KAJIMA CORPORATION

ENVIRONMENTAL DATA

2019

Environmental Policy

Kajima, as the company "Building for the Next 100 Years," pursues a unique long-term environmental vision, doing its part in the broader social efforts to preserve the environment and ensure economic sustainability.

1

We work to reduce the environmental impact of our business and take into consideration the entire lifecycle of the structures we construct. We thereby seek to help build societies which use materials responsibly, have a low carbon footprint, and harmonize with nature.

2

As a standard for achieving these goals, Kajima:

- Creates innovative technologies that help safeguard the environment and use resources sustainably;
- Engages in construction management processes to prevent environmental damage caused by hazardous materials used in construction projects; and
- Cooperates with the public, including by proactively disclosing information.

Kajima Environmental Vision

Background of Kajima Environmental Vision

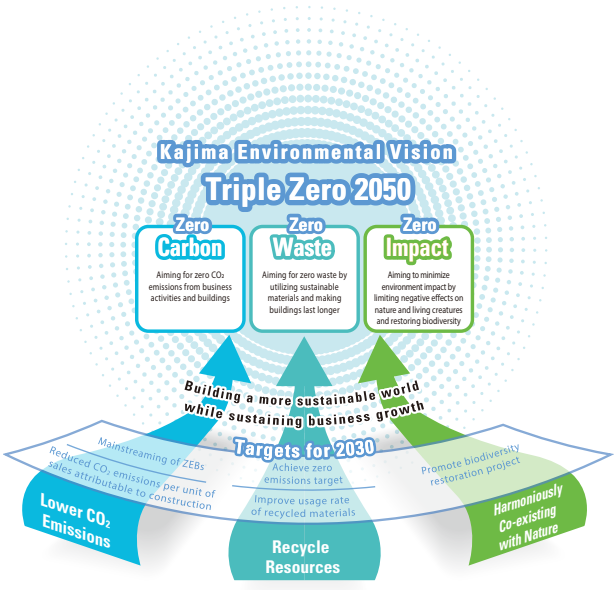
Kajima assess environmental risks and opportunities in the construction business as follows.

Low Carbon Society	• In order to achieve the 80% greenhouse gas reduction targets of developed countries by 2050, the introduction of renewable energy as well as energy conservation of society is urgently needed. • High expectation is observed to construction industry like initiatives to zero energy building (ZEB) since it is a high-priority measures from the standpoint that energy efficiency of buildings is in particular cost and reduction effectiveness together with adaptable easily. • Resource usage has been largely utilized as well as CO_2 emissions related to the production, processing and transportation of materials.
Recycling Resources Society	• There is a room for more efficient resource utilization since construction industry has a large amount of resource and waste consumption. • Potential to take advantage of recycled materials (including derived from other industries),therefore, an important role in resource recycling. • By leveraging the long-life of the building, the large role in the creation of stock society.
Natural Symbiosis Society	• In the construction business, a role in modifying the direct natural environment through construction projects which has been involved in the local eco-system, as well as the potential of biodiversity restoration in the urban redevelopment. • Since the urban concentration of the population progresses, the growing importance of biodiversity restoration in the city. • Through wood procurement and resource procurement, biodiversity can be addressed in logged spots.

Kajima Environmental Vision - Triple Zero 2050

The priority environmental focus in the Medium-Term Business Plan (Fiscal 2018-2020) announced last year is “pursue environmental and energy opportunities for the business activities of the Kajima Group and its customers.” We are stepping up specific efforts in our own business activities to reduce carbon dioxide (CO_2) emissions at construction sites, as well as utilizing our superior technologies to help customers address their environmental and energy issues.

Formulated in 2013, the Kajima Environmental Vision: Triple Zero 2050 is the basis of our environmental initiatives. Our ultimate goals in the areas of CO_2 reduction, resource recycling and harmonious co-existence are, respectively, zero carbon, zero waste, and zero impact. In particular, to reflect the signing of the Paris Agreement and the rise in ESG investment, we established new targets for reducing CO_2 emissions. We aim to reduce our CO_2 emission intensity (t-CO_2/¥ hundred million of sales) by 30% compared to fiscal 2013 by 2030, and by 80% no later than 2050.



	Social Goals	Triple Zero 2050	Targets 2030
Building a More Sustainable World	**Lower CO_2 Emissions** Balancing greenhouse gas emissions from human activities with the Earth's capacity for CO_2 absorption	**Zero Carbon** Aiming for a zero carbon footprint by reducing the Group's greenhouse gas emissions (Scope 1, 2, and 3 emissions) by at least 80% compared to fiscal 2013	**Group-wide** Reduce Group-wide greenhouse gas emissions (Scope 1 and 2 emissions) per unit of sales to 30% of fiscal 2013 level or lower (equivalent to a 30% reduction of total emissions with fixed construction amount); contribute to the reduction of Scope 3 emissions as well, through joint efforts in the supply chain **Construction Operations** Lower construction site greenhouse gas emissions per unit of sales to 30% of fiscal 2013 level or lower **Architectural Design** Lower CO_2 emissions in the operation stage of newly completed buildings by at least 30% compared to Japan's energy-saving standard Mainstream ZEB Ready buildings and pursue net ZEB for flagship projects
	Recycle Resources Pursuing zero emissions by employing state-of-the-art infrastructure maintained and operated using sustainable resources	**Zero Waste** Aiming to eliminate waste from construction operations by ensuring zero landfill disposal of waste during construction, utilizing sustainable materials, and making buildings last longer	Completely eliminate final landfill waste from construction operations Achieve a usage rate of recycled materials of at least 60% for principal construction materials (steel, cement, ready-mixed concrete, crushed stone and asphalt)
	Harmoniously Co-Existing with Nature Valuing the continuous benefits of ecosystem services by minimizing the impact of human activities on the environment and living creatures	**Zero Impact** Aiming to minimize the overall environmental impact of construction operations by limiting their effect on nature and living creatures while promoting the restoration of biodiversity and new ways to make use of its benefits	Promote biodiversity restoration projects Build a portfolio of effective projects and make them hubs for biodiversity-related networking
	Common Foundation Initiative Areas	• Management of hazardous substances: Ensure preventative measures (especially for soil contamination and asbestos) and proper management of chemical substances • Conduct research and technology development • Actively distribute information in and outside the Company	

Environmental Targets (FY2018-2020) and FY2018 Actual Figures

		Three-Year (FY2018–2020) Targets	FY2018 Targets	FY2018 Results
Lower CO_2 Emissions	**Construction**	● Reduce CO_2 emissions per unit of sales attributable to construction by 8% compared to fiscal 2013	● Reduce CO_2 emissions by 4%	● Reduced CO_2 emissions by 9%
	Design	● Secure conformance with QCDSE (Quality, Cost, Design, Safety, Environment) mandatory standards in Building Energy Efficiency Act	● Implement action plans that conform with mandatory standards in Building Energy Efficiency Act	● Set and managed original issues in line with building use
		● Develop industry-leading CO_2 emissions targets	● Actively utilize labeling programs such as the Building Energy-efficiency Labeling System (BELS)	● Numerous projects for which efforts are underway to obtain BELS, CASBEE New Structure, CASBEE Wellness Office, LEED NC and other certifications ● One CASBEE New Structure certification obtained
			● Achieve corporate targets for energy efficiency (20% reduction)	● 23.2% reduction
Recycle Resources	**Construction**	● Less than 3% landfill waste including sludge	● Less than 3% landfill waste including sludge	● Final disposal rate of 4.5% (including sludge)
	Design	● Implement green procurement	● Propose more than four items, indicate them on working drawings, and verify whether or not the proposed items were ultimately adopted	● Average of 5.3 items proposed
		● Design buildings with a longer life	● Attain a score of at least 3.6 for evaluations based on in-house check sheet	● Evaluation: Average of 3.64
Harmoniously Co-Existing with Nature		● Implement outstanding biodiversity projects	● Implement more than six outstanding biodiversity projects per year	● Selected nine outstanding projects
		● Reduce the environmental impact of construction (particularly through management of hazardous materials and polluted water management, etc.)	● Limit the environmental impact of construction (particularly through management of hazardous materials and polluted water, etc.)	● No environmental impact from hazardous materials or polluted water (Two minor procedural violations of the Waste Management and Public Cleansing Act)
Common Foundation Initiative Areas	Implement R&D and promote technologies and services that support Triple Zero 2050 objectives			
	R&D	● Implement research and technology development that contributes to preservation of the environment and sustainable use ● More than six examples of deploying research or technology results to onsite operations over the three-year period	● Environmental contribution R&D projects: 6 ● Environmental contribution technology projects deployment: 2	● Designated environmental topics: 18 ● Results deployed: 3 instances
	Environment Engineering	● Promote environmental management in concert with Group companies ● Make technical innovations and create projects based on Triple Zero 2050	● Improve environment-related proposal capabilities, pursue project making	● Strengthened efforts in four priority fields ● Efforts toward next-generation technologies/ projects, environmental fairs held in collaboration with branches (3 times)
	Engineering	● Provide customers with high-environmental performance production facilities	● Confirm Triple Zero 2050 approaches and measures for dealing with chemical substances in projects	● Confirmation at Division Design Review, project review committees (reviews conducted for all 14 target projects)

Material Flow

Construction Sites

INPUT		
● Energy		
Electricity	9,358×10⁴kWh	✓
Diesel oil	75,703kℓ	✓
Kerosene	2,137kℓ	✓
● Water	71.3×10⁴m³	✓
● Main construction materials	218.9×10⁴t	

OUTPUT		
● CO_2 emissions	25.1×10⁴t	✓
● Construction surplus soi	75.0×10⁴m³	✓
● Hazardous materials collected		
Materials containing asbestos	56,926t	✓
CFCs and halon	1.5t	✓
Fluorescent tubes	77.9t	✓
● Construction waste	199.4×10⁴t	✓
● Final disposal volume	8.5×10⁴t	✓

Changes in CO_2 emissions attributable to construction		
Total emissions	25.1×10⁴t-CO_2	✓
Basic unit	20×10²billion ¥	✓
Reduction rate (compared with FY1990)	9%	✓

Volume of construction waste and final disposal volume		
Volume	199.4×10⁴t	✓
Volume (excluding sludge)	130.2×10⁴t	✓
Final disposal volume	8.5×10⁴t	✓
Final disposal volume (excluding sludge)	5.8×10⁴t	✓
Final disposal rate	4.3%	✓
Final disposal rate (excluding sludge)	4.5%	✓

Office

INPUT		
● Energy		
Electricity	2,544×10⁴kWh	✓
Heavy oil	11kℓ	✓
Kerosene	10kℓ	✓
Gas	15.7×10⁴m³	✓
Heating, Steam, Cooling	16,755GJ	✓
● Water	15.6×10⁴m³	✓

OUTPUT		
CO_2 emissions	1.4×10⁴t	✓
Volume of waste	2,036.4t	✓

■Scope: Kajima Corporation only
・Construction sites: all domestic and overseas sites (excluding domestic affiliate companies and overseas subsidiaries)
・Offices: offices of Kajima corporation and overseas offices (excluding domestic affiliate companies and overseas subsidiaries)

■Regarding third party verification
・Environmental performance data for FY2018
Greenhouse gas emissions (Scope 1, 2, 3,), energy use, clean water use, hazardous materials and waste emissions were verified by Japan Quality Assurance Organization (JQA).
Items indicated with ✓ were verified by the third party. (Verification document attached to the end page)

Zero Carbon

Any greenhouse gasses other than CO_2 are not emitted through our business operations.

CO_2 emissions from construction sites

(FY)

		1990	2014	2015	2016	2017
Emissions	$\times 10^4$t-CO_2	46.8	26.2	26.2	25.8	27.4
Basic unit	t-CO_2/10^2million ¥	25.8	22.2	21.5	21.5	21.4
Reduction rate	%	—	14	16.5	16.6	16.9

		2013	2018
Emissions	$\times 10^4$t-CO_2	22.8	25.1 ☑
Basic unit	t-CO_2/10^2million ¥	22.0	20.0 ☑
Reduction rate	%	—	9.0 ☑

* Since the results of FY2018, the base year of reduction rate has been changed from FY1990 to FY2013.

Scope type CO_2 emissions (construction sites and offices)

(FY)

		2014	2015	2016	2017	2018
Scope-1	$\times 10^4$t-CO_2	20.4	20.4	18.5	19.0	20.5 ☑
Scope-2	$\times 10^4$t-CO_2	7.3	7.4	8.8	9.8	6.0 ☑

Energy Consumption

(FY)

		2014	2015	2016	2017	2018
Total amount of energy consumption*	$\times 10^4$kWh	117.5	118.6	120.1	113.6	115.4 ☑
Fossil fuels consumption	$\times 10^4$kWh	81.6	81.4	74	75.9	81.8 ☑
Construction sites	$\times 10^4$kWh	81.3	81.2	73.7	75.6	81.6 ☑
Offices	$\times 10^4$kWh	0.3	0.2	0.3	0.3	0.2 ☑
Purchased electricity	$\times 10^4$kWh	12.8	13.1	16.4	13.5	11.9 ☑
Construction sites	$\times 10^4$kWh	10.2	10.6	13.8	10.8	9.4 ☑
Offices	$\times 10^4$kWh	2.6	2.5	2.6	2.7	2.5 ☑
Steam/Heating/Cooling consumption(only office)	$\times 10^4$kWh	0.7	1.0	0.7	0.6	0.6 ☑

* The total amount of energy consumption is different from the simple total value of each energy consumption, since it sums up the value obtained by converting the purchased electric energy into the primary energy.

Contribution amount of indirect CO_2 reduction

(FY)

		2014	2015	2016	2017	2018
Contribution amount of CO_2 reduction attributable to green procurement (blast furnace cement/concrete)	$\times 10^4$t-CO_2	8.6	9.9	10.4	10.0	9.4 ☐
Contribution amount of CO_2 reduction attributable to energy-saving design of buildings	$\times 10^4$t-CO_2	80.5	76.6	129.3	39.0	31.3 ☐
Total	$\times 10^4$t-CO_2	89.1	86.5	139.7	49.0	40.7 ☐

* From FY2017, the CO_2 emission amount is calculated by multiplying annual contribution of CO_2 reduction attributable to energy-saving design of buildings, which are designed internally and completed in the FY, by the life-cycle of buildings (30years).
The previous year releases have been re-calculated using to align with this definition.

Zero Waste

Overseas construction sites are excluded from the calculation because standards and treatment methods for waste are greatly different from country to country.

Volume of construction waste and final disposal volume

(FY)

		2014	2015	2016	2017	2018
Volume	×10⁴t	197.5	248.6	230	198.8	199.4 ☑
Volume (excluding sludge)	×10⁴t	132.6	162.6	123.6	123.4	130.2 ☑
Final disposal Volume	×10⁴t	13.9	16.1	13.2	4.8	8.5※ ☑
Final disposal Volume (excluding sludge)	×10⁴t	4.5	5.0	3.3	2.6	5.8 ☑
Final disposal rate	%	7.1	6.5	5.8	2.4	4.3 ☑
Final disposal rate (excluding sludge)	%	3.4	3.1	2.7	2.1	4.5 ☑

*Total waste disposal volume: total volume from construction sites (the table above) and offices (the table: volume of offices waste) is 86,850t

Waste treatment by category

(FY)

Construction waste			Concrete remnants			Asphalt Concrete remnants			Wood scrap		
			2016	2017	2018	2016	2017	2018	2016	2017	2018
Processing Category	Recycled volume	t	869,384	827,177	797,971 ☑	109,495	135,460	139,679 ☑	39,251	31,011	42,700 ☑
	Reduction volume	t	8	119	28 ☑	22	23	26 ☑	529	506	673 ☑
	Final disposal volume	t	1,444	831	1,994 ☑	318	490	439 ☑	185	288	421 ☑
	Total volume	t	870,836	828,127	799,992 ☑	109,835	135,972	140,144 ☑	40,235	31,806	43,794 ☑

Construction waste			Construction sludge			Mixed waste		
			2016	2017	2018	2016	2017	2018
Processing Category	Recycled volume	t	892,615	647,646	601,964 ☑	23,540	27,742	35,982 ☑
	Reduction volume	t	70,268	76,445	62,959 ☑	2,413	2,413	2,177 ☑
	Final disposal volume	t	99,168	22,404	26,601 ☑	8,232	7,442	13,415 ☑
	Total volume	t	1,062,051	746,495	691,524 ☑	34,185	37,596	51,574 ☑

Recycle rate by waste category

(FY)

Construction waste			Concrete remnants			Asphalt Concrete remnants			Wood scrap		
			2016	2017	2018	2016	2017	2018	2016	2017	2018
Processing Category	Recycled rate	%	99.8	99.9	99.7 ☑	99.7	99.6	99.7 ☑	98.2	97.5	97.5 ☑
	Reduction rate	%	0.0	0.0	0.0 ☑	0.0	0.0	0.0 ☑	1.3	1.6	1.5 ☑
	Final disposal rate	%	0.2	0.1	0.2 ☑	0.3	0.4	0.3 ☑	0.5	0.9	1.0 ☑
	Total	%	100	100	100 ☑	100	100	100 ☑	100	100	100 ☑

Construction waste			Construction sludge			Mixed waste		
			2016	2017	2018	2016	2017	2018
Processing Category	Recycled rate	%	84.0	86.8	87.0 ☑	68.9	74.6	69.8 ☑
	Reduction rate	%	6.6	10.2	9.1 ☑	7.1	5.3	4.2 ☑
	Final disposal rate	%	9.3	3.0	3.8 ☑	24.1	20.0	26.0 ☑
	Total	%	100	100	100 ☑	100	100	100 ☑

Zero Waste

Emissions by waste category (FY2018)

Construction waste	Volume	Percentage of waste volume
Concrete remnants	799,992t ☑	40% ☑
Asphalt Concrete remnants	140,144t ☑	7% ☑
Wood scrap	43,794t ☑	2% ☑
Construction sludge	691,524t ☑	35% ☑
Mixed waste	51,574t ☑	3% ☑
Others	266,671t ☑	13% ☑
Total volume	1,993,699t ☑	100% ☑

Emissions by construction type (FY2018)

Construction waste	New construction		Demolition		Others	
	Volume	Percentage of waste volume	Volume	Percentage of waste volume	Volume	Percentage of waste volume
Concrete remnants	208,472t ☑	20% ☑	520,760t ☑	66% ☑	70,760t ☑	47% ☑
Asphalt Concrete remnants	63,247t ☑	6% ☑	59,186t ☑	7% ☑	17,712t ☑	12% ☑
Wood scrap	26,690t ☑	3% ☑	11,842t ☑	1% ☑	5,263t ☑	3% ☑
Construction sludge	16,968t ☑	2% ☑	25,266t ☑	3% ☑	9,341t ☑	6% ☑
Mixed waste	82,104t ☑	8% ☑	117,138t ☑	15% ☑	67,429t ☑	44% ☑
Others	585,333t ☑	56% ☑	52,986t ☑	7% ☑	53,206t ☑	35% ☑
Total volume	982,812t ☑	100% ☑	787,177t ☑	100% ☑	223,710t ☑	100% ☑

Volume of offices waste

(FY)

		2014	2015	2016	2017	2018
Offices	t	974.6	1,389.6	1,414.8	1,942.4	2,036.4 ☑

Water consumption

(FY)

		2014	2015	2016	2017	2018
Construction sites	$\times 10^4 m^3$	164.2	141.7	159.7	86.5	71.3 ☑
Offices	$\times 10^4 m^3$	15.0	13.6	12.7	14.8	15.6 ☑
Total	$\times 10^4 m^3$	179.2	155.3	172.4	101.3	86.9 ☑

Usage rate of recycled materials

(FY)

Material			2016	2017	2018
Cement	Total usage	t	1,250,000	1,270,000	1,460,063 ☐
	Recycled material usage	t	409,000	390,314	368,654 ☐
	Usage rate of recycled materials	%	33	31	25 ☐
Aggregate	Total usage	t	565,000	909,000	674,733 ☐
	Recycled material usage	t	209,000	278,000	445,273 ☐
	Usage rate of recycled materials	%	37	31	66 ☐
Asphalt	Total usage	t	17,000	54,000	53,947 ☐
	Recycled material usage	t	13,000	43,000	44,656 ☐
	Usage rate of recycled materials	%	76	80	83 ☐
Total	Total usage	t	1,832,000	2,233,000	2,188,743 ☐
	Recycled material usage	t	631,000	711,000	858,583 ☐
	Usage rate of recycled materials	%	34	32	39 ☐

Zero Impact

Recover amount of CFCs & halons

(FY)

		2014	2015	2016	2017	2018
Recover amount	t	6.8	3.4	0.1	5.3	1.5 ☑

Recover amount of used florescent lamp

(FY)

		2014	2015	2016	2017	2018
Recover amount	t	47.3	48.1	34.9	42.2	77.9 ☑

Disposal volume of PCB include equipment

(FY)

		2014	2015	2016	2017	2018
Number of items		940	52	24	8	22 ☑

Disposal volume of hazardous materials (published from FY2017)

(FY)

			2018
Number of items	t	Fluorocarbon/ halon, fluorescent lamps (mercury), asbestos and other hazardous materials	523,009 ☑

Recover amount of materials containing asbestos

(FY)

		2014	2015	2016	2017	2018
Recover amount	t	13,946.3	21,329.2	13,250.5	17,490.1	56,926.0 ☑

Number of soil contamination surveys

(FY)

	2014	2015	2016	2017	2018
Number of surveys as a designated institution	5	5	17	17	14 ☐
Number of law investigation included in above number	1	0	5	5	7 ☐

Air pollutant emissions

(FY)

		2014	2015	2016	2017	2018
NOX	t	1,340	1,340	1,220	1,250	1,346 ☑
SOX	t	200	200	180	185	200 ☑

2018 Environmental accounting report

1. Overview

Kajima has shifted to the segment accounting, which was limited to the construction waste the subject of environmental accounting in the FY 2010.

- Construction waste is managed by manifest system, together with high accuracy of numerical value (product category of emissions and disposal amount).
- Construction waste revealed to be the largest cost factor, which accounts for half of the total environmental cost based on the survey results of environmental accounting.
- Waste disposal is evaluated from both aspects of cost and environmental impact, and use it as an incentive for zero emissions.

2. Result on major construction waste

Construction waste	Volume of waste (171×10^4t)	Processing cost (144.6×10^2million ¥)	CO_2 emissions (1.1×10^4t)
Construction sludge	681,413t	6,747 x million ¥	4,714t
Concrete remnants	798,713t	4,065 x million ¥	4,010t
Asphalt concrete remnants	140,143t	633 x million ¥	351t
Mixed waste (organic)	41,822t	1,904 x million ¥	1,731t
Mixed waste (inorganic)	2,166t	77 x million ¥	72t
Wood scrap	43,773t	1,036 x million ¥	611t
Total	1,708,029t	14,463 x million ¥	11,490t
reference: All construction waste	1,740,480t	-	12,454t
Percentages of major wastes	92%		92%

Characteristics of the construction industry include the following.

- Wood scrap & mixed waste have large impact on treatment costs compared to emissions.
- Concrete remnants & asphalt concrete remnants are easily recycled, and, the impact on CO_2 emissions and the cost are small compared to the emissions.

3. Evaluation

- CO_2 emission caused by waste disposal in general is equivalent to over 5% of 25k tons, the CO_2 emissions from the construction work. (FY2017: 4%)
- Waste disposal cost accounts for 1.2% of value of construction work. (slightly increased from FY2017: 1.1%)

4. R&D investment on addressing environmental issues

- R&D investment for addressing environmental issues in fiscal 2018 amounted to 3,900 million yen.

Calculation method

【Quantity】

- All quantity data of waste manifests are aggregated at Kajima's environmental information system.

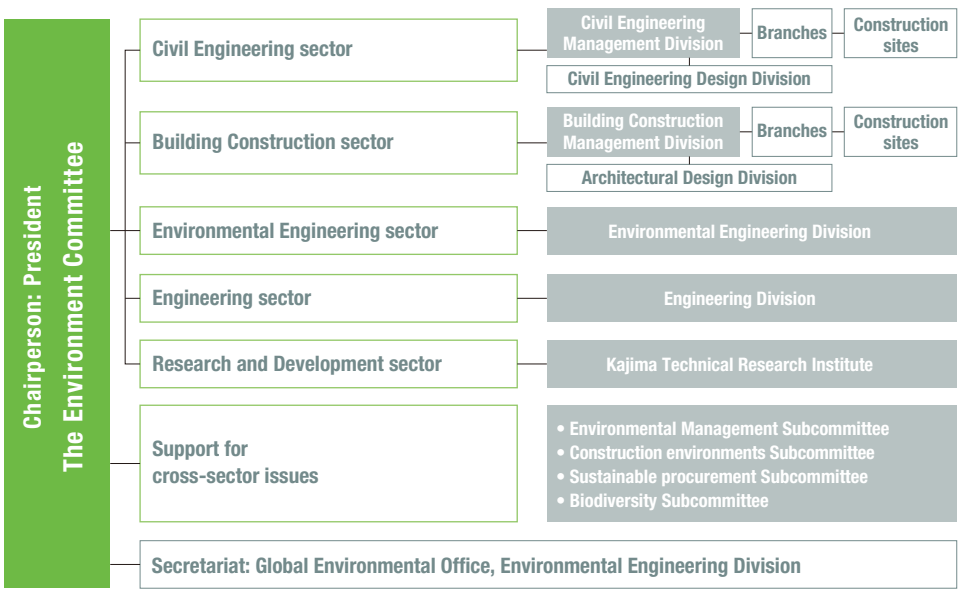
【Cost】

- The processing unit price of each project was aggregated and set the average unit cost for each branch by-item.

【CO_2 emission】

- In the Kanto area, waste disposal sites are selected for each item, then CO_2 emissions per treatment volume are calculated based on processing costs, energy consumption, maintenance / expendable items and facility construction costs.
- As for managed waste disposal sites, CO_2 emissions are estimated based on the existing survey literatures.
- The boundary is set to intermediary processing facilities and disposal sites which are first delivered from construction sites. Subsequent facilities are excluded.
- Project sites outside of Japan are excluded since applicable standards and treatment methods of construction waste vary widely from country to country.

Environmental Management System



Kajima operates environmental management systems (EMS) that are compliant with ISO 14001. The Environment Committee is headed by the President and implements initiatives in each of five sectors: civil engineering, building construction, environmental engineering, engineering, and research and development.

Four subcommittees address environmental management, construction environments, sustainable procurement, and biodiversity as cross-sector issues.

Environmental initiatives for domestic Group companies are primarily focused on construction-related companies, due to their high environmental impact.

Environmental Management System Certification

MSA
MSA-ES-24
Accredited by a Member of the International Accreditation Forum Multilateral Recognition Arrangement for Environmental Management System
MS
JAB
CM024

Certificate

KAJIMA CORPORATION

1-3-1 Motoakasaka, Minato-ku, Tokyo 107-8388, Japan

This is to certify that the environmental management system of the above organization meets the requirements of the applicable standard in the following areas:

Certified management system:

Design, construction, technical research & development and engineering relative to civil engineering structures, buildings and related facilities.

Related organization(s) included in the certification:

As per Appendix of the following number:

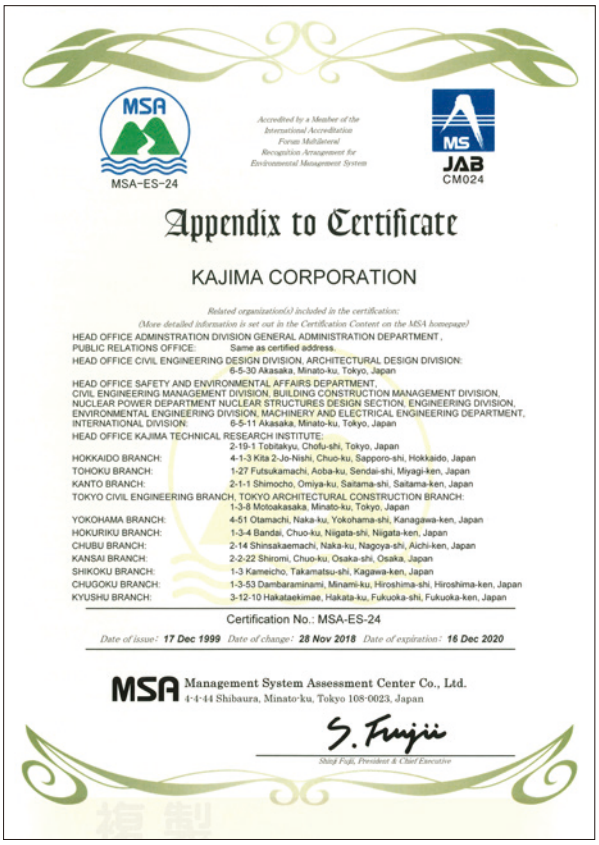
JIS Q 14001:2015 (ISO 14001:2015)

Certification No.: MSA-ES-24

Date of issue: 17 Dec 1999 Date of change: 28 Nov 2018 Date of expiration: 16 Dec 2020

MSA Management System Assessment Center Co., Ltd.
4-4-44 Shibaura, Minato-ku, Tokyo 108-0023, Japan

S. Fujii
Shinji Fujii, President & Chief Executive



MSA
MSA-ES-24
Accredited by a Member of the International Accreditation Forum Multilateral Recognition Arrangement for Environmental Management System
MS
JAB
CM024

Appendix to Certificate

KAJIMA CORPORATION

Related organization(s) included in the certification:
(More detailed information is set out in the Certification Content on the MSA homepage)

HEAD OFFICE ADMINSTRATION DIVISION GENERAL ADMINISTRATION DEPARTMENT,
PUBLIC RELATIONS OFFICE: Same as certified address.
HEAD OFFICE CIVIL ENGINEERING DESIGN DIVISION, ARCHITECTURAL DESIGN DIVISION: 6-5-30 Akasaka, Minato-ku, Tokyo, Japan
HEAD OFFICE SAFETY AND ENVIRONMENTAL AFFAIRS DEPARTMENT, CIVIL ENGINEERING MANAGEMENT DIVISION, BUILDING CONSTRUCTION MANAGEMENT DIVISION, NUCLEAR POWER DEPARTMENT NUCLEAR STRUCTURES DESIGN SECTION, ENGINEERING DIVISION, ENVIRONMENTAL ENGINEERING DIVISION, MACHINERY AND ELECTRICAL ENGINEERING DEPARTMENT, INTERNATIONAL DIVISION: 6-5-11 Akasaka, Minato-ku, Tokyo, Japan
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Independent Verification Report

JQA

No.1811003636

Independent Verification Report

To: Kajima Corporation

1. Objective and Scope

Japan Quality Assurance Organization (hereafter "JQA") was engaged by Kajima Corporation. (hereafter "the Company") to provide an independent verification on" Kajima Corporation - Calculation Results for FY2018* environmental performance data, revised July 8, 2019" (hereafter "the Report"). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding greenhouse gas (hereafter "GHG") emissions; energy use (incl. data converted into energy equivalents); clean water use; waste emissions; emissions of the 13 specified chemical substances under Chemical Substances Control Law; and NOx and SOx emissions in the Report was correctly measured and calculated, in accordance with the "Kajima Corporation - Calculation rule for environmental performance data" (hereafter "the Rule"). The purpose of the verification is to evaluate the Report objectively and to enhance the credibility of the Report. *The fiscal year 2018 of the Company ended on March 31, 2019.

2. Procedures Performed

JQA conducted verification in accordance with "ISO 14064-3" for GHG emissions for Scope 1, 2 and 3 and energy use (incl. data converted into energy equivalents), and with "ISAE3000" for clean water use; waste emissions; emissions of the 13 specified chemical substances under Chemical Substances Control Law; and NOx and SOx emissions, respectively. The scope of this verification assignment covers Scope 1, 2 and 3 (category: 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12 and 13) as GHG emissions; energy use (incl. data converted into energy equivalents); clean water use; waste emissions; emissions of the 13 specified chemical substances under Chemical Substances Control Law; and NOx and SOx emissions. The verification was conducted to a limited level of assurance and quantitative materiality was set at 5 percent each of the total emissions and total amount of energy use and clean water use in the Report. The organizational boundaries of this verification covers office-sites of 73 domestic bases and 5 international offices, and on-site for construction and civil engineering sites in Kajima Corporation.

Our verification procedures included:

- Visiting the Company's head office to perform validation to check the Rule and conduct verification. Verifying to check monitoring and calculation system; calculation scenario; and cross-check activity data against evidence.
- Conducting verification by sampling methods with activity amount data from each sites, to evaluate accuracy of calculated results for GHG emissions (Scope 1 and 2), energy use (incl. data converted into energy equivalents); clean water use; waste emissions.
- Sampling sites were 3 office sites, 3 out of 31 construction sites (3 out of 29 for clean water) and 3 out of 50 civil engineering sites (3 out of 35 or clean water), and total construction and civil engineering sites were selected by the Company.

3. Conclusion

Based on the procedures described above, nothing has come to our attention that caused us to believe that the statement of the information regarding the Company's FY2018 GHG emissions (Scope 1, 2 and 3); energy use (incl. data converted into energy equivalents); clean water use; waste emissions; emissions of the 13 specified chemical substances under Chemical Substances Control Law; and NOx and SOx emissions in the Report is not materially correct, or has not been prepared in accordance with the Rule.

4. Consideration

The Company was responsible for preparing the Report, and JQA's responsibility was to conduct verification of GHG emissions (Scope 1, 2 and 3); energy use (incl. data converted into energy equivalents); clean water use; waste emissions; emissions of the 13 specified chemical substances under Chemical Substances Control Law; and NOx and SOx emissions in the Report only. There is no conflict of interest between the Company and JQA.

Sumio Asada, Board Director
For and on behalf of Japan Quality Assurance Organization
1-25, Kandasudacho, Chiyoda-ku, Tokyo, Japan
July 25, 2019