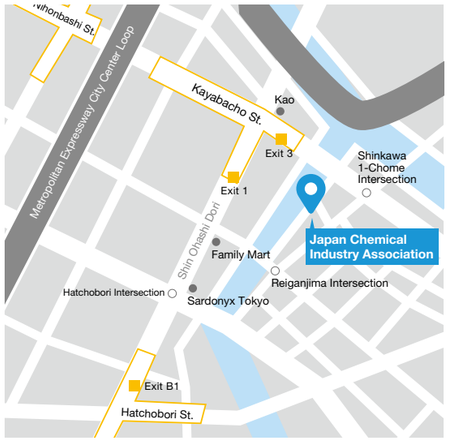

Access Information

Kayabacho St. (Tokyo Metro Hibiya Line, Tozai Line)
Approximately 3 minutes on foot from Exit 1 or Exit 3
Hatchobori St. (JR Keiyo Line)
Approximately 8 minutes on foot from Exit B1

Contact

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International Affairs Department
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Department of Business/ Economic Information
TEL 03-3297-2559
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Labor Department
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FAX 03-3297-2604

Dream Chemistry 21 Committee
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Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

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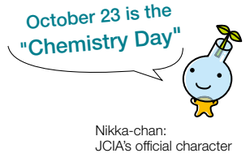
https://www.nikkakyo.org/

ANNUAL REPORT 2025



Nikka-chan:
JCIA's official character

ANNUAL REPORT 2025

Reference Materials

This pamphlet serves as a supplement to the JCIA Annual Report to introduce various data and initiatives relating to the activities of JCIA. It is intended to be read together with JCIA Annual Report 2025.

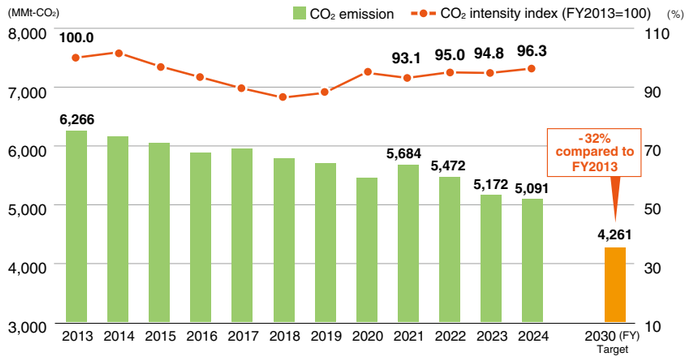
Published February 2026

Japan Chemical Industry Association

CONTENTS

1-1 Environmental Protection (Prevention of Global Warming)

CO_2 emissions and intensity index



Data is reviewed annually.

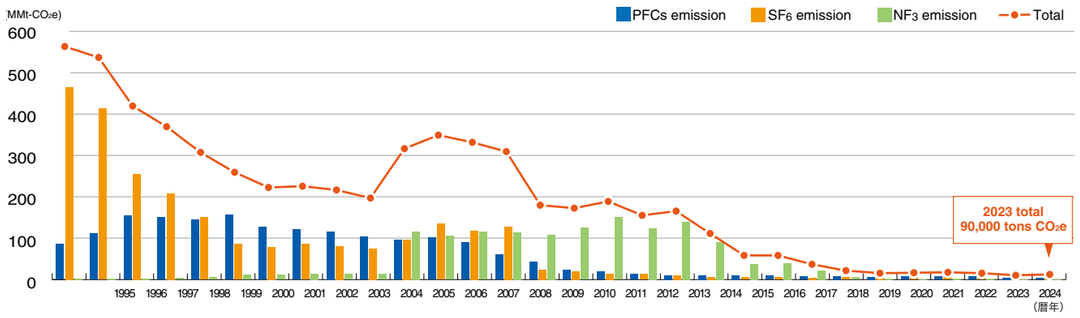
Changes in CO_2 Emissions

The CO_2 reduction target for FY2030 is a 32% reduction compared to FY2013 (benchmark year). A 11,750,000-metric ton (18.8%) reduction in FY2024 compared to FY2013 and 810,000-ton (1.6%) reduction compared to FY2023 has been achieved. In addition, the progress rate toward the FY2030 reduction target was 58.6% in 2024. The CO_2 emission intensity index in FY2024 is 3.7 points higher than that of FY2013 but 1.5 points lower than that of FY2023.

Emissions of Greenhouse Gases, Alternative Fluorocarbons(PFCs) and Other Gases(SF_6, NF_3)

We have been working to reduce emissions of the three greenhouse gases (PFCs, SF_6, and NF_3) during our production processes, and the amount of emissions (converted to CO_2) of the three gases in FY2024 was approximately 90,000 metric tons. From FY2021 onward, the global warming coefficients are based on the IPCC Fifth Report (AR5).

Trends of PFCs, SF_6, and NF_3 emissions during manufacturing processes



1-2 Environmental Protection (Industrial Waste Reduction)

Voluntary Action Plan for Establishing a Sound Material-Cycle Society for FY2021 and Beyond

Since FY2016, JCIA has been working to achieve the target of reducing the final disposal amount by about 70% in FY2020 compared to FY2000*1 in accordance with the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society, and we have been making best efforts to achieve said target. On the other hand, the recycling rate of industrial waste has already progressed close to 100%. Because some kinds of wastes are difficult to recycle, as a result, the recycling rate has remained almost flat since FY2010. It has also been pointed out that further reduction of the final disposal amounts may run counter to the realization of a low-carbon society, for example, by increasing energy consumption. Even in this context, Keidanren will promote proactive efforts to reduce the final disposal amounts of industrial waste, that is, the most representative indicator for industry in the formation of a Sound Material-Cycle Society, by setting mid-term reduction targets for the chemical industry sector, guided by the principle of "not increasing the amount of final disposal from the current level."

Therefore, JCIA has set two five-year targets from FY2020 to FY2025:

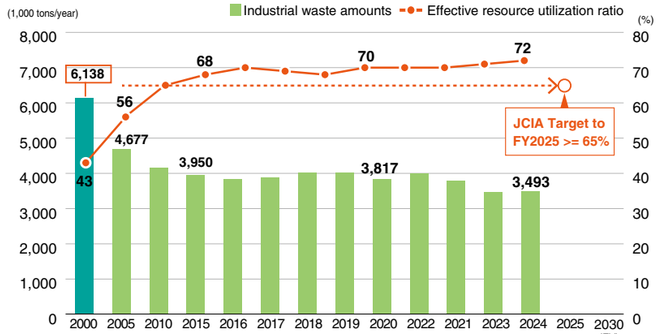
- ▶ Reduce final landfill amount of industrial waste to 170,000 tons/year or less; and
- ▶ Maintain the recycling rate at 65% or higher,

and continue activities with the policy of maintaining current levels, committing to further reduction efforts.

*1 Final disposal amount reduction rate (vs. FY2000):

$$\frac{\text{FY2000 final disposal amount} - \text{FY2020 final disposal amount}}{\text{FY2000 final disposal amount}} \fallingdotseq 70\%$$

Industrial Waste Amount and Effective Resource Utilization Ratio



Data is reviewed annually.

Industrial Waste Amount and Material Recycling Rate*2

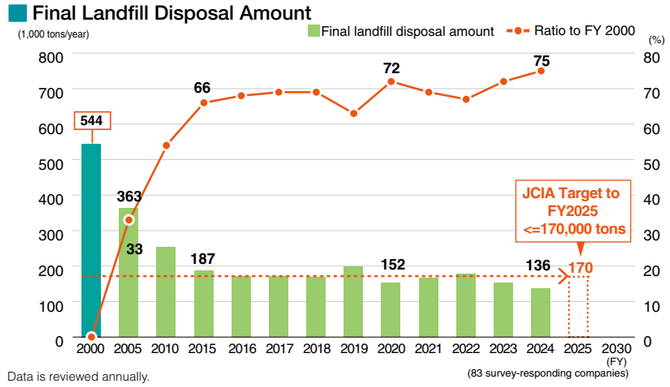
The Industrial waste amounts in FY2024 was 3,493,000 metric tons, down 43% from the base year of FY2000. While it was also increased by 26,000 metric tons compared to the FY2023 level. In addition to reducing emissions, we are also making positive efforts to encourage sorting and reuse.

The effective utilization rate of resources including heat recovery was raised to 72% in FY2024 by not only strengthening recycling by thoroughly sorting materials, but also by proactively switching from simple incineration to heat recovery for waste that is difficult to recycle. As a result, JCIA members achieved ahead of schedule a level that exceeds the chemical industry's specific target of "increasing the ratio to 65% or more by FY2025"*2 in the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society.

*2 The target for the chemical industry in the Keidanren Voluntary Action Plan on the Environment (Voluntary goals of JCIA):
"Achieve a material recycling rate of 65% or higher by FY2025."

$$\text{Material Recycling Rate} = \frac{\text{Amount of recycled material}}{\text{Amount of industrial waste}}$$

Final Landfill Disposal Amount



Data is reviewed annually.

	FY2024 results	
	Relative to FY2000	Relative to FY2023
Industrial waste amount	43% decrease	marginal change
Effective resource utilization ratio	29% increase	marginal change
Final disposal by JCIA members	75% decrease	12% decrease

Final Landfill Disposal Amount

The final landfill disposal amounts in FY2024 was 136,000 metric tons, which is a decrease of about 17,000 metric tons from FY2023. The reduction rate compared to the base year of FY2000 was 75%, an improvement of 3%. The primary factors contributing to this reduction include continued improvements in the dewatering process for sludge and the enhancement of drying facilities to reduce the water content, as well as the promotion of resource circulation through collaboration with treatment companies, both of which were implemented in FY2024 following the measures taken in FY2023. Furthermore, in FY2024, we reduced the amount of waste sent to final disposal by promoting self-supporting efforts and strengthening cooperation with the recycling industry, and we also achieved the target for the chemical industry (JCIA's voluntary goal) in the Keidanren Voluntary Action Plan for Establishing a Sound Material-Cycle Society (reduce the final landfill amount of industrial waste to 170,000 tons or less by FY2025*3) ahead of schedule. We will strive for reduction by reducing, reusing, recycling, and furthermore, thermal recovery of industrial waste, in order to promote resource circulation.

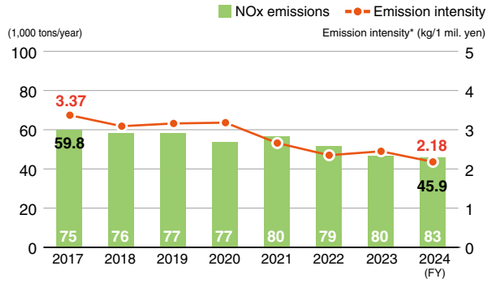
*3 The target for the chemical industry in the Keidanren Voluntary Action Plan on the Environment (Voluntary goals of JCIA):
"Reduce the final landfill amount of industrial waste to 170,000 tons or less by FY2025."

13 Environmental Protection (Prevention of Atmospheric Pollution and Water Pollution)

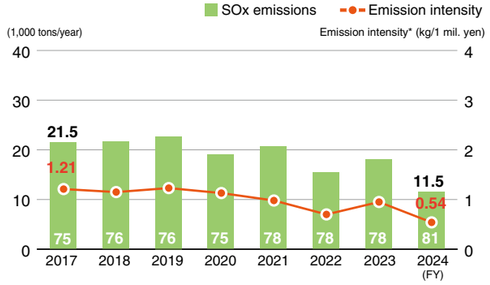
Prevention of Atmospheric Pollution and Water Pollution

JCIA members have significantly reduced their emissions of air and water pollutants compared to around FY2000. Although the rate of emission reductions has slowed in recent years, emission intensity continues to show a downward trend. JCIA members not only comply both with regulatory standards and agreements with municipalities, but also set their own voluntary management standards, which are stricter than government standards, thereby working towards continuous reduction in emissions of target substances.

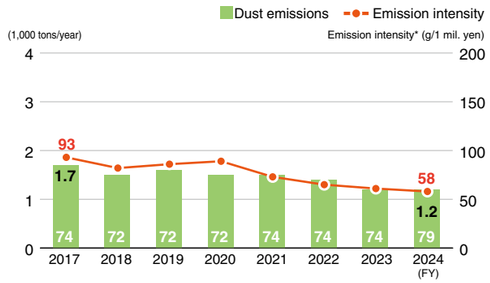
NOx Emissions



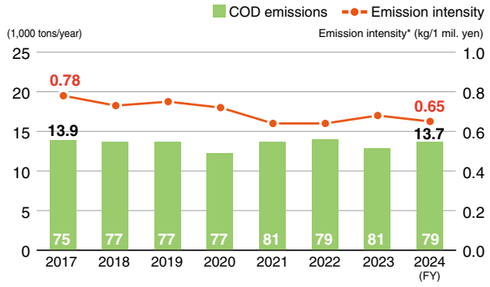
SOx Emissions



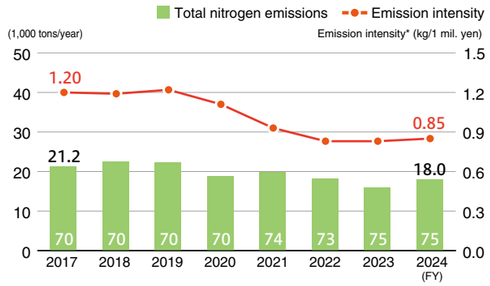
Dust Emissions



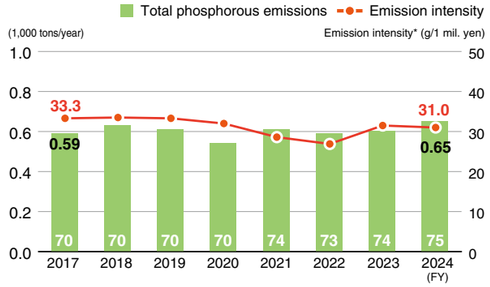
COD Emissions



Total Nitrogen Emissions



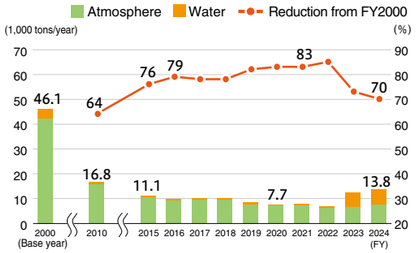
Total Phosphorous Emissions



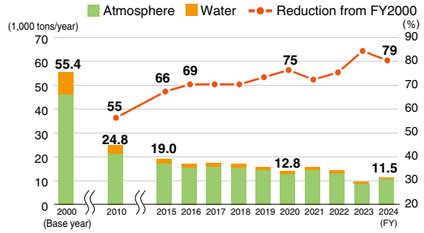
*Emission intensity: Emissions per ¥1 million sales. The figures in the bars indicate the number of companies that submitted data.

14 Environmental Protection (Reduction of Chemical Emissions)

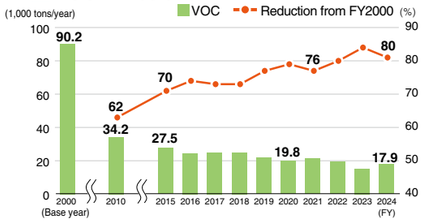
Emissions of PRTR Substances



Emissions of Voluntary Surveyed Substances



VOC Emissions



Emissions of PRTR*1 Substances

JCIA members' emissions of PRTR designated substances in FY2024 was 13,800 metric tons, a reduction of approximately 70% compared to FY2000 and 25% compared to FY2010. JCIA members achieved their voluntary target for FY2025*3, but compared to FY2023, emissions in FY2024 increased by 1,300 tons.

This increase can be primarily attributed to the increased number of designated substances, which was the result of a revision of the law in FY2023*1. The breakdown of emissions was as follows: 54% to the atmosphere, 46% to water bodies, and 0% to soil. Due to the increase in the number of designated substances*1, emissions to water have been higher since FY2023.

*1 PRTR (Pollutant Release and Transfer Register): The PRTR system is designed to identify, collect and disseminate data on the amounts and sources of a variety of toxic chemicals released into the environment or transferred outside of facilities in the form of waste.
PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. Due to a revision of the law in 2023, the number of designated substances (subject to notification) increased from 462 to 515.

Emissions of Voluntary Surveyed Substances(†)

JCIA has independently defined voluntary survey substances(†) and is working to further reduce their emissions. According to the substance emissions voluntarily surveyed by JCIA(†), 11,500 metric tons of such substances were emitted in FY2023, representing a 79% reduction compared to FY2000 and a 54% reduction compared to FY2010. JCIA members have continued to reduce the amount, and they achieved their voluntary target for FY2025*3 ahead of schedule. However, compared to emissions in FY2023, emissions in FY2024 increased by 1,900 tons. The breakdown of emissions was 92% into the atmosphere and 8% into water. No emissions into the soil were reported.

(†) Change in the number of substances voluntarily surveyed by JCIA:
From FY2000 to FY2009: 126 substances
From FY2010 to FY2012: 106 substances
From FY2013 to FY2022: 90 substances
From FY2023 to date: 26 substances (Many of the voluntary survey substances have been moved to the designated substances. In addition, substances whose emissions have been below one ton per year for each of the past three years have been excluded.)

VOC*2 Emissions

JCIA members are making tremendous efforts to reduce VOC emissions, through replacing or reducing the amount of the VOC-containing solvents, installing entrapping equipment, and improving their emitting processes. In FY2024, VOC emissions amounted to 17,900 metric tons, an 80% reduction compared to FY2000 and a 48% reduction compared to FY2010. Thus, JCIA members have achieved significant reductions along with their voluntary target for FY2025*3. In addition, compared to emissions in FY2023, emissions in FY2024 were reduced by 2,600 tons.

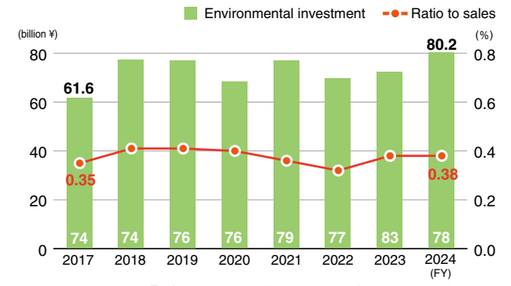
*2 VOC (volatile organic compound): VOC is a collective term for a wide variety of volatile organic compounds that turn into gas and enter the atmosphere, including toluene, xylenes, and ethyl acetate.
*3 FY2025 voluntary target: Reduce PRTR/VOC emissions to no worse than FY2010 levels in FY2020 and beyond. As for highly toxic substances, reduction efforts should be continued on an individual basis.

15 Environmental Protection (Investment in Environmental Measures)

Investment in Environmental Measures

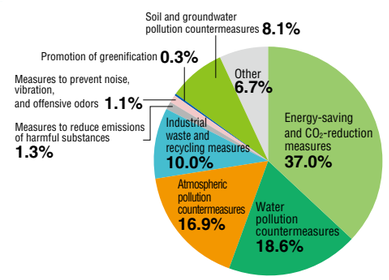
In FY2024, the sum of investments by JCIA members for the installation and maintenance of environmentally friendly equipment, such as energy-saving and CO_2 reducing equipment, and investments in the development of environmentally friendly products and technologies amounted to 80.2 billion yen. This represents investment equal to 0.38% of sales. Investment in environmental protection measures exceeded 80 billion yen in FY2024, with the ratio to sales remaining just under 0.4%. JCIA member companies have steadily improve their environmental-related performances through planned investments in environmental protection measures.

Investment in Environmental Measures



The figures in the bars indicate the number of companies that submitted data.

Breakdown of Environmental Investment in FY2024

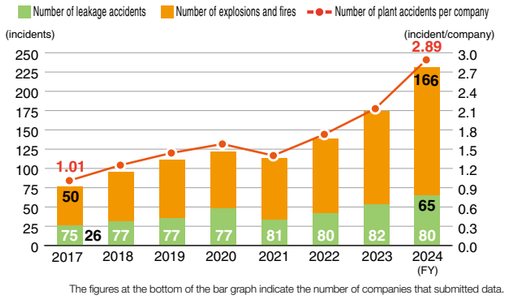


2 Process Safety and Disaster Prevention (Efforts to Prevent Plant Accidents)

Plant Accident Occurrences

In FY2024, both the number of equipment accidents (231) and the number of equipment accidents per member company (2.89) increased significantly for the third consecutive year, reaching record highs. The aging of equipment has become a growing concern.

Accident Occurrences



The figures at the bottom of the bar graph indicate the number of companies that submitted data.

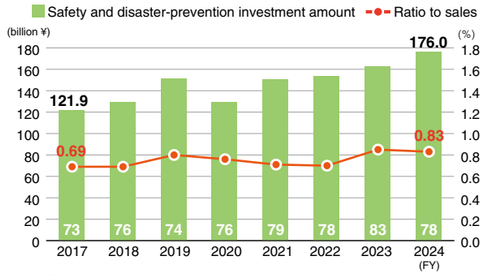
Breakdown of Safety and Disaster-Prevention Investment Costs

The breakdown of investment costs for safety and disaster-preventive maintenance in FY2024 shows that, as in the previous year, nearly 60% of the total was spent on measures to address aging facilities. This indicates that countermeasures for aging facilities have become a major investment issue in recent years.

Investment in Safety, Security, and Disaster-Prevention Measures

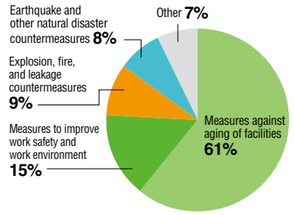
JCIA members' investment in safety and disaster-preventive maintenance for FY2024 was 176 billion yen, an 8.5% increase compared to FY2023, with the ratio of investment to sales standing at 0.83%. Since FY2022, investment in safety and disaster-preventive maintenance has increased significantly, reaching a new record high of 162.2 billion yen in FY2023.

Investment in Safety, Security, and Disaster-Prevention Measures



The figures at the bottom of the bar graph indicate the number of companies that submitted data.

Breakdown of Safety and Disaster-Prevention Investment Costs



3 Industrial Health and Safety

Occurrence of Occupational Accidents

Lost Time Injury Rate (LTIR) Trends

$$\text{LTIR}^{*1} = \frac{\text{Number of lost time injuries}}{\text{Total working hours (per one million hours)}}$$

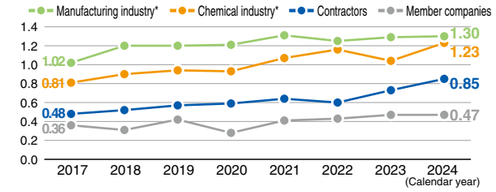
*1 LTIR: Indicator that shows the frequency of lost time injuries

Lost Time Injury Severity Rate* Trends

$$\text{Lost Time Injury Severity Rate}^{*2} = \frac{\text{Number of work days lost}}{\text{Total work hours (per thousand hours)}}$$

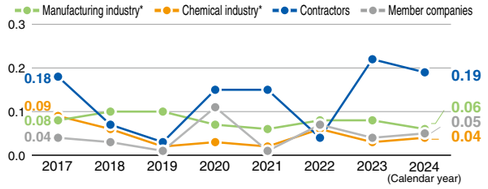
*2 Lost Time Injury Severity Rate: Indicator that shows the severity of occupational accidents

LTIR Trends



In FY2024, the LTIR for JCIA members and their subcontractors were lower than those of the manufacturing and chemical industry sectors. However, since FY2022, the frequency of work-related accidents at subcontractors has shown an upward trend.

Overall Severity Rates



In FY2024, the lost time injury severity rate for member companies remained nearly flat, while the severity rate for subcontractors has stayed high at around 0.2 since FY2023, exceeding the levels seen in the manufacturing and chemical industries.

Number of Fatalities from Occupational Accidents

	2017	2018	2019	2020	2021	2022	2023	2024
Member companies	1	1	0	2	0	3	1	2
Contractors	3	1	0	2	2	0	4	2
Chemical industry*	12	18	12	10	12	19	14	15
Manufacturing industry*	102	183	141	136	137	140	138	142

* Data publicly announced by Ministry of Health, Labour and Welfare (MHLW)

Number of Fatalities from Occupational Accidents

In FY2024, work-related accidents resulted in two fatalities at among member companies and two fatalities among subcontractors.

4 Social (Regional) Dialogue

Implementation of Regional Dialogue Meetings

Location of dialogue meeting held in FY2024	Face-to-face meeting: Yokkaichi, Eastern Yamaguchi, Chiba, Hyogo, Kashima, Toyama and Takaoka Document-based communication: Aichi
Location of dialogue meeting held in FY2023	Face-to-face meetings: Iwakuni and Otake, Oita, Okayama, Sakai and Senboku, and Kawasaki Document-based communication: Western Yamaguchi, Northern Niigata

Implementation of Regional Dialogue Meetings

The JCIA Responsible Care Committee holds meetings once every two years in regions where JCIA member bases are concentrated, primarily chemical complexes, to engage in dialogue with local communities. In FY2024, JCIA conducted six face-to-face dialogues and one document-based communication with regional communities in Japan.

5 Members' Self-Assessment

Details of Self-Assessment Scores (Average scores reported by JCIA members)

Assessed item		Important items						
Code		MS	EP	PS	OSH	DS	CPS	SD
1	Policy	4.6	4.7	4.6	4.7	4.3	4.5	4.4
2	Identification of striking environmental aspects, identification of dangerous and harmful factors, etc.	4.6	4.7	4.7	4.7	3.9	4.6	-
3	Legal and other requirements	4.6	-	-	-	-	-	4.0
4	Objectives	4.7	4.5	4.3	4.4	4.0	4.2	3.8
5	Plans	4.6	4.2	4.6	4.6	4.1	4.3	3.8
6	Organization	4.3	-	-	-	-	-	-
7	Education and training	4.3	4.3	4.4	4.5	4.1	4.2	3.6
8	Communication	4.3	4.1	4.3	4.7	4.1	4.2	4.0
9	Response to emergency situations	4.3	-	4.1	-	3.6	-	-
10	Documentation and document management	4.3	-	-	-	-	-	-
11	Operation management	4.5	4.3	4.6	4.5	3.9	4.0	3.7
12	Inspection and monitoring	4.5	4.6	4.4	4.4	3.8	4.4	3.7
13	Corrections and preventive measures	4.5	4.6	4.6	4.7	4.1	4.6	4.2
14	Collection of information and management of records	4.5	-	-	-	-	-	-
15	Auditing	4.5	-	-	-	-	-	-
16	Revisions by management	4.6	-	-	-	-	-	-
	(Overall assessment)	4.5	4.4	4.5	4.6	4.0	4.3	3.9

Abbreviation	Code
MS	Management system
EP	Environmental protection
PS	Process safety and disaster prevention
OSH	Occupational health and safety
DS	Distribution safety
CPS	Chemicals and product safety
SD	Social dialogue

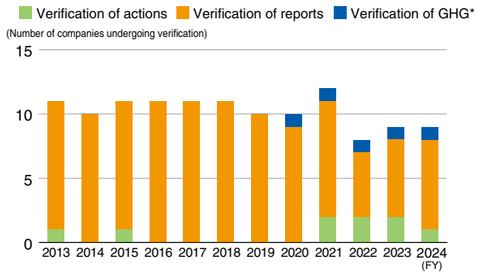
Self-assessment score	Classification
4.5 points or over	Very satisfactory
3.5 to under 4.5 points	Just about satisfactory
2.5 to under 3.5 points	Somewhat unsatisfactory
Under 2.5 points	Unsatisfactory

Details of Self-Assessment Scores (Average scores reported by JCIA members)

On a five-point scale, all key items in the categories of management systems (MS), environmental protection (EP), process safety and disaster prevention (PS), occupational health and safety (OSH), and chemicals and product safety (CPS) scored in the four-point range, indicating that the PDCA cycle is being implemented and managed at a high level. Distribution safety (DS), on the other hand, received relatively lower scores overall, reflecting the fact that many members consider 2 identification of striking environmental aspects, 9 response to emergency situations, 11 operation management and 12 inspection and monitoring to be particularly important issues. In addition, the evaluation score for social dialogue (SD) was low, indicating that there remain areas for improvement, including 4 objectives, 5 plans, 6 organization, 7 education and training, 11 operation management and 12 inspection and monitoring.

6 Responsible Care Verification

Companies Undergone RC Verification



Companies Undergone Responsible Care (RC) Verification

In FY2024, nine JCIA members underwent RC verification (seven companies for report verification, one company for action verification, and one company for GHG verification). The total number of JCIA members certified with RC verification reached 275, comprising 211 companies with report verification, 51 with action verification, and four with GHG verification, respectively.

Verification of reports (Seven companies):
Asahi Kasei Corporation, N.E. Chemcat Corporation,
Sanyo Chemical Industries, Ltd., Shin-Etsu Chemical Co., Ltd.,
Sumitomo Seika Chemicals Company, Ltd.,
Tokyo Ohka Kogyo Co., Ltd., Nippon Soda Co., Ltd.

Verification of actions (One company):Sanyo Chemical Industries Ltd.

GHG verification (One company):Shin-Etsu Chemical Co., Ltd.