CoorsTek KK Group is working on planned improvements based on the evaluation results of Ergonomics with the aim of reducing the workload of employees.



Before



After

Improved heavy lifting work methods:
Introduced lifting lifters with rollers
(Oguni Facility)



Before



After

Improved disposal of heavy materials:
Installed chain blocks
(Hadano Facility)



Before



After

Improved storage method for muffle tools:
Introduced dedicated carts
(Kariya Facility)



Before



After

Improved solid matter removal work in slurry tanks:
Introduced of high-pressure washing machine
(Nagasaki Facility)

Risk assessment of workplaces for pregnant women

In order to assess whether there are any operations that are burdensome for pregnant women, CoorsTek group categorizes the work environment, work posture, and work restrictions, and conducts risk assessments for each item, and strives to ensure that safety and health are maintained based on the evaluation results.

Employee health

Physical health management

To create workplaces conducive to employee health, the CoorsTek KK Group mandates medical checkups and provides opportunities for health management and counseling about all aspects of health based on the medical checkup results. As a measure to prevent health problems due to overwork, we address the health problems of individual employees by offering consultations with industrial physicians, which can also be arranged based on employee requests.

Mental health

The Group provides preventive training for managers to promote early stage awareness of persons who might have mental health problems and ensure that they are not overlooked, and provides education to enable employees to recognize any change in their mental health. We provide care for employees by assigning counselors and instituting return-to-work support programs for employees who have taken leave due to mental health problems so they can smoothly return to work.

COVID-19 measures

CoorsTek KK Group has established, disseminated, and implemented rules regarding changes to New Way of Working in response to the COVID-19 pandemic. For example, temperature screening, ensuring social distancing, setting up partitions in living rooms and conference rooms, thorough disinfection and ventilation, and disinfection training in the event of an infected person. In addition, the staggered shifts and work from home system was also introduced and are continuing.

Local Community Relations

Responsibility to Local Communities

Earning the community's trust by promoting good corporate citizenship

Disaster preparedness

■ Disaster preparedness activities

To be prepared for a fire emergency or major earthquake, we periodically hold disaster preparedness drills to ensure a rapid and appropriate emergency response and to minimize damage.



Night evacuation drill
& Water discharge drills
(Oguni Facility)



Disaster preparedness drill
(Hadano Facility)



Disaster preparedness drill
(Kariya Facility)



Relief drill
(Nagasaki Facility)

Partnership with Local Communities

The CoorsTek KK Group cooperates and forms partnerships with local communities. We fulfill our responsibility as a member of the community and work to expand opportunities for communication.

The Company provides the Wide Plan Leave System to support employees' volunteer activities. Under this system, employees can use their paid holidays that would otherwise expire and apply them to volunteer activities that make a social contribution.

Excerpt from the CoorsTek KK Group Standards of Conduct

Community relations

We maintain good relations with local communities through cooperation and partnerships and fulfill our responsibility as a member of the community.

Corporate citizenship activities

■ Science class and Community-based lessons with high school

For employees' family members and students, we offer factory tours and opportunities to learn through experience at our workplaces. With the theme of "labor and health" with high school in the Oguni district, we also conducted regional cooperation classes using remote control. Every year, we hold science lectures in partnership with the local government with the aim of nurturing a well-rounded education for children. We had planned another one for August 2022, but had to cancel it due to a spike with COVID-19 cases. We plan to resume it in 2023.



Community-based lessons with high school
(Oguni Facility)

■ Volunteer activities

The Group cooperates closely with local residents to build better communities. Each business site conducts periodic clean-ups in the surrounding area, holds blood donor drives, and promotes traffic safety activities.



Beautification activities
(Kariya Facility)



Forest maintenance activities for water source
(CoorsTek Tokuyama)

■ Other

To celebrate the 150th anniversary of Oguni Elementary School in Oguni-machi, Nishiokitama-gun, Yamagata Prefecture, on December 17, Oguni Facility donated a permanent projector and screen for use in the gymnasium as a commemorative gift. The presentation ceremony was held at the principal's office on March 15, 2022, and was published in the "Yamagata Newspaper" and "Oguni of Public Relations."



Photo of the projector installed in the
gymnasium of Oguni Elementary School
(Oguni Facility)

CoorsTek KK

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For any comments or inquiries concerning this report or our EHS activities, please contact us.