KITZ Group Safety and Environmental Report Digest





The KITZ Group incorporates an ESG standpoint in its management policies to achieve medium-to long-term sustainable growth and solve a variety of issues afflicting the global environment and society.

ESG-centered initiatives and SDGs

Further strengthening the ESG strategy was one of the priorities of the 4th Medium-Term Management Plan, which became effective in fiscal 2019. In March 2020, we visualized the purpose of the SDGs which are closely related to KITZ's most important initiatives. While continuing to improve the initiatives undertaken up to now, we will work towards achieving SDGs in view of a sustainable future by accelerating sustainability management.

Main items	Sub items	Specific actions	SDGs				
	1. Development and supply of	 Development of environmentally friendly materials like lead-free and cadmium-free materials 					
	environmentally friendly products and	2) Development of sterilization/purification equipment					
	services	3) Provision of products complying with RoHS directives and REACH regulations					
Environment		4) Development of products for the clean energy sector					
Contributing to the preservation	2. Promotion of reduction, reuse and	 Promotion of activities to reduce green house gases and CO₂ emissions causing global warming. 					
of the global environment through business activities	recycle of industrial waste	2) Limiting the discharge of environmentally hazardous substances	12 REFERENCE				
	3. Prevention of environmental pollution at	1) Identification of chemicals containing harmful substances and promotion of their	13 american				
	Group and global level	2) Visualizing the environment-related laws and regulations of countries where we have bases and taking measures to comply with those laws and regulations	V				
		1) Introducing and establishing a personnel system for making work easier					
		2) Initiatives aimed at ensuring equal pay for equal work					
	1. Promoting the active participation of	3) Promoting the active participation of female employees					
	diverse human resources (diversity &	rsity & 4) Promoting the active participation of senior human resources					
- · · ·	inclusion)	5) Promotion and training of global human resources	Ţ				
Social		6) Enhancement of systems for promoting a healthy work-life balance	8 DEDNE HORK AND				
/aluing human resources, safety,		1) Developing a working environment where it's safe and healthy to work	- îil				
and local communities	2. Fostering a corporate culture that values safety, health and human rights	2) Thorough enactment of policies to prevent prejudice, discrimination, human rights					
		violations and unfair treatment based on nationality, religion, ethnic group, etc.					
	3. Appropriate business activities	1) Promotion of supply chain management through fair transactions					
		2) Pursuit of customer satisfaction by ensuring quality and safety					
	4. Social contribution activities	1) Promotion of social contribution activities					
		1) Effective operation of the Nominating Committee and the Compensation Committee					
	1. Establishing a sound corporate	2) Appointment of female officers					
	governance system	 Strengthening of internal control (internal audit) based on the Companies Act in addition to the J-SOX Act 					
Governance	 Improving management transparency and strengthening management 						
Fair and just management	monitoring systems	2) Auditing and supervision of group companies by external officers					
		3) Strengthening of the Internal Audit Office					
	3. Improving the effectiveness of the Board	1) Strengthening governance and revitalizing the Board of Directors by appointing outside officers with a wide range of insight and experience					
	of Directors	 2) Implementation of performance evaluation for the Board of Directors and responding to related issues 					

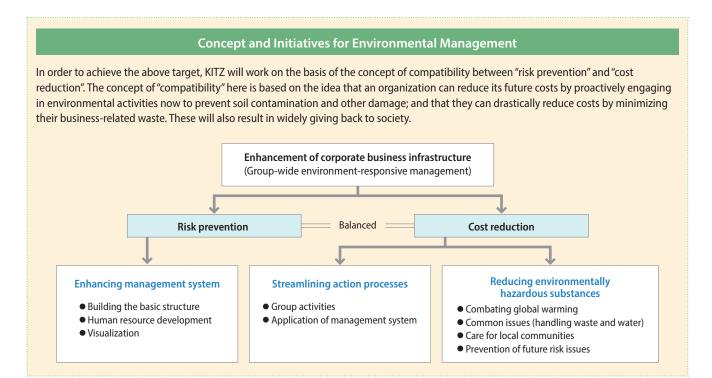
KITZ Group Principle of Environmental Activities

KITZ places the highest priority on safety and health in all of its activities based on the principle of showing respect for people. Group companies conduct extensive safety and health programs with the goal of zero accident.

KITZ Group Companies: Environmental Action Policy

KITZ Group companies shall recognize environmental issues as an essential perspective of corporate management and every employee shall positively participate in the following activities.

- 1. Development and supply of environmentally friendly products and services
- 2. Effective use of resources
- 3. Promotion of reduction, reuse and recycle of waste
- 4. Prevention of environmental contamination



KITZ Group Safety and Health Fundamental Philosophy

KITZ places the highest priority on safety and health in all of its activities based on the principle of showing respect for people. Group companies conduct extensive safety and health programs with the goal of zero accident.

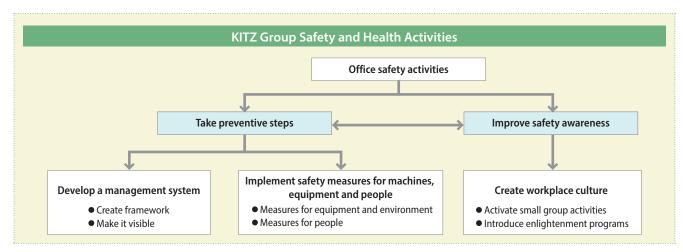
1.	KITZ maintains stimulating and pleasant workplaces that contribute to the mental and physical wellbeing of all employees.
2.	KITZ is dedicated to ensuring safety and health for all employees by complying with Japan's Industrial Safety and Health Act and other associated laws and regulations as well as by adhering to internal rules and standards.
3.	KITZ improves safety and health management by educating and training all employees with regard to the knowledge and skills needed for safety and health programs.
4.	KITZ is dedicated to ensuring the safety of its machinery and equipment so that employees can do their jobs without concern.
5.	KITZ reduces exposure to risk factors with the goal of eliminating potential sources of danger and harm to employees in workplaces.

Take Preventive Steps and Improve Safety Awareness Through Group-wide Safety and Health Programs

The company will address safety from two directions: "Enhancement of safety activities and systematic incorporation of prevention measures into production lines" and "Promotion of volunteer activities at workplaces (bottom-up approach via small group activities)". Through this two-pronged approach, the company will encourage a change in every employee's mindset and increase employees' awareness with regard to safety, thereby reforming the corporate culture.

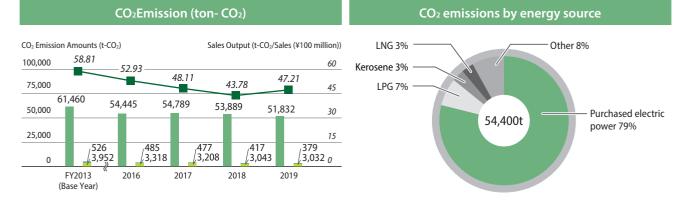
KITZ has formulated the following key actions as measures for employee safety and health with the aims of taking preventive steps for safety and improving safety awareness.

- Develop a management system (comply with safety and health related laws and regulations)
- Implement safety measures for machines, equipment and people (prevent similar accidents)
- Create workplace culture (promote zero accidents)



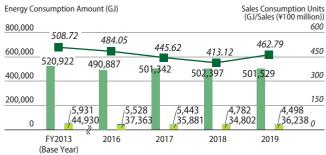
Main environmental and health/safety data	
	.÷.

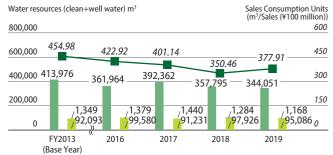
- Manufacturers (except for sales offices)
 - Sales offices of manufacturers
- Service companies
- Consumption units at manufacturers and service companies (except for sales offices)



Energy Consumption (GJ)

Water resources

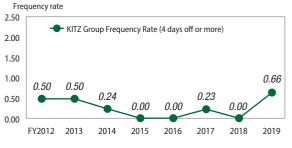




Discharge of Industrial Waste (ton)



Trends in frequency rate



* KITZ and domestic manufacturing Group companies

Overall Image of Environmental Impact

IPUT Major Energies		KITZ Grou (KITS + Manufac	up KITZ Gro turers) (Sales Off		KITZ Group Service Companies)	М	ain Raw Materia	ls	KITZ Group (KITS + Manufacturers)
 Electricity Purchased electric power solar power generation City gas LNG Bunker A LPG Kerosene Cold and hot water 	(1,000 kW (1,000 n ((h) 1,0 (t) 5 (kl) 3i (t) 1,0	46 97 11 06 50 37	383 16 14	3,873 257 53 155 19	M	Lead Nickel Manganese Chrome Copper Zinc ain Auxiliary Ma Sand for cores and Paint and thinner		2,659 547 61 532 45,920 19,477 4,558 146
Water Clean water Underground water	(1,000 n (1,000 n	n ³) 1	48 97 Procurement	1	95 Produc	•	Dil solution	(t)	161
	TZ Group		KITZ Group rvice Companies)		Discharge of W	/aste	KITZ Group	KITZ Group	KITZ Group (Service Companies)
CO2 (t) Dust (t) NOx (t) SOx (t)	51,832 1.6 3.2 4.0	379	3,032 4.0		 Industrial wast Non-industrial Valuable substa Final disposal 	waste (t)	7,427 187 5,604 308	1	104 119 37 37
					Discharge of P Target Chemic • Air • Waste		59 223		

Environmental Accounting

Environmental	Conservation Costs	
	conscivation costs	

	Category	Main actions	Capita investme		Expenditures
Cos	t for premises		158,2	35	653,530
٩	Pollution control	Introduction, purchasing and maintenance of facilities	65,520		231,860
3reakdown	Global environment protection	Introduction of facilities and equipment	92,3	34	223,876
Br	Resource circulation	Reduction, recycling and outsourced disposal of waste	3	80	197,794
Pro	duct recycling	Collection and recycling of used goods		0	13,335
Adr	ninistrative duties	ISO-related works, environmental measurement and disclosure of environmental information	2,818		81,735
	earch and elopment	Development of lead-free and other environmentally friendly products	0		70,808
Soc	ial activities	Promotion of greening activities	0		563
	naged environment overy	Purification of underground water	0		600
Oth	er costs		0		0
	Total		161,0	53	820,571
	Total costs	Costs for environmental conservation		Total operation costs (A)	
Tota	al capital investment	1.2% against total operation cost (A)			13,617,042
Tota	al R&D expenditures			2,611,849	

(Thousand of yen) Environmental Conservation Effects

Category	Numerical targets (Unit)	Results in FY2018	Results in FY2019	FY2019 less FY2018
	Consumed total energies (GJ)	537,199	531,715	(5,484)
Effects related with	Consumed PRTR materials (ton)	6,195	2,428	(3,767)
input resources	Consumed clean water (m ³)	253,822	243,056	(10,766)
	Consumed underground water (m ³)	201,899	196,900	(5,000)
	Greenhouse gas emission (ton-CO ₂)	56,931	54,109	(2,822)
Effects related with output waste and pollutants	Discharged or displaced chemicals (ton)	256	282	26
poliutants	Discharged total waste (ton)	7,685	7,761	76

Economic Effects of Environmental Conservation Activities

(Net financial gain)		(Thousands of yen)	
	Amount		
Profits	Earned from recycling waste and used products	354,479	
	Saved by energy saving activities	(757,711)	
Saved expenditures	Reduced recycling expenditures	127,071	
expenditures	Saved by waste reduction	(15,477)	
	(291,638)		

Scope of compilation is KITZ Corporation (Head Office, Nagasaka, Ina, Chino), KITZ Metal Works Corporation, KITZ Micro Filter Corporation, KITZ SCT Corporation, Shimizu Alloy Mfg. Co., Ltd., KITZ Engineering Service Co., Ltd. and Hotel Beniya

Strengthening Overseas Environmental Management

The KITZ Group formulated its "KITZ Global Vision 2020," a Long-term Management Plan, and places promotion of environment-responsive business operations as a major item for strengthening its business foundations. In the Environmental Mid-term Plan, we set out a target for all production bases in Japan and overseas to acquire ISO 14001 certification. We will continue to make efforts toward the establishment of global environmental management.



Business Offices That Have Acquired Integrated ISO 14001 Certification

Name of business office						
KITZ Corporation Nagasaka Plant	KITZ Micro Filter Corporation (Head office plant and Chino Plant)					
KITZ Corporation Ina Plant	KITZ SCT Corporation					
KITZ Corporation Chino Plant	Shimizu Alloy Mfg. Co., Ltd.					
KITZ Metal Works Corporation	Toyo Valve Co., Ltd. Koshin Sales Office					

Status of Acquisition of ISO 14001 Certification (Overseas)

Name of business office	Date of acquisition			
(1) KITZ Corporation of Taiwan	November	2000		
(2) KITZ (Thailand) Ltd. Bangplee Plant	December	2010		
(3) KITZ Corporation of Kunshan	December	2010		
(4) KITZ Corporation of Jiangsu Kunshan	April	2011		
(5) KITZ (Thailand) Ltd. Amatanakorn Plant	February	2012		
(6) KITZ Corporation of Europe, S.A.	May	2012		
(7) Cephas Pipelines Corp.	May	2003		
(8) Filcore Co., Ltd.	August	2014		
(9) Metalúrgica Golden Art's Ltda.	December	2019		

Calculation Standards (Results in FY2019)

pe	Enviro	nmental ance index	Unit		Calculation method																
				Energy amount consumed	d in busi	ness activities (GJ)		Σ[Each energy	gy annua	l use amount x e	ach unit calorific value] x 10-3										
			GJ	* Source: Energy supply ar	* Source: Energy supply and demand results in 2018 (final) (published on April 14, 2020) Resources and Energy Agency																
		Total energy input amount		Electricity: 3.6 MJ/kWh		Bunker A: 38.9 MJ	le l	Kerosene: 36	Kerosene: 36.5 MJ/ℓ		Light Oil: 38.0 MJ/ℓ										
INPUT				LPG: 50.1 MJ/kg		City Gas: 40.0 MJ/r	n³	Gasoline: 33	.4 MJ/ℓ	L	NG: 54.7 MJ/kg										
Ζ			GJ	Amount of cold and hot water, t	the heat s	ource, accepted from loc	al cooling a	nd heating system for ve	ntilation us	e at KITZ Head Offic	e Building (Makuhari New City, Chib										
		aw materials Ton Annual use amount of raw materials directly used for manufacturing of products (t)																			
	Use an	nount of water	m ³	Annual use amount of clea	an wate	r and underground v	vater (m ³)														
		Business activities		CO ₂ emitted from the energy	rgy used	in business activitie	es (t)														
	unts			* List of calculation method and emission coefficients in the calculation, report and publication system under the Law to Promote Global Warming Cou						e Global Warming Countermeasure											
	Carbon dioxide (CO ₂) emission amounts							Electric power			Kansai Ele Co., Ltd.: (Chubu Eleo 0.457	tric Power Co., Inc.:	Hokkaido Electric Power Co., Inc.: 0.643						
	emissic																	(kg-CO ₂ /kWh)	Tohoku E 0.522	lectric Power Co., Inc.:	Hokuriku Incorpora
5	02) (Bunker A: 2.70 kg-CO ₂ /ℓ		Kerosene: 2.48 kg-	CO2/l		Light C	0il: 2.61 kg-CO2/{											
Ē	de (C						Ton	LPG: 2.96 kg-CO ₂ /kg		City Gas: 1.99 kg-C	02/m ³	Tokyo Gas: 2.19 kg-	CO ₂ /m ³	Osaka/Kita Ga	s: 2.29 kg-CO ₂ /m ³						
ð	ioxi			Cold/Hot Water: 0.057 kg-	CO2/MJ	Gasoline: 2.24 kg-	CO2/l		LNG: 2.	70 kg-CO ₂ /kg											
	o uo			Dust amount (t) = dust de	nsity (g/	/m³N) x dry exhaust	gas amou	nt per unit hour (m³	N/h) x an	nual operation h	nours (h/year) x 10-6										
	Carb			SOx (t) = sulfur oxide density (ppm) x dry exhaust gas amount per unit hour (m ³ N/h) x annual operation hours (h/year) x 64/22.4 x 10 ⁻⁹																	
				NOx (t) = nitrogen oxide d	lensity (ppm) x dry exhaust g	gas amou	nt per unit hour (m³l	V/h) x an	nual operation h	ours (h/year) x 46/22.4 x 10 ⁻⁹										
	Was	te volume		Final disposed amount: consig * General Waste: 9.4% quoted (Results in fiscal 2017)" Indus	from the I	Vinistry of the Environm	ent, "Statu	of Discharge and Dispo													

Target Period: Target period was FY2019 (April 1, 2019 ~ March 31, 2020) and the results for the period are reported. Scope of Reporting: KITZ Corporation and six group companies in Japan (see website). Policy and Standards for Collection and Reporting of Environmental Performance Information: In compliance with environment-related laws and regulations, the report is published in accordance with the "KITZ Group Environmental Philosophy," the "KITZ Group Environmental Action Guidelines," the "KITZ Group Environment, Safety and Health Performance Data Calculation Guidelines" and other environment-related internal regulations. Referenced Guidelines:

The Ministry of the Environment, Environmental Report Guidelines (2012 Edition) The Ministry of the Environment, Environmental Accounting Guidebook (2005 Edition) Published: October 2020 Next publication: July 2021 (to be issued every year)

KITZ Corporation Environmental and Safety Group

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