

GCCA Key Performance Indicators

The Taiheiyō Cement Group's key performance indicators (KPIs) for FY2023 have been subjected to independent limited assurance by KPMG AZSA Sustainability Co., Ltd.

● FY2023 Key Performance Indicators (KPI)*1 *2

CO ₂ and climate protection (CO ₂ emissions and energy consumption)		FY2021	FY2022	FY2023
Number of facilities using the GCCA "The Cement CO ₂ and Energy Protocol" guidelines for emissions inventory		17	17	16*3
Ratio of facilities using the GCCA "The Cement CO ₂ and Energy Protocol" guidelines for emissions inventory (%)		100	100	100
Total CO ₂ emissions (thousand t)	Scope 1 emissions*4	24,029	23,679	20,065
	Gross emissions*5	22,672	22,525	19,017
	Net emissions*6	21,832	21,629	17,997
CO ₂ emissions per tonne of cementitious product*7 (kg-CO ₂ /t-cementitious)	Specific gross emissions	701	703	698
	Specific net emissions	675	675	661
Emissions from electricity purchased (thousand t) (Scope 2 emissions)		855	983	868
Indirect emissions other than Scope 1 and 2 (emissions of other companies related to the activities of the calculation entity) (thousand t) (Scope 3 emissions)*8		1,769	1,639	1,766
Category 1 (Purchased goods and services)*9		752	635	893*10
Category 3 (fuel- and energy-related activities not included in Scope 1 and 2)*11		1,017	1,004	873
Specific heat consumption for clinker production (MJ/t-clinker)		3,321	3,291	3,375
Alternative fuel rate: ratio of alternative fuels used by kilns (%)		12.2	13.3	17.6
Biomass fuel rate: ratio of biomass fuel used by kilns (%)		2.0	2.0	2.3
Clinker/cement (equivalent) factor: ratio of the total clinker consumption and cement produced, calculated according to the GCCA Cement CO ₂ and Energy Protocol guidelines		82.4	83.0	83.0

Emissions monitoring and reporting		FY2021	FY2022	FY2023
Percentage of clinker produced by kilns covered by a monitoring system, either continuous or discontinuous, for the main and other pollutants (%)		100	100	100
Percentage of clinker produced by kilns which have adopted continuous measurement for the main pollutants (%)	NOx*12	97.7	97.6	97.5
	SOx*12	96.4	96.2	95.7
	Dust	100	100	100
Total emissions (t)	NOx	34,758	34,330*12	32,425
	SOx	1,139	1,091*12	930
	Dust	544	439*12	423
Specific emissions (g/t-clinker)	NOx	1,282	1,277*12	1,434
	SOx	42	41*12	41
	Dust	20	16*12	19

Water		FY2021	FY2022	FY2023
Withdrawal (thousand m ³)	Fresh water	27,192	26,341	24,649
	Seawater	146,232	146,894	145,476
Discharge (thousand m ³)	Fresh water	13,447	13,246	12,792
	Seawater	146,368	147,062	145,639

Health and Safety		FY2021	FY2022	FY2023
Fatalities				
Number of fatalities for directly employed personnel		0	0	0
Fatality rate per 10,000 directly employed personnel		0	0	0
Number of fatalities for indirectly employed personnel (contractors and subcontractors)		0	0	1
Number of fatalities involving third parties (not employed)		0	0	0
Lost-time injuries				
Number of lost-time injuries for directly employed personnel		15	15	23
Injury frequency rate of directly employed personnel (per million working hours)		1.27	1.33	2.13
Number of lost-time injuries for indirectly employed personnel (contractors and subcontractors)		18	19	12

*1 CO₂ and climate protection, emissions monitoring and reporting, and water for FY2023 are in accordance with "GCCA Sustainability Guidelines for the monitoring and reporting of CO₂ emissions from cement manufacturing Ver. 0.1", "GCCA Sustainability Guidelines for the monitoring and reporting of emissions from cement manufacturing Ver. 0.1", "GCCA Sustainability Guidelines for co-processing fuels and raw materials in cement manufacturing Ver. 0.1" and "GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing Ver. 0.1".

*2 Health and safety for FY2023 is in accordance with "GCCA Sustainability Guidelines for the monitoring and reporting of safety in cement manufacturing Ver. 1.0". We have aggregated data from the cement businesses of Taiheiyō Cement and 15 domestic and overseas group companies, and from the construction materials, aggregates and ready-mixed concrete businesses of 46 companies out of the affiliated companies that are considered to be business sites required to submit accident reports under our health and safety management regulations.

*3 Plants that ceased operations during the period are excluded from the current period's totals in accordance with GCCA guidelines.

*4 CO₂ emissions that are not included in the items for disclosure mandated by the GCCA but are derived from raw materials and fuels in the cement manufacturing process (including from on-site power generation) and fall under Scope 1.

*5 CO₂ emissions derived from raw materials and fuels in the cement manufacturing process (excluding CO₂ emissions generated from on-site power generation).

*6 CO₂ emissions derived from raw materials and fuels in the cement manufacturing process (excluding CO₂ emissions generated from alternative fuels and on-site power generation).

*7 Cementitious product: Sum total of clinker and admixtures

*8 For Scope 3, we refer to the "Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain (Ver. 3.2)", Ministry of the Environment and "For Calculating Supply Chain Greenhouse Gas Emissions (FY2021: IDEAv2, FY2022 onward: IDEAv3.2)".

*9 Calculated by multiplying the input volume (physical data) of raw materials purchased by the business site subject to the data collection of environmental performance in the GCCA KPI (hereinafter referred to as "business site") from outside the business site by the emission intensity of each raw material.

*10 Emissions increased due to the switch from in-house production of clinker to external purchasing due to the expansion construction at Taiheiyō Cement Philippines, Inc.

*11 Calculated by multiplying the amount of electricity, fuel, etc. procured by the business site by each specific emissions unit.

*12 Calculations were reviewed and revised retroactively.

GCCA Independent Assurance Report

Independent Assurance Report

To the President and Representative Director of Taiheiyō Cement Corporation

We were engaged by Taiheiyō Cement Corporation (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators (the "Indicators") included under the following headings in the GCCA Key Performance Indicators section of its Taiheiyō Cement Report 2023 (the "Report") for the fiscal year ended March 31, 2023.

- CO₂ and climate protection (CO₂ emissions, energy consumption)¹
- Emissions monitoring and reporting¹
- Water¹
- Health and safety²

¹ Periodic accounting is based on the fiscal year 2022 for domestic plants and the calendar year 2022 for overseas plants.
² Periodic accounting is based on the calendar year 2022 for domestic and overseas plants.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting the following four plants out of a total of 16 plants of the Taiheiyō Cement Group, selected on the basis of a risk analysis. (Scopes 1 and 2 CO₂ emissions covered by these four plants correspond to 40% * of the combined total of the Group's Scopes 1 and 2 CO₂ emissions.)

* Based on the amount of absolute gross CO₂ for the fiscal year 2022 for domestic plants and the calendar year 2022 for overseas plants.

Overseas plants	Domestic plants
- Nghi Son Cement Corporation	- Taiheiyō Cement Corporation: Oita Plant
	- Myojoyo Cement Co., Ltd.
	- DC Co., Ltd.

- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

Our Independence and Quality Management

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Management 1, we design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

/s/ Kazuhiko Saito

Kazuhiko Saito, Partner, Representative Director

KPMG AZSA Sustainability Co., Ltd.

Tokyo, Japan

November 29, 2023

Notes to the Reader of Independent Assurance Report:

This is a copy of the Independent Assurance Report and the original copies are kept separately by the Company and KPMG AZSA Sustainability Co., Ltd.