

JCIA

ANNUAL REPORT

2021



Japan Chemical Industry Association

Promote Social Implementation of Innovations to Realize Sustainable Society



In 2020, international society experienced chaos and economic stagnation due to the COVID-19 pandemic. However, these trying times have shown the world just how vital the chemical industry's various products and technologies are in enabling healthy, comfortable, and convenient ways of life. Beyond distress owing to the COVID-19 pandemic, international society is making rapid progress toward sustainable society that pursues Carbon Neutrality (CN) and Circular Economy. Inspired by these changes in society, people's hopes for technological innovations made by the chemical industry including Chemical Recycling (CR), Carbon Capture and Utilization (CCU), and Artificial Photosynthesis have been increasing.

For the chemical industry to maintain its healthy growth in the long term and keep providing stable supplies of the products society depends on, the industry has been taking measures to make its products safer and greener (more environment-friendly) on three levels—the manufacturing process, during use (the products themselves), and post-consumer (disposal & recycling)—through efforts that earn the trust of the society.

1 Caring safety and environment during the manufacturing process

The existence of the chemical industry hinges on its efforts to ensure the safety of chemical manufacturing—keeping production facilities as safe and secure as possible—and continuing to minimize the environmental impact of its manufacturing operations. These areas will remain key focal points far into the future.

To help ensure safety and security, we will continue to fortify frameworks for gleaning and sharing valuable lessons, which are learned from various accident information, and best practices. We will also promote initiatives such as smart safety to help companies deal with the aging of equipment and the decrease of experienced on-site employees.

To minimize the industry's impact on the environment, meanwhile, we will continue striving to reach CO₂-reduction targets for 2030, which is set as "Commitment to a Low Carbon Society", as part of the campaign against climate change—an issue that affects the entire globe. Furthermore, aiming to achieve CN, we will promote measures to reduce direct and indirect greenhouse-gas emissions in business activities by realizing carbon cycle of raw materials, and improving manufacturing processes to minimize energy consumption.

2 Caring safety and environment during use of the products themselves

One of the keys to care safety and environment of chemical products themselves is managing risk with an even stronger focus on communication with the supply chain, with chemical management at the center. Another important piece of the effort will be our continuing commitment to promoting Responsible Care® through measures to improve occupational safety and health, enhance distribution safety, and dialogue with society. With regard to a variety of challenges the global community is facing, JCIA will work to forge stronger cross-border ties by taking an active role in international conferences, such as ICCA, and engaging with industry groups abroad. The Japanese chemical industry will also continue to emphasize its contribution to reduction of environmental impact through its value chain, underlining the effectiveness and social values of chemical products.

3 Caring safety and environment of post-consumer products through Disposal & Recycling

Nowadays, society desires to recycle all resources, and recycling of used plastics is an urgent matter. Aiming for social implementation of CR of plastics which can utilize waste plastic without deterioration in quality, JCIA developed "The Chemical Industry's Future Vision on the Chemical Recycling of Plastic Waste" in December 2020. In this Vision, JCIA formulated its target values for 2030 and 2050 regarding CR of plastic waste, image of society where the value of CR is visualized, and its long term strategy to achieve these goals. For social implementation of CR and realize the Future Vision, we must clear many hurdles including making society to recognize environmental benefit of CR. Therefore, it is important for the chemical industry to deal with the plastic waste issue at all stages of the life cycle of plastic products. To enable Japan as a whole to exercise its capabilities to the full, JCIA will cooperate closely with the government and administrative bodies.

The announcement made by the Japanese Government to achieve CN by 2050 is an ambitious target which cannot be achieved if everything goes on the extension of the status quo. However, it is the future vision which must be realized if we want to make this society a sustainable one. The Japanese chemical industry's effort to realize CN is very important for the preservation of the industry's international competitiveness. In this context, JCIA formulated "The Chemical Industry's Stance on Carbon Neutrality" in May 2021, to determine outline of the chemical industry's policies in working on CN. As a solution provider, the chemical industry will continue dealing with the change of the times, and continue providing desired value in a new age. JCIA will disseminate potentials of the chemical industry, and take the lead in social implementation of innovations.

Japan Chemical Industry Association (JCIA)

Chairman 森川 宏平



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About the Japan Chemical Industry Association

The Japan Chemical Industry Association (JCIA) engages in various activities with the aim of contributing to the sustainable development of human society. It does this by providing value to its members and the public, while at the same time monitoring changes in the environment surrounding the Japanese chemical industry and working with government bodies, related organizations, academic associations, and the International Council of Chemical Associations (ICCA).



JCIA at a glance

Name

Japan Chemical Industry Association (JCIA)

Established

April 1948 : JCIA formed as a voluntary association
 June 1991 : Shifted to an incorporated association as a legal entity
 April 2011 : Shifted to a general incorporated association

Mission

JCIA seeks to promote the healthy development of the chemical industry through the research and study of the production, distribution and consumption of materials relating to the chemical industry. JCIA also focuses on the research and study of various issues relating to the technology, labor, environment and chemical safety of the industry, and on planning appropriate measures and actions for the economic prosperity of Japan and the betterment of the national standard of living.

Activities

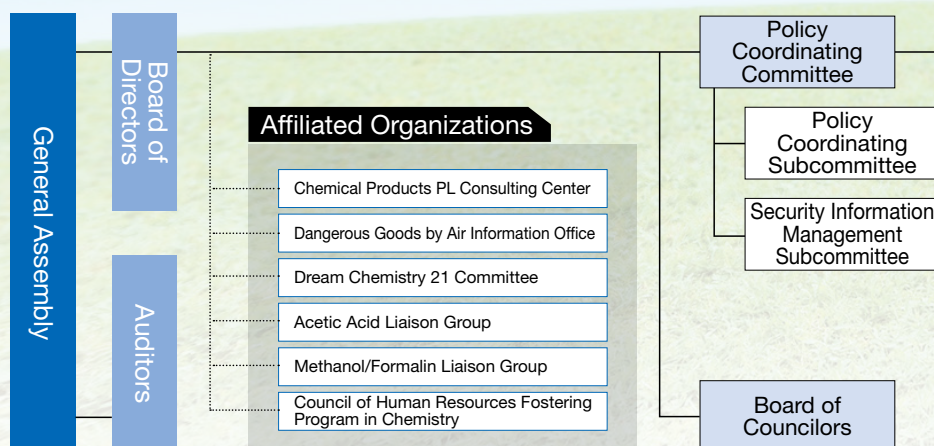
1. Research and study on the production, distribution and consumption of chemical products.
2. Research and study on issues concerning technology, labor, the environment, chemical safety, etc., as well as planning and promoting measures and actions.
3. Commendations for outstanding achievement in new technologies and safety records.
4. Collection and dissemination of information, communication and cooperation with related organizations in Japan and overseas.
5. Public outreach and advocacy activities, workshops and seminars.
6. Other operations in addition to the above that are necessary to achieve JCIA's mission.

Fiscal Year

From April 1 to March 31 of the following year

Organizational Chart of JCIA

The Japan Chemical Industry Association (JCIA) is organized into the General Assembly, the Board of Directors, Auditors, the Policy Coordinating Committee, the Board of Councilors, business-specific committees and the Secretariat. The General Assembly, which is composed of all JCIA member companies and organizations, is the supreme decision-making body. The Assembly resolves important issues related to JCIA management, as well as the business plan, budget and financial statements. The Board of Directors consists of the Directors and Executive Directors elected from among the member companies and resolves issues related to JCIA business and activities.



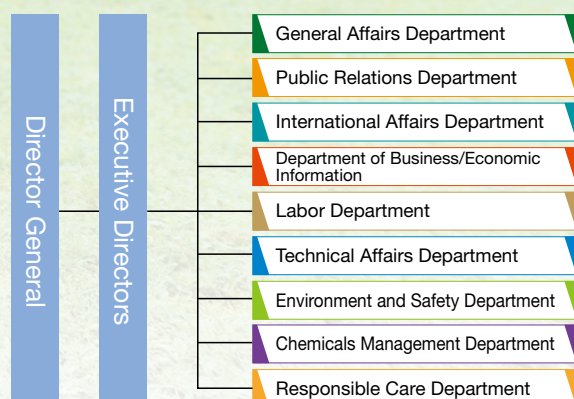
Board members of the Japan Chemical Industry Association (as of July 1, 2021)

Chairman (Representative Director)	MORIKAWA Kohei	Showa Denko K.K.	Representative Director, President
Vice Chairman (Representative Director)	WAGA Masayuki	Mitsubishi Chemical Corporation	President & CEO
Vice Chairman (Representative Director)	IZUMIHARA Masato	Ube Industries, Ltd.	President & CEO, Representative Director
Vice Chairman (Representative Director)	INO Kaoru	DIC Corporation	Representative Director, President and CEO
Vice Chairman (Representative Director)	OGAWA Yoshimi	Daicel Corporation	Representative Director, President & CEO
Director	KOBORI Hideki	Asahi Kasei Corporation	President & Representative Director, Presidential Executive Officer
Director	SHIMAMURA Takuya	AGC Inc.	Member of the Board, Chairman
Director	SAWADA Michitaka	Kao Corporation	Director, Chair
Director	TANAKA Minoru	KANEKA CORPORATION	Representative Director, President
Director	KAWAHASHI Nobuo	JSR Corporation	Representative Director, President and COO
Director	IWATA Keiichi	Sumitomo Chemical Company, Limited	Representative Director and President
Director	KATO Keita	Sekisui Chemical Co., Ltd.	President and Representative Director
Director	TAKAMURA Mikishi	TOAGOSEI CO., LTD.	President and Representative Director
Director	YOKOTA Hiroshi	Tokuyama Corporation	Representative Director, President and Executive Officer
Director	MIYAJI Takeo	NOF CORPORATION	President and Chief Executive Officer
Director	WAKUMOTO Atsuhiko	Nippon Kayaku Co., Ltd.	Representative Director, President
Director	GOTO Yujiro	NIPPON SHOKUBAI CO., LTD.	Member of the Board, President
Director	SUKENO Kenji	FUJIFILM Holdings Corporation	Chairman, Representative Director and Board Chairman
Director	HASHIMOTO Osamu	Mitsui Chemicals, Inc.	President & CEO
Director	FUJII Masashi	MITSUBISHI GAS CHEMICAL COMPANY, INC.	Representative Director, President
Director General	SHINDO Hideo	The Japan Chemical Industry Association	
Executive Director	SHIBUYA Masao	The Japan Chemical Industry Association	
Executive Director	MAKINO Hideaki	The Japan Chemical Industry Association	
Executive Director	SAKATA Shinoi	The Japan Chemical Industry Association	
Executive Director	OZAKI Satoshi	The Japan Chemical Industry Association	
Auditor	YAMAMOTO Manabu	Denka Company Limited	Chairman and Representative Director
Auditor	YAMAMOTO Toshinori	Tosoh Corporation	Representative Director, President

Committees



Organizational Chart of JCIA Secretariat



Toward a Sustainable Society

The chemical industry has contributed to supporting all industries' innovations by providing various functional materials and improving our way of life through the products as a result.

At the same time, in response to past environmental problems, the industry has strived to deliver solutions to a wide range of issues in order to protect the environment, health, and safety across all stages from development and manufacture through consumption and disposal of chemical products.

Following and realizing the Japanese government's Carbon Neutral Declaration by 2050, the chemical industry has worked to accelerate the development of innovations to contribute to solutions to challenges on a global scale, by bringing together the knowledge and technologies that the chemical industry possesses.



Climate change countermeasures: The Chemical Industry's Stance on Carbon Neutrality

In May 2017, JCIA developed and published the "Chemical Industry's VISION on Global Warming Countermeasures". Following the Japanese government's Carbon Neutral Declaration by 2050, JCIA has studied how the chemical industry can contribute to realizing the policy.

Published in May 2021, this stance clarified GHG emission sources in the chemical industry and established a framework for the chemical industry's approaches to carbon neutrality by reducing GHG emission from production processes and by contributing to GHG emissions reduction throughout the entire value chain for products and services.

It also incorporates chemical industry's requests to the Japanese government to complete innovations and their implementation in society.

To realize carbon neutrality, life-cycle initiatives and assessment from the perspective of circular society are vital. In cooperation with value-chain partners, JCIA will contribute to realizing carbon neutrality by establishing systems for reducing GHG emissions including those from the stages of product use and disposal and address issues related to their implementation in society, including establishment of evaluation methods.



<https://www.nikkakyo.org/news/page/8894>



Resources circulation: The Chemical Industry's Future Vision on the Chemical Recycling of Plastic Waste

Expected to establish various resources circulation as early as possible, in November 2019, JCIA established the Working Group on the Chemical Recycling (CR) of plastic wastes. With the participation of chemical companies, companies from related industries, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment, this working group interviewed stakeholders of entire value chain related to plastic wastes, from upstream to downstream, about issues related to implementation of chemical recycling in society.

As a result, the working group members could share with each other the actual situation through now, including the fact that, despite the successful development of a project utilizing technologies for conversion to oil and gas and monomerization technologies, there have been repeated unavoidable withdrawals from the business due to the inability to secure stable supplies of plastic wastes in

The Chemical Industry's Future Vision on the Chemical Recycling of Plastic Waste

Introduction

- ✓ It is the urgent challenge to achieve the efficient and circular use of plastic waste in response to world issues, such as resource limitations due to global increased population, plastic litter and climate change.
- ✓ All kinds of plastic waste are important domestic resources, the effective use of which helps mitigate global warming through carbon circulation, etc., and chemical recycling (CR) is a key to achieving this.
- ✓ The chemical industry plays a central role to foster innovation to solve global issues based on the possibilities provided by chemistry.

Future Vision: Become a coordinator for the entire CR value chain to realize a "True Circular Society"

[Premises] State of society in 2050

- ✓ Shift from linear economy to circular economy
- ✓ Continued use of chemical products as basic materials in post-coronavirus society
- ✓ Progress with breakaway from the use of fossil resources as carbon source

- (1) State of CR technologies
 - ✓ Achievement of "cradle to cradle"
 - ✓ Circular CR into oil, gases and monomers of equal quality

- (2) State of society after the introduction of CR
 - ✓ Expanded recycling of plastic waste CR 2.5 mil. tons/year (1.5 mil. tons/year in 2030)
 - ✓ Acceptance of recycled materials by the public

Toward the achievement of the vision (Full-scale expansion of CR in society)

- (1) Establishment of a feasible business size
 - ✓ Plastic waste collection and treatment system
 - Establishment of a large-scale collection and treatment system
 - Rational and highly efficient collection system
 - Building of a collection & management data platform

- (2) Establishment of CR technologies
 - ✓ Matching of different types of plastic waste to CR technologies
 - ✓ Enhancement of plastic waste sorting & treatment technologies
 - ✓ Building of a support system
 - Public finance & industry-government-academia collaboration, etc.

- (3) Establishment of economic feasibility and market
 - ✓ Nurturing of values among consumers and brand manufacturers
 - ✓ Comparison of LCA results between various recycling methods
 - ✓ Clarification of recycled products through certification systems
 - ✓ Building of a sustainable business model

- (4) Expansion to overseas
 - Deployment as business in emerging market countries
 - Utilization of bilateral talks and international organizations

Build collaboration and social systems to foster social innovations across the value chain

Propose an international certification system, etc. to globally foster CR with economic rationality

volumes large enough to make such a project profitable, as well as various legal barriers related to collection of plastic wastes that had contributed to the withdrawals.

Identifying these as important issues, in December 2020, the working group summarized its findings in the “Chemical Industry’s Future Vision on the Chemical Recycling of Plastic Waste” and proposed solutions to the issue of plastic wastes.

Thanks to their wider-range benefits to various industries and our daily life, including their sanitary performance, it is expected that plastics will continue to be used widely in the future as well. As such, circular use of plastic wastes is a urgent issue. Recognizing chemical recycling to play an important role in building a “True Circular Society”, since it enables effective use of plastic wastes as a valuable domestic resource without degrading the quality of the plastics, the working group has formulated a vision of social implementation of chemical recycling that includes target figures and visualization of value for 2030 and 2050 and a long-term strategy to realize this vision, to fully expand social implementation

of chemical recycling of plastic wastes.

Based on these developments, JCIA plans to begin the following initiatives:

- 1 To get all the collective effort in the chemical industry and to formulate programs to develop chemical recycling-related technologies by the collaboration through industry-government-academia, in order to build and realize a “True Circular Society.”
- 2 To propose an international certification system for contributing to a substantial reduction of plastic waste overseas and for the global deployment of the Japanese chemical industry’s technologies with economic rationality.
- 3 To build a collaboration system that transcends conventional industrial boundaries and to propose reviewing the legal systems that ensure the stable supply of plastic waste in order to generate social innovation across the value chain.

<https://www.nikkakyo.org/news/page/8613>



Responses to the Issue of Marine Plastic Wastes

Follow-up on the Outreach to Asia Training Seminar

The Japan Initiative for Marine Environment (JaIME) is engaging in follow-up activities related to the Outreach to Asia Training Seminar held in February 2020. Specifically, it is providing technical support for a project by member states of the ASEAN Federation of Plastic Industries (AFPI), centered on Thailand, to prepare plastics material flow charts. It also is moving forward with preparations for the second Outreach to Asia Training Seminar planned to be held in Japan in 2022.

Production of an educational DVD

The educational DVD “Plastic and Our Lives II” was produced as a teaching material for use in middle school science classes conforming to Japan’s new educational guidelines. The DVD is based on the concept that plastic is produced from the Earth’s limited resources and has the potential to contribute to a sustainable society by creating new value based on its diverse range of useful functions. Plans call for distributing a two-disc

set consisting of the educational DVD and a CD-ROM containing instructional materials, together with sheets and pellets for use in classroom experiments, to parties involved in science education.

Organization and dissemination of information, and responding to domestic developments

A survey was begun, contracted to an American research firm, on the plastic-related initiatives of foreign governments, NGOs, and other parties, in North America, Europe, and elsewhere around the world.

JaIME also is involved in discussions on policies for responding to domestic issues and offers opinions on behalf of the industry.



SDG initiatives

Overview of Initiatives

In 2018, JCIA established the SDG Subcommittee and began activities to support members’ initiatives toward achievement of the United Nations Sustainable Development Goals (SDGs). Current activities include autonomous activities by working groups with the participation of Subcommittee members and launching a website, as well as publishing case studies on members’ SDG initiatives. We are also collaborating with the Japanese government and associations related to chemicals to disseminate information externally.



Progress and Results of Initiatives

While in-person activities were difficult in 2020 due to COVID-19, JCIA conducted online activities including exchange of information and sharing of case studies among members, exchange of opinions on dissemination of activities to inside the organization, and group activities. We also established a network for exchange the SDG information (opinions) in April 2021, in which JCIA members can participate, based on review of activities over the past three years and revisions to the content of activities.

We launched a website dedicated to the SDGs (<https://www.nikkakyo.org/sdgs>) in December 2018, featuring our vision, SDGs case studies, and other information. In October 2020, we published a collection of SDGs case studies on the activities of member firms (containing 22 case studies), to show stakeholders that the chemical industry is making considerable contributions toward achievement of the SDGs.



Activities as a Member of the International Community

JCIA represents the Japanese chemical industry as a member of the International Council of Chemical Associations (ICCA), through which we participate in a wide range of international conferences. On the subject of energy and climate change in particular, which the ICCA has identified as one of the major themes, we play an important role as the chair in harmonization of the chemical industry's global message on its contributions to responding to climate change. We also participate in international specialized chemical industry conferences and other activities, including programs intended to train human resources and convey expertise on chemicals management to support the progress of the chemical industry in the East Asia and Southeast Asia regions, as we contribute to activities toward realizing a sustainable society as a member of the international community.

ICCA Activities

ICCA was established in 1989 by the chemical industry associations of Japan, the United States, Europe, and Canada. Currently, its full members include chemical industry associations in North America, South America, Europe, Asia, Oceania, and the Persian Gulf States. The total number of member countries and regions is approximately 50, including Associate Members such as China and India. The organization of ICCA consists of Leadership Groups addressing individual issues, whose activities include strategic initiatives and policy recommendations toward solutions in each field. See the ICCA website for more information.

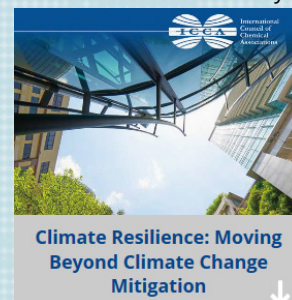
<https://www.icca-chem.org/>



ICCA Energy and Climate Change Leadership Group (E&CC LG) Activities

The E&CC LG proactively communicates information on the roles and achievements of the chemical industry as a solution provider in response to global energy and climate-change issues and strives to earn the international community's understanding.

In 2020, it published the booklet "Climate Resilience: Moving Beyond Climate Change Mitigation"*1, held a Webinar to introduce the activities to ICCA members and had a GHG Calculation Webinar for the Indian Chemical Council and its members. See the materials*2 on the ICCA website for a summary of other activities.



*1, 2: The documents are linked to the QR codes at right. 1

2

ICCA Chemical Policy and Health LG (CP&H LG) Activities

The meetings of the CP&H LG and related task forces (TFs) and other organizations (Joint Capacity Building TF, Advocacy TF, ICCM5 Planning Team, Persistent Organic Pollutants [POPs] Working Group, Global Regulatory Cooperation TF, and Microplastics TF) were all held online this year. The ICCM5 planning team participated in four thematic virtual working groups set up to promote discussions for the post-SAICM due to the postponement of the 5th International Conference on Chemicals (ICCM5), where industry submitted its views and discussions. JCIA also provided opinions through the ICCA and through the Ministry of Economy, Trade and Industry of Japan. The Microplastics TF prepared a white paper on the effects of microplastics on human health and submitted papers on the environmental impact of microplastics, for use in future advocacy activities.

ICCA Responsible Care LG (RCLG) Activities

The RCLG is the organization tasked with promotion of Responsible Care (RC) activities in the ICCA. Normally, it holds regular meetings in person twice a year, in spring and fall, but due to COVID-19, it held web conferences this year. The RCLG is calling for signatures to the RC charters of associations in individual countries, to publicize the chemical industry's RC activities in ICCM5 planned to be held in Germany in 2021. It is also preparing to issue an RC Status Report, part of a series that it publishes irregularly. Since June 2020, it has dispatched a secondee to the China Petroleum and Chemical Industry Federation (CPCIF), which is striving to promote RC activities as it aims to become a full ICCA member. The secondee has provided strong support for the CPCIF's activities. In addition, since the regular meeting in the spring, three working groups have been formed within the RCLG on key performance indicators (KPIs), self-assessment tools, and peer mentoring/expert networks, to reinforce the RCLG's activities. JCIA participates in all of these working groups and supports their activities.



ICCA Organization Chart

ICCA General Assembly

ICCA Board of Directors

CEO Group
(Global Executive Strategy Group)

ICCA Steering Committee

Energy and Climate Change

CEO Sponsor MORIKAWA Kohei (Showa Denko)
Chair YAGISHITA Masamichi (Showa Denko)
Vice-Chair Ignacio Hernandez Bonnett (Shell)

Chemical Policy and Health

CEO Sponsor Jim Fitterling (Dow)
Co-Chair (Europe) Martin Kayser (BASF)
Co-Chair (USA) Chris Wallace (ExxonMobil Chemical)

Responsible Care®

CEO Sponsor Karen McKee (ExxonMobil Chemical)
Chair Baudouin Kelecom (ExxonMobil Chemical)
Vice-Chair YASHIMA Hidehiko (Mitsubishi Chemical)

Communications

CEO Sponsor Chris Jahn (ACC)
Co-Chair (USA) Anne Kolton (ACC)
Co-Chair (Europe) Irene van Luijken (Cefic)

Plastics

CEO Sponsor Bob Patel (LyondellBasell)
Co-Chair Greg Skelton (SABIC)
Co-Chair Mike Witt (Dow)
Co-Chair Jim Seward (LyondellBasell)

Trade policy Network

ICCA ASEAN Regulatory Cooperation Project (ARCP) Activities

The ASEAN Regulatory Cooperation Project is a project under the ICCA Global Regulatory Cooperation framework that aims to promote activities under a risk-based chemicals management approach in member states of the ASEAN Economic Community and apply the ICCA's global policy on regulatory cooperation to chemical regulations being developed in the region. JCIA participates in this project led by the Singapore association as a member of the organization along with the ACC and Cefic. In September 2020, an online seminar on GHS, chemical inventories, and the current state of chemical management in each country was held for participants from governments and industry in ASEAN member states.

APEC Activities (Chemical Dialogue)

Asia-Pacific Economic Cooperation (APEC) is an economic-cooperation framework in which 21 countries and regions in the Asia-Pacific region participate. Aiming for the sustainable growth and prosperity of the Asia-Pacific region, it carries out activities in areas such as liberalization of trade and investment, business facilitation, human security, and economic and technological cooperation. JCIA participates in the Chemical Dialogue, a sub-forum of the APEC Committee on Trade and Investment. The Chemical Dialogue is a forum for representatives of regulators and industry that aims to identify solutions to the challenges faced by the chemical industry in the Asia-Pacific region. Together with promoting trade and improvements in the levels of sound management of chemical substances through supporting expansion of regulatory cooperation and harmonization in the region, it also promotes understanding of the roles of the chemical industry as a provider of innovative solutions for sustainable economic, environmental, and social development. It also serves as a venue for effective cooperation between industry and government to improve chemical product stewardship and safe use. JCIA actively provided opinions and recommendations as a representative of the Japanese chemical industry in the Chemical Dialogue.

AMEICC Activities

The ASEAN Economic Ministers (AEM) and the Minister for Economy, Trade and Industry (METI) Economic and Industrial Cooperation Committee (AMEICC) is a subordinate organization of the AEM-METI that implements practical economic and industrial cooperation in the ASEAN region. The meeting of the Working Group on Chemical Industry and Technical Working Group on The ASEAN-Japan Chemical Safety Database, held online in August 2020, reported on topics including updated information on regulations in each country, the state of management of plastic wastes, and ARCP activities.

Participation in OECD Conferences

JCIA participated in various conferences held by the Organisation for Economic Co-operation and Development (OECD) (Chemicals and Biotechnology Committee, Working Party of National Coordinators of the Test Guidelines Programme, Working Party on Manufactured Nanomaterials, Working Party on Hazard Assessment, Working Party on Exposure Assessment, Working Party on Risk Management, and Extended Advisory Group on Molecular Screening and Toxicogenomics) as a member of the Business and Industry Advisory Committee (BIAC), an advisory body to the OECD representing the private sector. In doing so, we gathered and communicated useful information for members as well as expressing their views.

Activity Report: Responsible Care (RC) Committee

Responsible Care Department

MESSAGE

Committee Chairman, FUKUDA Nobuo

(Representative Director of the Board, Managing Executive Officer, Mitsubishi Chemical Corporation)

Contributing to the continuous improvement of RC activities and the realization of a sustainable society

Based on our goal of "contributing to the realization of a sustainable society," we will strive to further raise awareness of RC activities and strengthen the presence of the chemical industry through continuous improvement of our RC activities and deployment of open activities. In Japan, we will respond to the changing environment of the chemical industry through proceeding with enhanced activities that reflect the views of members. Around the world, in addition to supporting the RC activities of member companies' business establishments overseas and supporting the activities of Japan-affiliated firms in Asia, we also will strive to broaden the base of RC activities through proactive participation in the RC activities of Japanese firms. To continue RC activities with an emphasis on communication even amid the COVID-19 pandemic, we will focus on holding online events, both in Japan and around the world.



FOCUS

RC Regional Dialogues

Dialogues on the results of RC activities are held regularly with residents of the areas near plants in 15 regions at present, as part of stakeholder dialogue activities. In FY2020, these were planned to be held in the nine regions of Yokkaichi, Yamaguchi-Higashi, Okayama, Chiba, Osaka, Kashima, Hyogo, Aichi, and Niigata-Kita, but due to COVID-19, the dialogues planned for Yamaguchi-Higashi, Chiba, Hyogo, and Aichi were held in documentary form and those in the other areas were postponed.

While this was the first time the dialogues were held in documentary form for each of these regions, efforts were made to ensure that these dialogues would constitute more than simple distribution of documents describing the results of RC activities. For example, together with efforts to prepare readable and easily understandable materials, the companies provided thorough answers and explanations in response to questions from residents about everyday corporate activities. Through these and other means, the documentary format proved capable of ensuring the same degree of dialogue as an ordinary in-person event.

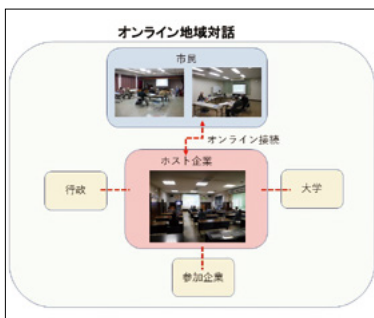
In addition to the 15 regions noted above, in numerous other cases regular dialogues with residents are conducted on topics related to RC by individual companies or jointly by small numbers of companies located in the vicinity of each other. In one of these cases, in the Ube region, the first online regional dialogue was held while implementing thorough measures to stop the spread of COVID-19. Residents, companies, government officials, and other stakeholders participated online in this dialogue, which was based in a meeting room of the company that organized it. Thanks to the efforts of the organizing company, the coordinators, and other participants, it proved an opportunity for meaningful dialogue just like a standard offline dialogue.

RC Activity Report Meeting

JCIA holds annual RC Activity Report Meetings in which anybody may take part, to let the general public know about the outstanding RC activities of members. Since it was difficult to hold these meetings in-person in FY2020 due to COVID-19, it was held as the RC Award Lecture in hybrid form as a new experiment on October 19, with only the secretariat and some committee members participating in person in a JCIA meeting room while others participated online. Following a presentation by the Yodogawa Plant of Daikin Industries, Ltd., winner of the JCIA RC Grand Prix Award in FY2019, on the topic "Promoting Machinery Safety through the Participation of All Employees, with a Focus on Systems and People," companies that won the RC Jury's Special Award and RC Outstanding Awards presented on outstanding RC activities that can serve as models for other companies to refer to, in areas such as security and accident prevention, occupational health and safety, environmental protection, and promotion of sustainability. Efforts made in the management of this event included setting a fixed time limit of 30 minutes for each presenter and proceeding according to schedule even if a presentation ended early, instead of moving up the time of the next presentation. Questions were also collected in advance to give presenters time to prepare their answers. As a result, about 170 people participated in this meeting, a higher number than in the typical year, and results of a follow-up survey were generally positive. Many people from provincial areas and factories who normally found it difficult to take part in RC Activity Report Meetings were able to join in this meeting, and numerous requests were received to continue to offer the meeting in online as well as offline form in future years as well.



Documents distributed to residents

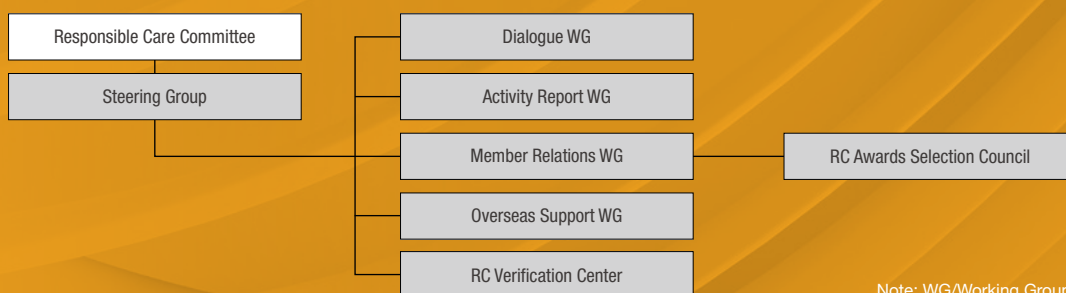


A schematic diagram of an online regional dialogue



Activity Outline

The purposes of the RC Committee are to support member's RC activities, to help improve further society's trust in members and in the chemical industry, and to contribute to the sustainable progress of the chemical industry and of society. Toward this target, the Committee focuses its efforts on supporting the continuation of RC activities and tackling the important tasks of stimulation and expansion of the range of these activities.

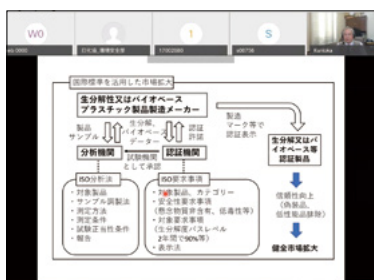


Note: WG/Working Group

TOPICS

TOPIC 1 RC Consumer Dialogues

We hold consumer dialogues meeting annually in both the Tokyo and Osaka areas, as opportunities for frank exchange of opinions between consumer organizations and chemical companies. In FY2020, these were held online in both regions (on November 10 in Tokyo and November 25 in Osaka) in response to COVID-19. The theme chosen for the dialogue was plastic wastes, a topic in which consumers are highly interested. Together with introductions provided by JCIA and Dialogue Working Group member companies to the initiatives of the chemical industry and individual companies, exchange of opinions took place following a presentation by Mr. KUNIOKA Masao of the National Institute of Advanced Industrial Science and Technology (AIST).



of COVID-19, the first lecture meeting for managers and safety training for local staff were held online on February 25, 2021. The online format enabled the participation of more people than initially planned: 11 in the lecture meeting and 37 in the safety training.

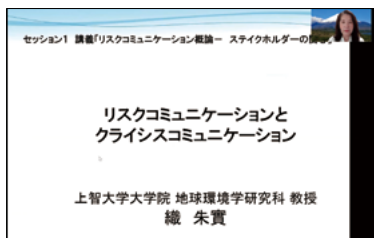
2. Support for human resource development in the chemical industry in Japan and ASEAN

In response to a request for cooperation from the Ministry of Economy, Trade and Industry of Japan through the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS), based on the FY2019 Plan, the AMEICC Working Group on Chemical Industry conducted lectures on the topics of occupational safety and security and accident prevention for line managers at manufacturing plants in three ASEAN member countries (Vietnam, Laos, and Malaysia) in November and December 2020. Due to COVID-19, a two-day program was held for each country online, with 41 participants from Vietnam, 27 from Laos, and 28 from Malaysia.



TOPIC 2 Risk Communication Training

Annual Risk Communication Training is held for practical learning about dialogue with various stakeholders, which is highly important to RC activities. In FY2020, due to COVID-19, a half-day online training session was held on September 24 instead of the usual overnight group training program. The 24 participants completed on-demand courses in advance, and on the day of the training, they listened to a lecture by the instructor and then split into groups for activities such as discussing assigned themes and presenting their findings, helping them to improve their own communication abilities.



TOPIC 4 RC Verification Activities

RC activities are the basis of the activities of chemical companies. While protecting this foundation, each company engages in corporate activities by taking elements of the SDGs and ESG in order to achieve sustainable growth over the long term, and publishes the results to society through integrated reports and sustainability reports. JCIA carries out verification activities from a RC perspective to increase the quality and reliability of these reports. During FY2020, online verification was adopted as well, and reports were verified for nine member companies. As a result, the cumulative total number of reviews completed since the verification activity began has reached 237 reviews.

TOPIC 3 Overseas Support Activities

1. Overseas support activities in Malaysia

Due to the difficulty of holding these activities on site as a result

Activity Report: Environment and Safety Committee

Environment and Safety Department



MESSAGE

Committee Chairman, KAWASE Masatsugu
(Lead Executive Officer, Asahi Kasei Corporation)

Safety and environmental considerations during manufacture of chemical products are the top priority

The activities of the Environment and Safety Committee are based on the Principles of JCIA regarding the Environment, Health and Safety with the advanced perspective: "Efforts securing safety and conserving the environment create new value." Specifically, companies are promoting efforts to raise safety and environmental considerations at three stages : the products itself, at the time of manufacture and after use. Furthermore, through ascertaining related information from domestic and international sources and sharing it with members, providing opinions to government, collaborating with related organizations, and promoting autonomous activities by members, we contribute to the development of a sustainable society through safe and stable manufacturing of chemical products.

FOCUS

Safety and Accident-Prevention Initiatives

Prevention of safety accidents is the most important issue of the JCIA as well as prevention of occupational accidents. Based on the document "Promotion of Measures for the Prevention of Disasters in Petrochemical Complexes (Requests)," issued by the Ministry of Economy, Trade and Industry of Japan, we have added the new document "Safety and Accident-Prevention Guidelines (Expanded Edition-3)" to the three Safety and Accident-Prevention Guidelines published through now, to put into practice the lessons from examples of past accidents at member companies. We are also working to enhance training activities for safety and accident prevention, through means such as supplying educational DVDs that describe examples of accidents in easily understandable ways for site training programs and other users. Furthermore, we also participate in the Public-Private Council for Safety Measures in the Manufacturing Industry and cooperate with other organizations to provide educational materials to help prevent accidents.

Workplace-Accident Prevention Initiatives

JCIA's workplace-accident prevention initiatives are based on cooperative efforts to promote the government measures such as the 13th five-year industrial accident prevention plan and sharing timely and important information among member companies.

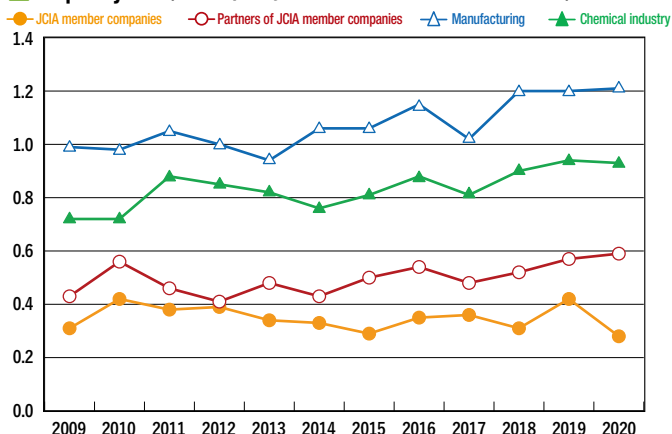
JCIA participates in study meetings held by Japan's Ministry of Health, Labour and Welfare to prepare for the next round of amendments to Japan's Industrial Safety and Health Act. Together with sharing information on related developments in the Occupational Health and Safety Subcommittee, we also collect and report on the views of member

companies, as the opinions of the chemical industry, cooperating with government toward regulation that is effective and reasonable from the standpoint of industry. We also participate in the Public-Private Council for Safety Measures in the Manufacturing Industry, in which our recent activities have included development of methods for identifying the sources of occupational dangers and studying society's assessment of industrial safety.

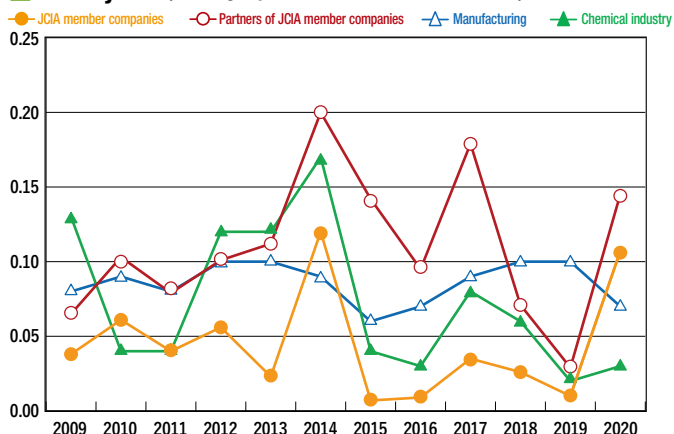
Environmental Protection Initiatives

As initiatives toward thorough compliance with environmental laws and regulations, we collect the latest information concerning matters such as amendments to laws and regulations and share this information with members in monthly Environmental Subcommittee meetings, as well as collecting the opinions of the chemical industry and reporting them to government, related organizations, and others. Environmental protection initiatives of member companies steadily reflect new tasks required as a result of amendments to laws and regulations. In addition, as an autonomous effort to reduce the risks posed by chemical substances to the environment, we are promoting efforts to reduce emissions of volatile organic compounds (VOCs) identified by JCIA independently in addition to those for which notification is required under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act). We also have set autonomous targets for wastes and are promoting resource recycling through means such as reducing the volume of landfill waste disposal and encouraging recycling, as well as disclosing the results of these efforts publicly.

Frequency rate (The frequency of occurrence of industrial accidents.)



Severity rate (Working days lost due to workmen's accident.)



Activity Outline

The subcommittees of the Environment and Safety Committee meet regularly with members to share and study information on matters such as domestic and international trends related to various issues and offer the opinions of the chemical industry to government and relevant organizations. Our health and safety initiatives include publication of a booklet of lessons learned from accidents to help prevent recurrence, lecture meetings, awards programs, safety discussions held jointly with related organizations, and revision of our own independent programs. Our environmental activities promote proper compliance with environmental laws and regulations along with voluntary activities by companies to reduce wastes and emissions of volatile organic compounds (VOCs).



Note: WG/Working Group

TOPICS

TOPIC 1 Autonomous VOC Reductions

Our autonomous reduction target for VOCs in FY2020, which include substances subject to the PRTR Act and those selected by JCIA, is 50% reduction from the FY2000 level and no deterioration from the FY2010 level, as well as efforts to reduce individual highly harmful substances. FY2019 results show that this target has been reached, with a 76% reduction. Based on the results achieved through now, the future goal has been approved of maintaining the FY2020 target.

TOPIC 2 Reducing, Reusing, and Recycling (3R) Industrial Wastes

We participate in the Japan Business Federation (Keidanren) Voluntary Action Plan for Establishing a Sound Material-Cycle Society, with an FY2020 industry target of reducing the percentage of wastes subject to final landfill disposal by 70% compared to the FY2000 level and achieving a recycling rate of 65%. FY2019 results show that the rate of landfill disposal was reduced by 64% and the recycling rate was 69%. In light of considerations such as societal and economic conditions and future trends in resource recycling, a target for the future of keeping the final disposal volume to no more than 170,000 tons and achieving a recycling rate of at least 65% in FY2025 has been approved by the Environmental Subcommittee, the Environment and Safety Committee, and the Board of Directors.

TOPIC 3 Training Program on Safety Management in Transport of Hazardous Materials

Due to COVID-19, this training program normally held in Tokyo and Osaka in November of each year was held online through streaming on demand over the period of December 1-5, 2020. The program featured explanations provided by experts in six lectures on "International Regulations Related to Transport of Hazardous Materials," "Regulations on Air Transport of Hazardous Materials," "Sea Transport of Hazardous Materials," "Road Transport of Hazardous Materials and Yellow Cards," "Testing Methods and Categories Based on UN Recommendations," and "Roles of and Precautions for Shippers."



TOPIC 4 Lecture on Preventing Tsunami Disasters

Together with the Petroleum Association of Japan and the Japan Petrochemical Industry Association, each year we hold a lecture on preventing tsunami disasters, to mark World Tsunami Awareness Day (November 5). In 2020, due to COVID-19, this lecture was held online. A guest lecturer from the Fire and Disaster Management Agency lectured on the theme of "Countermeasures Against Wind and Water Damage to Facilities Handling Hazardous Materials," and about 270 people participated in the lecture.

TOPIC 5 Industrial Safety Course

Each year, we hold the Tokyo Industrial Safety Course in partnership with the Petroleum Association of Japan and the Japan Petrochemical Industry Association, to promote safety training at companies in the petroleum and chemical industries. Due to COVID-19, however, the FY2020 course (which would have been the seventh year of the course) was cancelled. Four special lectures were held in its place.

TOPIC 6 Support for the activities of the Chemical Protective Glove Research Group

When handling chemical substances, it is important to use chemical protective gloves properly in order to prevent transdermal absorption. It is not an easy task to choose which gloves to wear, since some substances can penetrate the materials of some gloves. Through participation in the nonprofit Chemical Protective Glove Research Group, JCIA continues activities such as collection of information on proper use of chemical protective gloves and sharing it with members.

TOPIC 7 Publication of Best Practices (II)

Information on 140 activities presented in Safety Symposiums by business sites and laboratories that won safety awards during the period FY2013-2019 has been collected in Best Practices (II), published at the end of March 2021. It is hoped that this publication will help to prevent accidents, occupational injuries, and other incidents through readers putting best safety practices to use in safety activities in their own workplaces.





MESSAGE

Committee Chairman, ITO Takanori
(Executive Officer, Sumitomo Chemical Co., Ltd.)

Toward the Firm Establishment of Efficient Chemicals Management as a Business Strategy

The basic policies are to strengthen support for chemicals management in business activities and to further spread and expand voluntary contributions from the industry. We are doing a variety of activities, such as dispatch of information related to chemical management and compliance to the revision of related laws and regulations in Japan and overseas. Regarding legal compliance in Japan, JCIA actively participates in various governmental committees and working groups on behalf of the chemical industry, and offers opinions to relevant authorities. JCIA also aims to establish and disseminate more efficient and sophisticated risk assessment technologies. We will strive to support chemical management that responds to the changing times toward a sustainable society.

FOCUS

Trends in domestic chemicals laws and regulations, and our responses

In addition to swiftly ascertaining trends in domestic regulations on management of chemicals and communicating related information to members, JCIA also collects the opinions of member companies and offers these to regulators. The evaluation system under the amended Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. (Chemical Substances Control Law) that took effect in 2017 calls for checking of new chemical substances produced in small quantities based on their structural similarities to Class I Specified Chemical Substances and Chemical Substances Subject to Monitoring and on quantitative structure-activity relationship (QSAR) estimation. In response, JCIA asked regulators to take steps including clarification of the related judgment criteria and secured publication of the assessment flow for such checking on the Ministry of Economy, Trade and Industry website and related briefings by the National Institute of Technology and Evaluation (NITE).

We also offered opinions to the authorities on the impact on practical operations such as those involving seals and postal mail of increased use of working from home in response to COVID-19, securing measures including deferral of the requirement for seals on documents submitted and extension of deadlines for submitting notices.

We also continue working with regulators on revision of “Chemical Substances Control Law Q&A Notification Guidebook for Personnel in Charge of Law-related Duties,” which is compiled by JCIA, as well as efforts toward ensuring reasonable risk management in risk assessment for existing chemical substances and dialogues with authorities regarding future legal amendments.

We supported efforts by member companies to verify whether or not the chemical substances they handle are subject to the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act) by sharing information on the details of the report of the Chemical Substances Council on revisions to the subject substances, released in August 2020.

We also collected the views of member companies, provided the authorities with information concerning the costs of responding to revisions to subject substances, and submitted opinions on future

amendments to ministerial ordinances, among other activities.

In addition, we swiftly collect and provide information on trends in chemicals regulations to members, including the Industrial Safety and Health Act, the Poisonous and Deleterious Substances Control Act, the Act on Pharmaceuticals and Medical Devices, and the Narcotics and Psychotropics Control Act.

Trends in international chemicals laws and regulations, and our responses

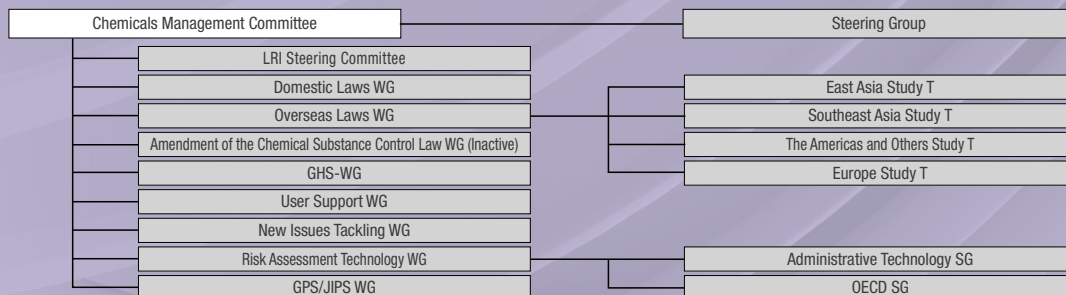
We ascertained information on the latest trends in chemical management regulations around the world and communicated the information to members, as well as holding periodic study meetings on important topics (such as the EU Chemicals Strategy for Sustainability [CSS]). To respond appropriately to regulatory trends around the world, we also collected the views of member companies and offered opinions to regulators as necessary in Europe, China, South Korea, India, Thailand, Vietnam, and other countries. JCIA does not merely offer opinions on its own. We also work together with local industry associations to create and submit position papers and request local industry associations to approach their local authorities. In addition, we consult with the Ministry of Economy, Trade and Industry and ask it to make inquiries with counterparty governments.

GHS trends, and our responses

In addition to providing basic training, in an annual chemical risk forum course, on JIS Z7252: 2019 (Classification of Chemicals Based on Globally Harmonized System of Classification and Labelling of Chemicals [GHS]) and JIS Z7253: 2019 (Hazard Communication of Chemicals Based on GHS-Labeling and Safety Data Sheet [SDS]), both of which are Japanese GHS standards based on the Sixth Edition of UN GHS published May 25, 2019, we also support GHS utilization through means such as responding to inquiries from members. We continue work to prepare a table of corrections and issue an expanded edition of the JCIA's GHS Compliance Guidelines (published by the Japanese Standards Association on June 12, 2019), which were revised in response to the amendments of JIS Z7252 and JIS Z7253.

Activity Outline

The Committee have established close relationships with relevant organizations, including administrative authorities, in order to communicate necessary and useful information to members about domestic and overseas regulatory trends regarding chemical management, and collects opinions and requests of members to submit them to the administrative authorities. As voluntary activities in the industry, the Committee is promoting GPS/JIPS and tackling new issues, as well as supporting research related to risk-assessment techniques for chemical products.

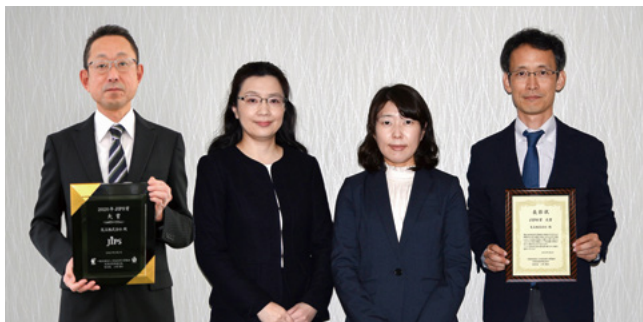


Note: WG/Working Group SG/Subgroup T/Team

TOPICS

TOPIC 1 FY2020 JIPS Awards

JCIA has established the JIPS Awards program to recognize achievements in activities related to the Japan Initiative of Product Stewardship (JIPS). The Fifth JIPS Awards presented this year were reported in a meeting of the Chemicals Management Committee held on March 2, 2021. The Grand Prize went to Kao Corporation, while Tosoh Corporation won an Excellence Award. Kao Corporation delivered a presentation on its GPS/JIPS initiatives.



Grand Prize: Kao Corporation; from left: Mr. Hayashi, Ms. Kameyama, Ms. Koike, and Mr. Yamane



Excellence Award: Tosoh Corporation; Mr. Yokoyama

TOPIC 2 LRI Activities

The Long-range Research Initiative (LRI) is an initiative launched by the International Council of Chemical Associations (ICCA) to study the effects of chemical substances on human health and the environment as a global voluntary initiative underway through cooperation among chemical industry associations in Japan, the United States, and Europe.

In FY2020, JCIA's LRI program adopted two new research projects on the themes of development of testing methods for solutions to emerging issues and research on human exposure. The findings of LRI research are reported at regular annual meetings. The meeting for FY2020 was held online on August 21, 2020. In addition to reports on the results of completed research topics and on progress on ongoing research topics, a symposium was held at the same time to discuss the theme of "the Forefront in Risk Communication."

JCIA has established the JCIA LRI Awards to recognize researchers who have generated outstanding research results. Winners of the Sixth Japanese Society of Toxicology LRI Award and the Fifth Japanese Society for Alternatives to Animal Experiments LRI Award were Prof. SUMI Daigo of the Faculty of Pharmaceutical Sciences at Tokushima Bunri University and Mr. Yamamoto Yusuke of Fujifilm Corporation, respectively.

TOPIC 3 Control of chemical substances in the supply chain

To promote appropriate control of chemical substances in the supply chain, JCIA has provided support for development of an appropriate management infrastructure related to domestic and international promotion of the chemSHERPA, a scheme to facilitate sharing of information on chemical substances contained in products, operated and managed by the Joint Article Management Promotion-consortium (JAMP). We also responded to the Global Automotive Declarable Substance List (GADSL) prepared and maintained by the Global Automotive Stakeholders Group (GASG), whose membership represents automakers, auto parts makers, and chemical companies in Japan, North America, and Europe through means including submittal of opinions on its maintenance and management, from the standpoint of the chemicals industry. Furthermore, we also cooperated in maintenance and preparation of international standards through participation in organizations including the Japan committee and working group for the TC111 international environmental standard on electric and electronic devices, being advanced by the electric and electronics industry, including the Japan Electronics and Information Technology Industries Association (JEITA).

Activity Report: Technical Affairs Committee

Technical Affairs Department



MESSAGE

Committee Chairman, TSUNASHIMA Hiroshi
(Managing Executive Officer, Mitsui Chemicals, Inc.)

Efforts to climate change measures and recycling society

Under “the Commitment to a Low Carbon Society” in which many of the JCIA member companies and associations participate, we set new goals for FY 2030, including the significant reduction in GHG emissions. We have also declared our participation in the Challenge Zero initiative led by Japan Federation of Economic Organizations (Keidanren) to advance our ceaseless efforts. Aiming to realize a recycling society, we not only had a working group that focuses on chemical recycling, a field that the chemical industry can contribute, make public what the chemical industry can do in that field, but also accelerated activities to achieve that society. As the Technical Affairs Committee, we will strive toward achieving these goals by further deepening communication among member companies.

FOCUS

The Result of Commitment to a Low Carbon Society in FY 2019 and the Progress toward New FY 2030 Target Achievement

In March 2019, FY2030 targets were revised, and it was decided to “set and achieve two targets—cutting emissions 6.50 million tons compared to BAU with FY2013 as the base year and 6.79 million tons in absolute terms,” and efforts to do that were launched in FY2020.

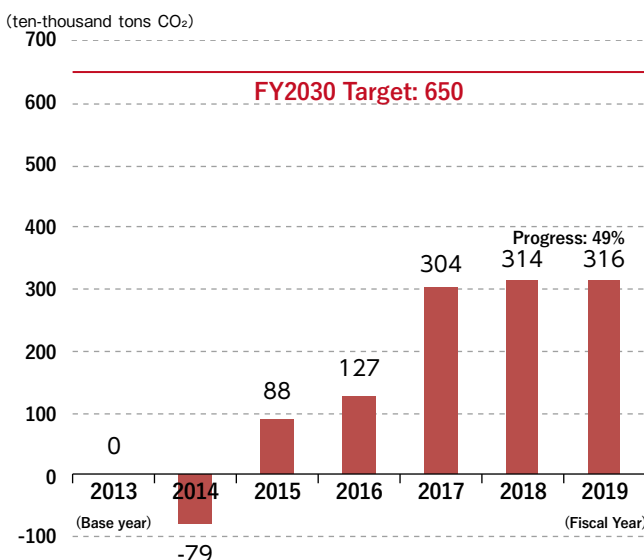
In FY2019, steady progress was made toward achieving the new targets as CO₂ emissions were cut 3.16 million tons compared to BAU (progress: 49%) and 5.94 million tons in absolute terms (progress: 88%). In response to the COVID-19 pandemic, we coordinated with Keidanren and the Ministry of Economy, Trade and Industry (METI) regarding the survey submission deadline for participating companies and were able to collect all survey forms as we normally do. The content of the report was deliberated on and evaluated by Keidanren’s Third-party Evaluation Committee and the Chemicals and Nonferrous Metals Working Group of METI’s Industrial Structure Council and received high

praise. Furthermore, the method for compiling FY2019 results was revised to create a mechanism that encourages greater precision of survey data and independent efforts by participating companies. In particular, the survey was conducted by preparing survey forms for respective participating companies, in which their energy use and CO₂ emissions for previous years were entered in advance. It had the desired benefits.

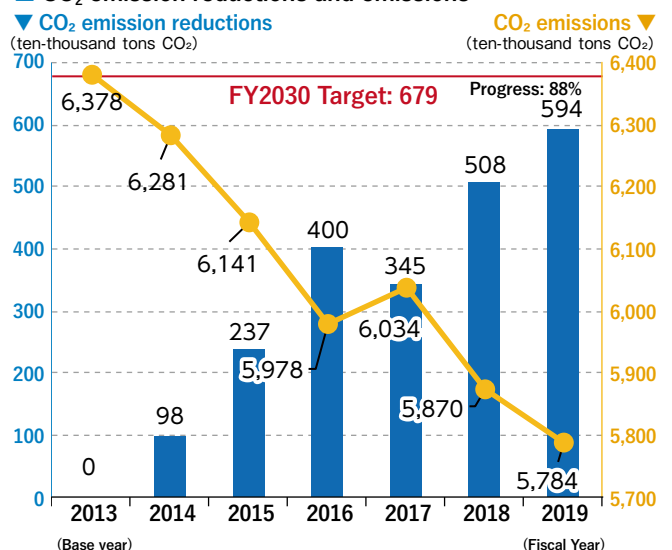
Achieved FY2030 Targets for Three CFC Substitutes

As for actual FY2019 results for three gases (PFCs, SF₆, and NF₃), emissions of NF₃ were reduced dramatically, and the FY2020 targets for percent decline in emissions compared to 1995, the base year, has already been achieved for all three gases. For the third consecutive year, the FY2030 targets for the three gases were reached (PFCs: 98% [2030 target of a 90% or greater reduction], SF₆: 99% [2030 target of a 90% or greater reduction], NF₃: 99% (2030 target of an 85% or greater reduction)).

CO₂ emission reductions compared to BAU



CO₂ emission reductions and emissions



Activity Outline

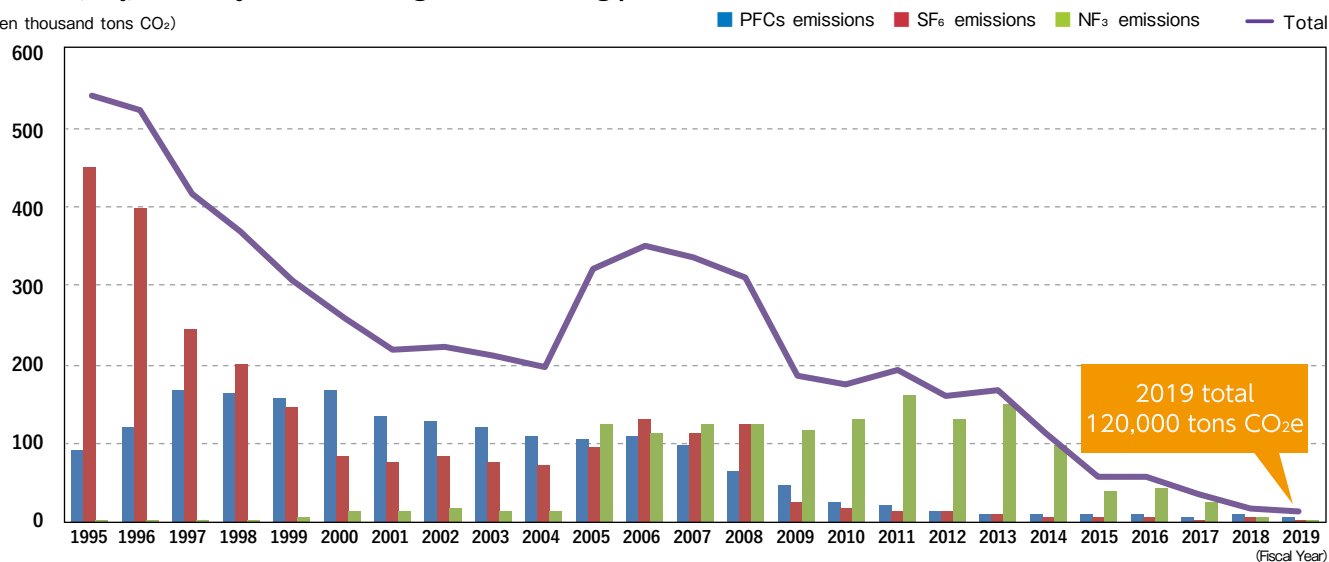
We actively participate in both domestic and overseas activities related to preventing global warming and creating a recycling society, including the “Commitment to a Low Carbon Society”, and work to tackle various issues. In addition to taking the lead in responding to the government’s Carbon Neutral Declaration, spreading the use of cLCA products, and undertaking Energy and Climate Change Leadership Group activities at ICCA, we communicate the fact that the chemical industry is a solution provider in the field of global warming through science and technology promotion activities, such as JCIA Technology Award.



Note: WG/Working Group

PFCs, SF₆, and NF₃ emitted during manufacturing process

(ten thousand tons CO₂e)



TOPICS

TOPIC 1 LCA WG Activities

Of 21 activities using FY2020 evaluation criteria, which were introduced in FY2014, for 12 cLCA activities, the comparable case that assumptions were based on was revised when the evaluation criteria were updated to FY2030, and the impact in FY2030 was calculated.

Furthermore, in regard to life cycle inventory (LCI), JCIA collaborated with the Plastic Waste Management Institute, which is working to update LCI data for petroleum products; established the LCI sub-working group, which will try to update LCI data for chemicals; and shared calculation rules and selected products to work on.

TOPIC 2 Activities of Waste Plastics and Chemicals Recycling WG

JCIA launched a working group under the Technical Affairs Committee for examining “what the chemical industry should do for chemical recycling of waste plastics” (Waste Plastics CR-WG) in November 2019. Working with related industries, the working group held various discussions

and made public “Chemical Industry’s Future Vision on the Chemical Recycling of Plastic Waste” in December 2020 (see p. 5 for details).

After the publication, the WG decided to continue its activities to ensure the stable collection of waste plastics, to establish chemical recycling business and to socially implement the business. For the objectives, the WG started discussion, how to build a cooperation system (equal partnership) throughout the supply chain and how to utilize standardization as a tool to create recycling market. The CR Standardization sub-working group was newly established to develop standards on CR.

TOPIC 3 Examining the Global Warming Long-term Strategy

In response to Japanese Prime Minister Yoshihide Suga’s Carbon Neutral Declaration in 2020, the Global Warming Long-term Strategy Working Group held numerous discussions, compiled the results of those discussions into Chemical Industry’s Stance on Carbon Neutrality, and made it public in May 2021 (see p. 5 for details).



MESSAGE

Committee Chairman, ASADA Koji
(Executive Officer, DIC Corporation)

Gathering Information on Trade Issues and Dealing with Unfair Trade

While there are hopes for free trade and economic partnership agreements, such as the TPP11, Japan-EU EPA, US-Japan Trade Agreement, Japan-UK Comprehensive EPA, and RCEP, there are also various trade-related issues, such as trade friction between the US and China and WTO reforms. Under these conditions, we collaborate with the government and make proposals regarding opinions of the chemical industry related to economic partnership agreements, corrections of unfair trade policies and measures, trade remedy measures and requests for tariff reform. We will also work on realization of a sustainable society and development of the chemical industry through ICCA activities and interaction with business associations in China, South Korea, etc.

Activity Outline

The committee deals with the association's international affairs, including ascertaining trade issues related to the chemical industry, providing information to member companies, getting authorities to reflect the opinions of the domestic chemical industry, strengthening its relationships with the chemical industries of China, South Korea, and other overseas chemical-related organizations through dialogue, and participating in the administration of the ICCA.



FOCUS

Chairman's Video Message Shown at China Petroleum and Chemical International Conference

The Japan-China Chemical Industry Conference, which is held every year by JCIA, JPCA, and the China Petroleum and Chemical Industry Federation, was postponed in FY2020 because of the COVID-19 pandemic, but for the China Petroleum and Chemical International Conference held in September in Ningbo, China, JCIA Chairman Morikawa sent a video message. In the message, he stated, "I hope that Japan and China's Responsible Care activities will improve through close cooperation" and "in regard to the common issue of building a truly sustainable society, which includes reducing plastic waste pollution and responding to climate change, I am confident that cooperation between the Japanese and Chinese chemical industries will make substantial contributions to the sustainable development of the chemical industry not only in Asia but also the world."



meeting between JCIA and the Korea Chemical Industry Council (KOCIC) is held annually in order to share information and opinions regarding the latest trends, such as chemicals management between the two countries. Both Japan and South Korea not only explained their efforts related to measures for realization of carbon neutrality by 2050 and the chemical recycling of waste plastics but also exchanged opinions regarding the future vision of those efforts.

Furthermore, JCIA explained trends in revisions to Japan's Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and safe operation of offices and plants during the pandemic and exchanged opinions.

TOPIC 2

Trade-Related Seminars Held Online

Every year, JCIA invites instructors from Tokyo Customs to hold a seminar on Rules of Origin. For FY2020, the seminar was held online in January 2021 and about 250 people participated. It is important to understand Rules of Origin in order to apply the preferential duties when importing and exporting goods to and from EPA partners. On the day of the seminar, in addition to the explanation of EPAs and Rules of Origin, there were some case studies using chemical products as examples.

An instructor from the Trade Control Department, Trade and Economic Cooperation Bureau of METI was invited to give the online seminar in March 2021. During the seminar, model cases for examining joint application for anti-dumping measures were explained. Mainly for association members, there was also a detailed explanation of various practical issues based on actual application, such as coordination costs among Japanese companies for joint/group application for anti-dumping measures and compliance concerns related to sharing information necessary for the application. On the day of the seminar, about 40 people mainly from association members participated.



TOPICS

TOPIC 1

11th Japan-South Korea Annual Meeting Held Online

In February 2021, the 11th Japan-South Korea Annual Meeting was held online because of the COVID-19 pandemic. This



MESSAGE

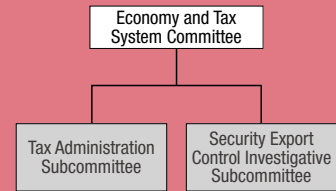
Committee Chairman, KASUYA Toshiro
(Senior Executive Officer, AGC Inc.)

Aiming for New Growth in the Chemical Industry in the Society with Corona/Post Corona

In the chemical industry, corporate earnings have been dramatically impacted by the COVID-19 pandemic. Lifestyle changes have also resulted in substantial changes to workstyles. Furthermore, achieving carbon neutrality by 2050 is an ambitious challenge for the chemical industry. For the new growth, it is necessary to make reforms to various regulations and tax systems related to generating innovation, promoting DX, carbon pricing, and equal footing in international taxation. We will strive to make proposals on various regulations and systems, such as the tax system, and disseminate useful information for operating businesses in order to further expand Japan's chemical industry.

Activity Outline

In addition to loosening various regulations and revising the tax system, other related laws and regulation are being introduced to create a vigorous business cycle and thus further grow Japan's economy. In order to respond to these developments and make it possible for the chemical industry to achieve further growth, we gather and share information on the economy and tax system and we make recommendations and requests for policies. We also implement necessary responses to current issues related to the economy and business.



FOCUS

FY2021 Requests for Revisions to the Tax System

In FY2020, in light of the sudden deterioration in corporate earnings as a result of the COVID-19 pandemic, we have set the following six items as priority issues for policy support to drive a recovery in earning, with the greatest priority being placed on the loss-related proposal: (1) loosening requirements for deducting loss carried forward, (2) expanding tax measures that encourage R&D, (3) introducing tax measures to promote capital investment, (4) reducing the administrative burden of workstyle reforms, (5) fundamentally reviewing tax measures related to combating global warming, and (6) request for permanent tax exemption from gasoline tax and petroleum and coal tax on raw materials used in the production of petrochemical products.

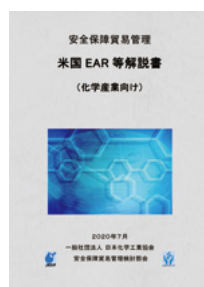
As a result of requests, new tax measures to raise the maximum carryforward of loss, as well as to promote capital investments undertaken to achieve carbon neutrality and implement DX, were introduced although certain conditions were attached. We will continue to request policy support to promote capital investment and R&D, which are fundamental elements of value creation.

TOPICS

TOPIC 1

Compiling a US EAR Explanatory Manual

The Security Export Control Investigative Subcommittee sets annual action plan to develop useful operations tools for security export control staff of member companies. In FY2020, it compiled the US EAR Explanatory Manual, which is in a Q&A format, and posted it on the JCIA member



website. In the future, subcommittee members will compile a Q&A handbook regarding managing technical information.

TOPIC 2

Security Export Control seminar

In partnership with the responsible division at the Ministry of Economy, Trade and Industry, the Security Export Control Investigative Subcommittee holds a seminar on the importance of security export controls, key points to maintaining a voluntary export control system, and penal regulations. In FY2020, under the COVID-19 pandemic, the seminar was held on the Web, jointly with the Kansai Chemical Industry Association. The seminar was targeted to a broader audience, including affiliated companies of members, resulting in a vastly larger number of participants, 293. The seminar won high praise.



TOPIC 3

Response to Global Current Affairs

From the perspective of the sound development of the global chemical industry, we presented JCIA's opinions to Japanese and foreign administrative authorities regarding stricter extraterritorial application of regulations based on China's Export Control Law and U.S. reexport regulations due to the fiercer trade war between the those two countries, moves to expand ESG investment internationally in order to achieve carbon neutrality by 2050, and introducing carbon pricing, including Border Adjustment Mechanism.

Activity Report: Labor Committee

Labor Department



MESSAGE

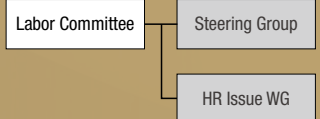
Committee Chairman, MAMIYA Hideki
(Executive Officer, Kao Corporation)

Continuing to Promote Support for Human Resource Development at and Appropriate Information Sharing with Member Companies

In FY2020, during the COVID-19 pandemic, we held the Human Resources & Labor Affairs Staff Development Seminar (offered every other year) a total of eight times after taking all necessary steps to prevent infections, and there were live discussions at the seminar. However, the Training for Chemical Plant Production Site Leaders was provided online. We also continue to gather and disseminate various types of labor information, such as that on wages, bonuses, etc., and regularly hold information sharing meetings with labor organizations. We will continue to promote the sharing of meaningful information and provide human resources development support for member companies.

Activity Outline

We offer support for human resource development that would be difficult for member companies to provide on their own through Human Resources & Labor Affairs Staff Development Seminars, training for production site leaders, and HR Issue working group-driven activities as well as provide opinions to the government regarding labor-related measures and law revisions through Keidanren. We also regularly exchange information with labor union organizations to maintain good relationships.



Note: WG/Working Group

FOCUS

Training for Chemical Plant Production Site Leaders Held Online

Training for chemical plant production site leaders has been offered since FY2016, and in FY2020, the lectures were updated and offered online and distributed via YouTube for the first time. The seminar was held twice in March 2021.

Offered to cultivate production site leaders and strengthen their skills, the training consists of two parts (lecture 1 and lecture 2) and covers security and disaster prevention, occupational health and safety, and risk assessments.

Lecture 1 was provided online via Zoom and included both a lecture and group discussion, so it was possible for participants to study lessons learned from actual accidents, process risk assessments, and best practices related to security and disaster prevention and occupational health and safety.

Lecture 2, which was given by a JCIA instructor, covered the basic approach and methods related to chemical risk assessment and was distributed via YouTube, making it possible for participants to learn at their own pace.

While some participants expressed the opinion that the online training was easier to participate in, others said that for group discussions, it was easier to express their opinions when it was



conducted face to face. After the COVID-19 pandemic is brought under control, the training will be offered in a way that makes it possible for more production site leaders to participate by having both traditional face-to-face training and online training.

TOPIC

8th and Final Human Resources & Labor Affairs Staff Development Seminar Held

The 8th and final FY2020 Human Resources & Labor Affairs Staff Development Seminar was held on March 22, 2021.

The seminar was held face to face after taking steps to prevent novel corona virus infections because the purpose of the seminar is not only for participants to think and learn about human resources and labor affairs functions within management and its future role but also to create a network among staff involved in human resources and labor affairs operations within the chemical industry. Although there was a slight decline in the number of participants for various reasons, including the impact of COVID-19 and personnel transfers, participants from nine companies participated in the final meeting.

At the final meeting, all participants gave a presentation titled "Human Resource Management Strategy That I Think is Necessary for My Company" on issues that their company faces and what could be done to solve the problem from a human resources perspective. Presentations were followed by a lively exchange of opinions. It is hoped that participants will make use of not only the business and management perspectives they acquired through the eight meetings but also their relationship with coworkers that makes a candid expression of opinion possible.



Activity Report: Public Relations Committee

Public Relation Department



MESSAGE

Committee Chairman, TAMADA Hideo
(Senior Managing Executive Officer, Ube Industries, Ltd.)

Aiming to Raise the Presence of the Chemical Industry

While the chemical industry contributes significantly to the improvement of our lives and economic development, it is also important that we take on the challenge of dealing with new issues and getting a broad swath of society to understand its utility in order for the industry to continue to grow.

Working with members, academia, and the media, we will provide various information on the chemical industry and promote understanding of chemistry and the chemical industry within society and strive to further raise the presence of chemistry and the chemical industry by holding chemistry related events for the youth, our future.

Activity Outline

We provide information on the various activities conducted by JCIA related to the environment, health, safety, and human resource development to the general public through mass media, etc. We also work to further raise the presence of the chemical industry by communicating the utility and appeal of chemistry to the youth, our future, through the Dream Chemistry 21 project, which includes “Kids’ Chemistry Experiment Show” and “What? Why? Science Experiment Lab.”

Public Relations Committee

Chemistry Day Promotion WG

Note: WG/Working Group

Responsible Care Committee

Environment and Safety Committee

Chemicals Management Committee

Technical Affairs Committee

International Activities Committee

Economy and Tax System Committee

Labor Department

Public Relation Department

FOCUS

Timely Communication

JCIA holds press conferences and issues press releases regarding issues that the chemical industry faces and solutions to those problems.

In FY2020, the chairman held five press conferences in which he explained business trends in the chemical industry and explained the main activities of JCIA. Furthermore, we released press releases on numerous topics, including support for long-term research on chemicals’ impact on people’s health and the environment, efforts to spread outstanding safety activities, and activities for next-generation human resources.

In particular, regarding the long-term strategy “The Chemical Industry’s Future Vision on the Chemical Recycling of Plastic Waste,” which the chemical industry is implementing to build a sustainable society, we have issued press releases and held press conferences, which have drawn a lot of interest along with the Japanese government’s Carbon Neutral Declaration.



understand manner using graphs, each year and distribute it to not only member companies but also education-related entities, etc. Additionally, we release the JCIA Annual Report, a comprehensive summary of JCIA’s activities, every year to foster understanding of JCIA’s activities.



TOPIC 2

Updating English Website

In November 2020, the English website was updated for the first time in almost five years. Major revisions were made to the content, and creative ways were incorporated to simplify menus and make them easier to use. Through this site, we will communicate information to the world.



TOPIC 3

What? Why? Science Experiment Lab

This science experience lab for elementary school students is held six times a year at the Science Museum in order to instill in children an interest in science. Even though it was necessary to dramatically reduce the number of participating students and hold the lab only three times in FY2020, because of the COVID-19 pandemic, we succeeded in offering the lab to about 80 elementary school students.



TOPICS

TOPIC 1

Communicating Information Through Published Works

We issue Chemical Industry of Japan in Graphs, which explains statistics regarding Japan’s chemical industry in an easy-to-

JCIA's Human Resource Development

The chemical industry supports the development of both society and the economy by providing various materials, and human resource development is extremely important for the industry to continue to grow. Therefore, JCIA implements various human resource development measures for the next generation. Through several initiatives, including holding educational training events to install an interest in chemistry in elementary, junior high, and senior high school students, and providing courses on the chemical industry and offering scholarships to undergraduate and graduate students, we cultivate people who will follow the path of chemistry. For adult members, we also hold seminars and training courses on numerous topics including security and disaster prevention, occupational health and safety, and chemical management.

Chemistry Personnel Cultivation Program (for college students)

Summary:

JCIA promotes the Chemistry Personnel Cultivation Program in order to train young people, who takes an important role as the foundation for strengthening the international competitiveness of and promoting Japan's chemical industry. The program provides information on the human resource needs of the chemical industry to graduate-level chemistry majors throughout Japan and supports doctoral candidates in fields that meet those needs. At present, 32 JCIA member companies participate in the program, and in FY2020, the following activities were undertaken.

Offering Scholarships:

JCIA scholarships of 200,000 yen/month were provided to each of 31 students recommended by the majors, which is under the JCIA program. The scholarship is available for three years, until the end of the doctoral program.

Promoting Exchanges Program Between Universities and JCIA Companies:

The Industry-Academia Exchange Meeting 2020, a venue for exchanges Program with JCIA companies, was held in October. At the meeting, 10 scholarship recipients who are in the second year of their doctoral course, gave presentations on their research and three doctors, who now work at JCIA member companies shared their experience at the companies. Including online participants, 18 member companies and 22 university professors and students participated in the presentation session and a lively Q&A session. All the doctors who spoke at the meeting are former program scholarship recipients and now are employed by companies.

For students who participated in the meeting, it was a good opportunity to learn what is required as doctors in the industry and how to tackle their work.

Supporting Job Search Activities:

JCIA held the online Student-Company Exchange Meeting 2020 in December to support the job search of doctoral students. Participants included 57 doctoral candidates from the graduate-level chemistry faculty JCIA has supported and 21 member companies, and students selected the companies they were interested in and eagerly listened to explanations of responsible staff at the recruiting session.

Supporting Chemical Industry Education:

With the cooperation of member companies, we offer the Chemical Industry Course to some supported majors in order to deepen undergraduate and graduate students' understanding of the chemical industry. Employees working on the frontline of chemical companies serve as instructors, explain the history, present, and future of the chemical industry from a solution provider perspective, and present information on various subjects, including topics companies are currently focusing on and what they personally find appealing about the industry.

In FY2020, the courses were offered at not only Osaka City University and Tohoku University, where the courses were also taught last year, but also Yokohama National University, where the course was taught for the first time this year. All the lectures were conducted online because of the COVID-19 pandemic, but even more students were able to take the course and deepen understanding of the chemical industry. Various comments were received from the students, including "it was an extremely worthwhile time since I was able to gain an understanding of how chemistry contributes to society" and "I thought because I am studying chemistry, I can contribute to Japan's development by being involved in future chemical industry."

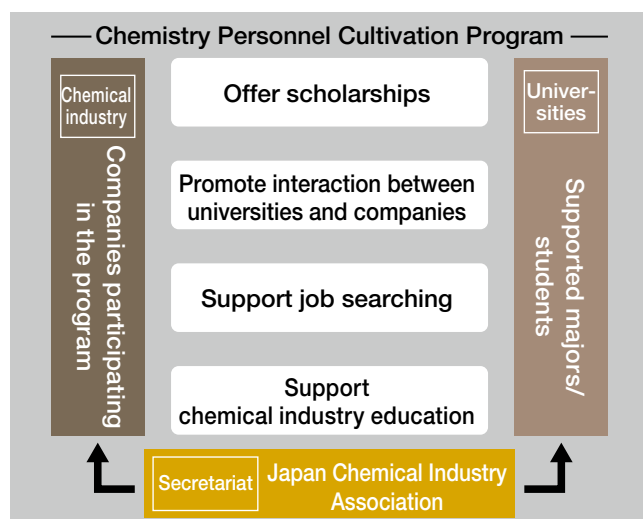
Calling for applications and Screening Supported Major:

In September, there was a call for the 11th applications for support in FY2021. Applications were received from eight majors, which included one new major, and the screening committee met in November and selected six majors to provide support starting in FY2021 (five reselected majors and one new major).

The Chemistry Personnel Cultivation Program has been highly praised by industry, academia, and the government as a pioneering initiative that educates and makes use of people with advanced science



Industry-Academia Exchange Meeting 2020



knowledge. In FY2020, seven scholarship recipients in supported majors completed their doctoral program, and all chose to work in the industry. Of those, six were hired by JCIA member companies. A total of 80 students have received scholarships through the program, and 66 of those, including 36 who were hired by the program member companies, are working in the industry.

Holders of doctorates who meet the human resource needs of the industry and are hired by companies are expected to play an active role because of their valuable skills to support the future development of the chemical industry. Through the Chemistry Personnel Cultivation Program, we will work to further strengthen the partnership between industry and academia and move forward with more extensive support activities.

Dream Chemistry 21 Project (for elementary and junior and senior high school students)

Consisting of JCIA, the Chemical Society of Japan, the Society of Chemical Engineers Japan, and the Japan Association for Chemical Innovation, the Dream Chemistry 21 Committee hold events appropriate for children of all ages every year to cultivate an interest in and understanding of chemistry in them. For elementary school students, there are the “What? Why? Science Experiment Lab” and “Kids’ Chemistry Experiment Show,” in which children conduct experiments and build things, and for junior and senior high school students, there is the Chemistry Grand Prix, in which students compete based on their chemistry skills. In FY2020, some of the events were suspended or reduced in size because of the COVID-19 pandemic, but the Chemistry Grand Prix was held online, and about 2,000 people participated.



Students who do exceedingly well in the Chemistry Grand Prix represent Japan at the International Chemistry Olympiad, a competition that high school students from about 80 countries and regions throughout the world compete in.

Chemical Risk Forum and Risk Assessment Seminar (for adults)

JCIA has operated the Chemical Risk Forum as a training forum for workers who conduct risk assessments of chemicals since 2008. In FY2020, 63 companies participated in the training, which included various activities, such as lectures on risk assessment fundamentals, training on tools necessary to conduct risk assessments, and information on topics such as trends in regulations both in Japan and overseas. Similar to FY2019, applications were accepted for a set number of face-to-face lectures and online lectures, and the online training was held 10 times. In FY2020, the forum was conducted in a special way so that participants who signed up to attend lectures in person could also view them online in order to prevent the spread of COVID-19, and a system was developed to handle the larger number of online participants. For FY2021, taking into consideration the greater demand for online lectures, we not only changed the course content so that participants could freely select how to attend lectures but also offered new courses that can be distributed in-house, which are expected to be widely used for in-house training and similar activities.

Furthermore, a single basic and single practical Risk Assessment Seminar for worker risk assessments required by the Industrial Safety and Health Act were held. It was held jointly with the 5th Chemical Risk Forum, which covers basic knowledge and risk assessment methods necessary to manage chemicals, and the 7th Chemical Forum, which covers an introduction to basic measurement methods and practical risk evaluation methods for composites (totally of 39 participants). Since FY2020, the seminar was made available online for the convenience of participants.

■ Various lectures and seminars for human resources development of JCIA

Name of lecture or seminar	Purpose	Frequency
Security Export Control Seminar	Provide introduction to export of products and manufacturing technologies based on the Foreign Exchange and Foreign Trade Act	Once a year
Improvement Training for Chemical Plant Production Sites Leaders	Develop and improve the skills of front-line supervisors (in particular, security and disaster prevention, occupational health and safety, and risk assessments)	Three times a year
Issue and Spread Guidelines and Best Practice Guide	Develop leaders and experts involved in security, disaster prevention, and occupational health and safety	Not set
Safety Management Class For Transporting Dangerous Goods	Develop experts in divisions involved in transportation of dangerous goods	Twice a year (Tokyo, Osaka)
Chemical Risk Forum	Cultivate practitioners who manage chemicals based on risk (a series of educational seminar held 10 times a year)	May to February the following year (total of 10 times a year)
Issues in International Commerce Seminar	Explain the anti-dumping system, rules of origin, unfair trade practices report, EPA/FTA, and so on	Once or twice a year
Industrial Safety Course	Develop managers who can understand future safety in the oil and chemical industries, and safety experts who have a broad purview (16-part lecture series)	October to February the following year (total of 16 times a year)
Information Security Seminar	Introduce IT security related information	Once or twice a year
Human Resources & Labor Affairs Staff Development Seminar	Cultivate leaders in the HR and labor affairs divisions who are responsible for the next generation of workers (a series of 8 seminars held every second year)	May to February the following year (total of 8 times every other year)
Lecture on the Importance of Standardization	Teach and spread the importance of standardization through lectures that have a different theme every year	Once a year
Risk Assessment Seminar (using BIGDr.Worker)	Learn about risk assessment methods for workers and how to perform risk evaluation that includes compound materials using BIGDr.Worker	Twice a year
Risk Communication Training	Improve communication skills of company lecturers involved in regional dialogue	Once a year

Three JCIA Awards

The 45th JCIA Safety Award

These awards are conferred on chemical plants that have achieved high-level safety records through disaster-preventive maintenance and labor accident prevention activities and are implementing excellent safety initiatives (best practices), which serve as models for the industry. The winners' safety activities are publicized as best practices to be actively utilized by other member companies. From the perspective of continued disaster prevention, a safety symposium is held to discuss the key points in safety activities for sharing the information with member companies.

Award	Award Winner
JCIA Annual Safety Award Grand Prize	Kaneka Corporation, Shiga Manufacturing Site
JCIA Annual Safety Award First Prize	Niigata Showa Co., Ltd.
JCIA Annual Special Safety Award First Prize (Research institutes)	Toagosei Co., Ltd., General Center of Research and Development
JCIA Annual Special Safety Award First Prize (SME establishments)	UNION SHOWA K.K., Yokkaichi Plant

The 53rd JCIA Technology Award

JCIA Technology Awards recognize companies that have contributed to the progress of the chemical industry and economic society through the development and industrialization of excellent chemical technologies in order to promote chemical technologies. JCIA awards the Grand Prize, the Special Technology Prize, and the Environmental Technology Prize, and values their excellent achievement.

Award	Award Winner	Awarded Theme
Grand Prize	Toray Industries, Inc.	Development and commercialization of anti-thrombogenic artificial kidney
Special Technology Prize	DIC Corporation and Taiyo Ink Mfg. Co. Ltd.	Development of new seed film for fabricating wiring on high-frequency PWBs
Environmental Technology Prize	Kao Corporation	Development of ultra-low temperature fixable toner LUNATONE®

The 15th JCIA Responsible Care (RC) Award

These awards, which are conferred on individuals or groups that have contributed to promoting RC activities, are aimed at further motivating and energizing the people involved in RC activities.

Award	Award Winner	Awarded Theme
Grand Prix Award	Mitsui Chemicals, Inc., Plant Operation Technology Training Center	Experience training initiatives at Mitsui Chemicals Plant Operation Technology Training Center
Jury's Special Award	Kao Corporation, SCM Division	Development of efficient evaluation methods and establishment of systems for the Chemical risk assessment
Jury's Special Award	Mitsubishi Gas Chemical Company, Inc., Mizushima Plant, Research and Development Department	Chemical School— hands-on workshops for plant operator to get chemical knowledge and develop safety skills
Outstanding Award	Mitsubishi Chemical Corporation, Mie Plant	Efforts to reduce (chemical) process accidents and Hiyari-Hatto (near misses)
Outstanding Award	Sumika Agro Manufacturing, Ltd.	Efforts for the environmental load reduction at SUMIKA AGRO MANUFACTURING, LTD.
Outstanding Award	Ube Industries, Ltd., Ube Chemical Factory	Continuous Responsible-Care communication under the influence of COVID-19
Award for Effort	Toagosei Co., Ltd., Sakaide Plant, Women Patrol Team	5S patrol from women's perspective
Award for Effort	Tokyo Ohka Kogyo Co., Ltd., Environment, Health and Safety Division	Utilization of Risk Assessment for Prevention Measure against Dangerous Chemicals Handling



MAKI Haruhiko, Managing Executive Officer General Manager, Shiga Manufacturing Site, Kaneka Corporation

I would like to express my deep appreciation for the honor of being awarded the JCIA Annual Safety Award Grand Prize. At our manufacturing site, under the slogan of "every person strictly adhering to the basics," we focus on two factors "fostering a safe climate" and "finding and responding to potential risks" and conduct safety activities that involve all site members, including researchers and members of partner companies. Although we still have a lot to do until we create a truly safe manufacturing site, we will use this award as an incentive to persevere with our routine activities. Go-Anzen-Ni! (=Let's be safe.)



SUGAYA Hiroyuki, Advanced Materials Research Laboratories Research Fellow, Toray Industries, Inc.

Toray is honored to receive this award, which is in recognition of two achievements. The first is for developing an anti-thrombogenic polymer that can limit platelet attachment far better than artificial kidneys employing dialysis. The second is for commercializing that polymer by applying it to artificial kidneys to treat chronic and acute renal failure, improving patients' quality of life and reducing medical professional workloads. We will use this technology to embody our corporate philosophy of contributing to society by creating new value while attaining sustainable growth.



TATSUMI Masahiko, Plant Operation Technology Training Center Director, Mitsui Chemicals, Inc.

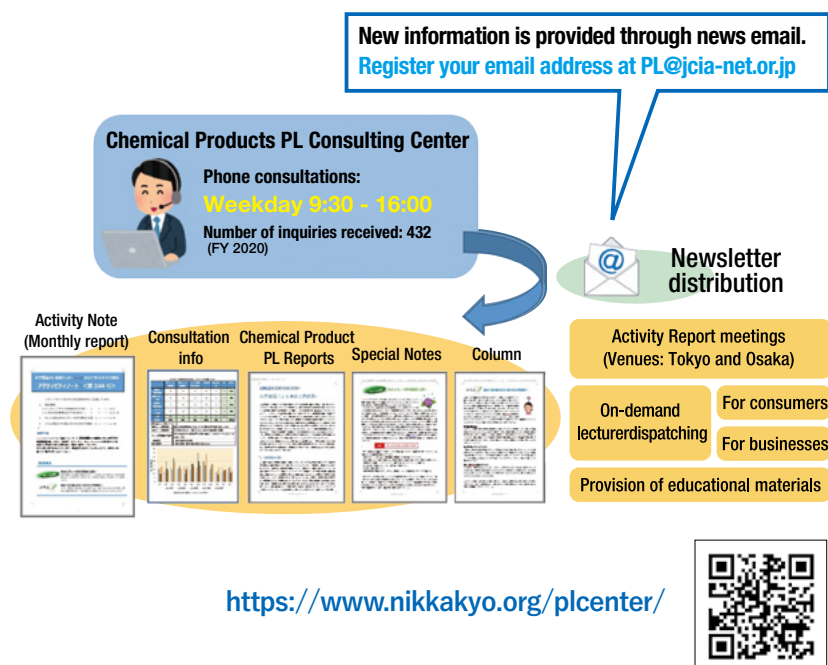
It is a truly an honor to be awarded the RC Grand Prix Award. I would like to express my deep appreciation. Since introducing the training in 2006, the Center has worked to continuously provide a wider range of educational opportunities that included not only traditional training but also remote training at overseas offices during the COVID-19 pandemic, in order to develop personnel skilled at operations and facilities, particularly safety, through hands-on/experience-based training. With this award as encouragement, we will continue to develop human resources who can show strong capabilities on site and respond advanced plant operation.

Introduction to the Chemical Products PL Consulting Center

When the Product Liability (PL) Act was promulgated in 1994, the Chemical Products PL Consulting Center was established as an independent organization within JCIA because of the need to create an out-of-court dispute settlement system that draws on specialized knowledge of each product field. The Center consults on a wide range of issues related to chemical products sought from not only consumers but also businesses and Consumer Affairs Centers nationwide from a professional perspective. The Center also emphasizes providing information that can help prevent chemical product accidents as well as educational activities such as publishing booklets and holding on-demand lectures. In addition to offering on-demand lectures for general consumers and businesses, the Center adjusts the content of the lectures to meet the needs of clients as

much as possible. Information on the Center's activities can be found in the monthly report Activity Note, which is available on its website. In addition to

carrying information on all inquiries and responses, the report includes related information such as Chemical Product PL Report, Special Notes, and Topics.



Information Distribution Services by JCIA

JCIA distributes the following email magazines to members. If you would like to receive an email magazine, please contact the relevant office.

Ankan-Net (Safe Environment Network)

We deliver information that people need to know, such as notifications and communications from each ministry and agency, guidelines regarding environmental safety, and regulatory information to member companies and associations registered for the Ankan-Net (up to two addresses per company/association).

Contact: Environment and Safety Department

RC net

This mail magazine is for member companies of the Responsible Care Committee. It provides information on RC-related events, such as Responsible Care activity report meetings; sponsored events, including informal member get-togethers, and member seminars; and calls for event sign-ups.

Contact: Responsible Care Department

Chemical Standardization Information Net

We provide national and global information on standardization related to chemical industry and notices on seminars by relevant organizations and JCIA. The email magazine is issued twice a month, and the current number of subscribers is approximately 100.

Contact: Technical Affairs Department

Chemical Management Net

We provide the latest information on trends in Japanese and overseas regulations and laws related to chemical management and on seminars provided by JCIA.

Contact: Chemicals Management Department

PR Net

We distribute information on JCIA sponsored events, such as seminars and Chemistry Experiment Shows, and subsequent event reports. The email magazine is issued once or twice a month, and the current number of subscribers is approximately 330.

Contact: Public Relations Department

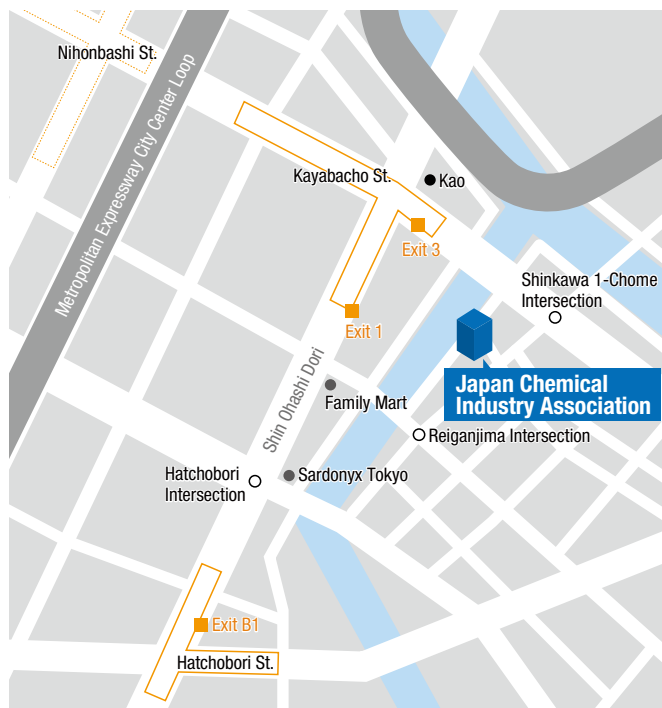
Glossary

Term/abbreviation	Official name	Explanation
ACC	American Chemistry Council	
AFPI	ASEAN Federation of Plastic Industries	
AMEICC	ASEAN Economic Ministers and METI Economic and Industrial Cooperation Committee	Subordinate organization of the ASEAN Economic Minister (AEM) - METI Consultation.
AOTS	The Association for Overseas Technical Cooperation and Sustainable Partnerships	A general incorporated foundation for overseas industrial human resources development.
APEC	Asia-Pacific Economic Cooperation	Framework for economic cooperation by 21 economies in the Asia-Pacific region.
ARCP	ASEAN Regulatory Cooperation Project	
ASEAN	Association of South-East Asian Nations	A regional cooperative organization comprising ten countries in Southeast Asia for economy, society, politics, security, and culture. The headquarters is located in Jakarta, Indonesia.
BAU	Business as usual	Natural case for which no special countermeasures were taken.
BIAC	Business at OECD (The Business and Industry Advisory Committee to the OECD)	Business and Industry Advisory Committee. Private Economic advisory committee to the OECD. It consists of private economic organizations in affiliate countries of OECD.
BIGDr	The Base of Information Gathering, sharing & Dissemination for risk management of chemical products	Total information system that comprehensively supports and promotes GPS/JIPS activities.
BIGDr.Worker	The Base of Information Gathering, sharing & Dissemination for risk management of chemical products.Worker	Evaluation software tool that JCIA developed to support chemical risk evaluations. It is possible to easily calculate the exposure concentration in the work environment and make evaluations.
Cefic	European Chemical Industry Council	
Chemical Inventory	—	Inventory of Chemical Substances
chem SHERPA	Chemical information Sharing and Exchange under Reporting Partnership in supply chain	Information transmission scheme of chemicals in products
cLCA	carbon -Life Cycle Analysis	Carbon footprint and life cycle assessment. The CO ₂ emissions during the life cycle (material sampling, manufacturing, distribution, use, and disposal) of final product using chemical products and that of final product using comparative products are compared, and that difference is considered as emissions that increase when those chemical products were not used and calculated as net contribution to avoided emissions.
CN	Carbon Neutral	When the volume of CO ₂ emissions accompanying people's daily activities and CO ₂ absorption are in balance. The aim is to achieve effective zero emissions of CO ₂ , the cause of global warming.
CPCIF	China Petroleum and Chemical Industry Federation	
DX	Digital Transformation	Increasing the quality of life and business through information technology (IT), such as high-speed Internet access, cloud service, and artificial intelligence (AI).
EAR	Export Administration Regulations	
EPA	Economic Partnership Agreement	
ESG	—	ESG refers to Environment, Social, and Corporate Governance. These are three core factors in measuring whether a company can sustainably develop.
FTA	Free Trade Agreement	
GADSL	Global Automotive Declarable Substance List	List of substances already restricted or planned to be restricted worldwide by countries and published by the GASG with the possibility of being contained in automotive products.
GASG	Global Automotive Stakeholders Group	Organization constructed and established by representatives of automotive, automotive parts, and chemicals manufacturers in Japan, Europe, and United States for the purpose of continuously exchanging and sharing information through the supply chain of the global automotive industry in order to achieve reductions in the environmental load through the life cycle of automotive.
GHG	Green House Gas	
GHS	Globally Harmonized System of classification and labelling of chemicals	Globally harmonized system concerning classification and labeling of chemicals. System for classifying chemicals by type and degree of hazard according to globally unified rules with labeling to make the information understandable at a glance and provide a safety data sheet. Issued from UN in 2003.
GPS	Global Product Strategy	Voluntary approaches for performing risk evaluations of chemical products by each company in order that each company minimizes the risk of chemicals through the whole supply chain by implementing appropriate management based on the risk and disclosing the information on safety and risk to general society including customers.
ICCM		International conference on the management of chemical substances.
JaIME	Japan Initiative for Marine Environment	Conference for marine plastic problems
JAMP	Joint Article Management Promotion-consortium	A consortium for promoting article management that appropriately manage information on chemical substances contained in an article (parts and finished products) and promotes a system for conveying the information throughout the supply chain.
JEITA	Japan Electronics and Information Technology Industries Association	
JIPS	Japan Initiative of Product Stewardship	Risk evaluation considering the supply chain and voluntary approaches by the industrial field on the basis of risk management.
KOCIC	Korea Chemical Industry Council	
KPI	Key Performance Indicator	Indicators set to monitor actual operation processes for achieving corporate targets and implementing business strategy.

Term/abbreviation	Official name	Explanation
LCA	Life Cycle Assessment	Method for objectively and quantitatively evaluating the environmental impact of all stages, from acquisition of materials for the product through production, use, disposal, transportation, etc.
LCI	Life Cycle Inventory	Indicates resource and energy input and emissions for products and services at all stages by looking at the whole life cycle from material purchasing to production, distribution, use, disposal, and recycling.
LRI	Long-range Research Initiative	Voluntary long-term research (Activities that support studies on the impact of chemical substances on human health and environment over a long period of time based on funds invested by LRI member companies). The initiative is driven by the cooperation of three chemical associations from Japan, the U.S., and European countries (JCIA, ACC, and Cefic).
NF ₃	Nitrogen trifluoride	Nitrogen trifluoride is a type of greenhouse gas.
NGO	Non-Governmental Organizations	Non-government organization created by private citizens and citizen organizations.
NITE	National Institute of Technology and Evaluation	
OECD	Organization for Economic Co-operation and Development	
PFCs	Perfluorocarbons	Perfluorocarbons such as CF ₄ and C ₂ F ₆ .
QSAR	Quantitative Structure-Activity Relationship	Quantitative relationship between chemical substance structure and biological (pharmaceutical and toxicological) activity. The purpose is to predict the efficacy of chemical substances with similar structures.
RC	Responsible Care	Activities wherein each company handling chemical substances voluntarily secures the environment, safety, and health in all processes of development of chemical substances, manufacturing, distribution, use, final consumption, disposal, and recycling and then discloses the outcome of activities and communicates with society.
RCEP	Regional Comprehensive Economic Partnership	A regional free trade agreement consisting of 15 countries (Indonesia, Singapore, Thailand, Philippines, Malaysia, Brunei, Vietnam, Myanmar, Laos, Cambodia, Japan, China, Korea, Australia, and New Zealand), primarily Association of Southeast Asian Nations (ASEAN) members. Signed November 2020.
SAICM	Strategic Approach to International Chemicals Management	Compiled by the 2006 International Conference on Chemicals Management, this is a strategic approach toward international chemical management with 2020 as the target year.
SDGs	Sustainable Development Goals	Seventeen goals until 2030 concerning poverty, starvation, energy, climate change, industry and innovation as agendas of 2030 for sustainable development were adopted by the UN in November 2015. Successor of Millennium Development Goals.
SF ₆	Sulfur hexafluoride	Sulfur hexafluoride is a type of greenhouse gas.
TPP	Trans-Pacific Partnership or Trans-Pacific Strategic Economic Partnership Agreement	Indicates the economic cooperation agreement that promotes not only customs duties for articles but also liberalization of services and investments and establishes 21st century type rules for intellectual property, financial services, electronic commerce, and the discipline of national enterprises in the Asia-Pacific region.
TF	Task Force	Special team established to tackle particular urgent issues.
VOC	Volatile Organic Compounds	This is a general name for volatile organic compounds that evaporate into the air. It includes various substances such as toluene, xylene, and ethyl acetate.
WTO	World Trade Organization	An organization that handles global trade rules between countries.
WG	Working Group	Working group organized for promoting investigations and planning of particular problems.
Equal Footing	—	Equalizing the various terms when competing. For example, eliminating preferential treatment for only a particular company in an industry.
Equal Partnership	—	Collaboration and partnership of equal relationship.
Carbon Pricing	—	General term for efforts to encourage reductions in emissions by attaching a price to carbon emitted by companies, households, etc. and placing a burden proportional to the volume emitted.
Japan-EU Economic Partnership Agreement	—	EPA between Japan and EU that came into effect February 1, 2019.
Japan-UK Comprehensive Economic Partnership Agreement	—	EPA newly concluded between Japan and UK because the Japan-EU Economic Partnership Agreement is no longer applicable as the UK left the EU. Came into effect January 1, 2021.
Trade Agreement between Japan and the United States of America	—	Agreement between Japan and U.S.A. to reduce/eliminate restrictive measures, such as customs and import quotas that Came into effect January 1, 2020.
Product Stewardship	—	Activities to ensure the health and safety of people and minimize the impact on the environment through the whole product life cycle.
Position Paper	—	Document in which a government, organization, individual, etc., states their own position and understanding regarding important issues, concerns, etc.
White Paper	—	Report on current conditions that include analysis of current conditions and future outlook.

Editor's Policy

The JCIA Annual Report is released each year to broadly inform all stakeholders, including members, of JCIA activities. In addition to activity reports for each committee, it concisely summarizes JCIA's various efforts to create a sustainable society. There are also plans to issue the JCIA Annual Report Reference Material, a compilation of various data related to JCIA activities, in fall.



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

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Department of Business/Economic Information

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Labor Department

TEL 03-3297-2563
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Technical Affairs Department

TEL 03-3297-2578
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Environment and Safety Department

TEL 03-3297-2568
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Chemicals Management Department

TEL 03-3297-2567
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Responsible Care Department

TEL 03-3297-2583
 FAX 03-3297-2615

Chemical Products PL Consulting Center

TEL 03-3297-2602
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Dream Chemistry 21 Committee

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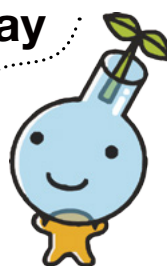
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October 23 is
Chemistry Day



Nikka-chan:
 JCIA's official character



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