

JCIA

ANNUAL REPORT

2020



Japan Chemical Industry Association

Providing solutions to social problems in an effort to build a truly sustainable society



My name is MORIKAWA Kohei, Chairman of the Japan Chemical Industry Association since May 2020. I am honored to be leading the organization as we look to make important progress.

With split, conflict, climate change, food crises, and a host of other social issues already creating a cloud of uncertainty on a global scale, 2020 has seen new waves of confusion further complicate the situation as the COVID-19 pandemic continues its protracted spread and leaves the world economy exposed to the possibility of unprecedented devastation. I think, in many ways, 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. For us to maintain our healthy growth in the long term and keep providing stable supplies of the products society depends on, we will need to focus on being safer and greener (more environmentally friendly) on three levels—the manufacturing process, during use (the products themselves), and post-use (recycling)—through efforts that earn the trust of the wider community.

We believe that making good on that commitment will not only propel the chemical industry forward but also help establish a more sustainable society. We have thus outlined several core themes for each level.

1 Safer and greener 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 load of its manufacturing operations. These areas will remain key focal points moving forward.

To help ensure safety, we will continue to fortify frameworks for gleaning and sharing valuable lessons and best practices from accident information. We will also offer drive efforts like smart safety to help businesses cope with aging equipment, losses of experienced veterans in the workforce, and other conditions.

Our efforts to minimize the industry's environmental burden, meanwhile, will involve promoting technical innovation to help cut greenhouse-gas emissions in business activities and formulating other components of plans to establish a low-carbon society. All of those initiatives will fall in line with efforts to reach new CO₂-reduction targets for 2030 as part of the campaign against climate change—an issue that affects the entire globe.

2 Safer and greener during use: The products themselves

One of the keys to making chemical products themselves safer and greener 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.

The churning, rapid progress of globalization has brought a variety of new challenges to light—and addressing the issues requires global coordination. The Japanese chemical industry will thus work to forge stronger cross-border ties by taking an active role in international conferences, such as the ICCA, and engaging with industry groups abroad. We will continue to emphasize the effectiveness and social value of chemical products, underlining the chemical industry's identity as a provider of solutions to social issues.

3 Safer and greener post-use: Recycling

The realization of a recycling-oriented society through closer attention to the safety and environmental friendliness of chemical products after use requires concerted action across the entire social spectrum, encompassing a diverse range of stakeholders. To make an even stronger push toward meaningful improvements, we will work to bolster the activities of the Japan Initiative for Marine Environment (JalME) and drive efforts forward.

Waste plastic is another issue that demands serious attention. There are three approaches to dealing with the problem: mechanical recycling, chemical recycling, and energy recovery. In the coming years, the growing importance of minimizing atmospheric CO₂ emissions will create a stronger need to make effective use of waste plastic as a resource. Chemical recycling is important from a social perspective, too, as it enables the reuse of chemical materials without any degradation in quality levels. Getting to the point where chemical recycling is a practical solution, however, will involve clearing numerous technical and institutional hurdles. We want to be proactive in meeting those challenges and paving the way for chemical recycling, which we see as an important, crucial component for the creation of a circular economy. To make that happen and give the approach a broader reach, we will work to develop the requisite technologies and promote real-world applications.

The international community is coping with COVID-19, and progress toward a truly sustainable society is gaining momentum. The chemical industry, I believe, can and should play a key role in bringing that ideal to fruition.

Embracing the industry's potential as both a source of pride and a call to action, I look forward to communicating the chemical industry's social value, highlighting its capacity for innovation, and leading the Japan Chemical Industry Association forward. On behalf of the organization, I thank you for your support.

Japan Chemical Industry Association

Chairman 森川 宏平



CONTENTS

- 01 Chairman's message
 - 03 About the Japan Chemical Industry Association
 - 05 For a sustainable society
Report on SAICM Activities
 - 09 Activities as a Member of
the International Society
 - 11 RC Committee
 - 13 Environment and Safety Committee
 - 15 Chemicals Management Committee
 - 17 Technical Affairs Committee
 - 19 International Activities Committee
 - 20 Economy and Tax System Committee
 - 21 Labor Committee
 - 22 Public Relations Committee
 - 23 JCIA Development of Talent
 - 25 Three JCIA Awards
 - 26 Introduction of Chemical Products
PL Consulting Center
- Information Distribution

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

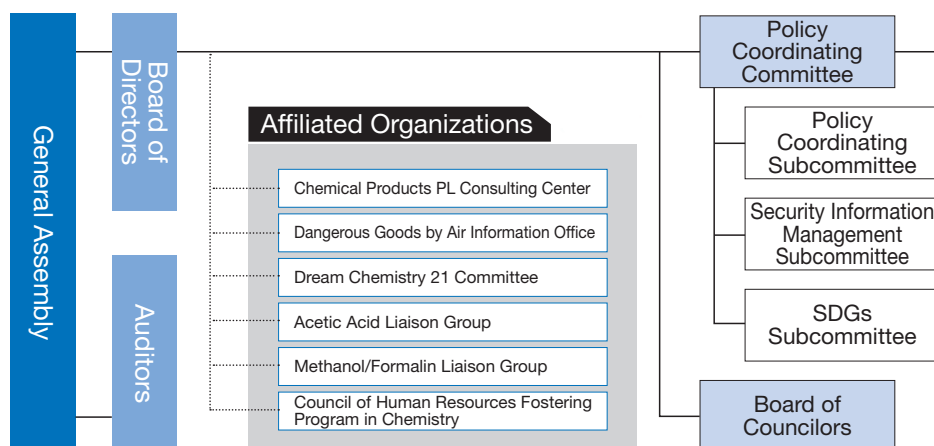
1. Research and study on the production, distribution and consumption of chemical products.
2. Research and study on issues concerning technology, labor, the environment, chemical safety, etc., as well as planning and promoting measures and actions.
3. Commendations for outstanding achievement in new 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.



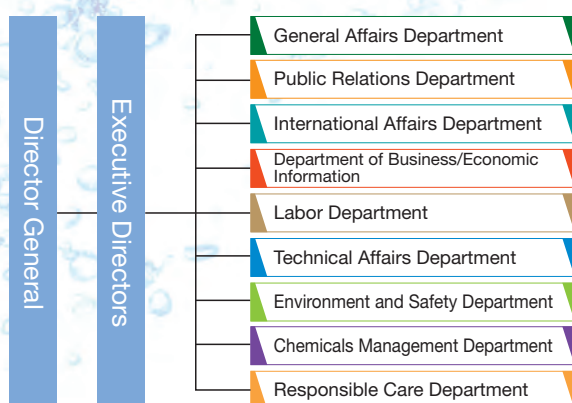
Board members of the Japan Chemical Industry Association (as of July 1, 2020)

Chairman (Representative Director)	MORIKAWA Kohei	Showa Denko K.K. Representative Director, President
Vice Chairman (Representative Director)	OCHI Hitoshi	Mitsubishi Chemical Holdings Corporation. Representative Corporate Executive Officer, President and Chief Executive Officer
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. Representative Director, President & CEO
Director	SAWADA Michitaka	Kao Corporation Representative Director, President & CEO
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	KOGE Teiji	Sekisui Chemical Co., Ltd. Chairman of the Board 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 President and Chief Operating Officer
Director	HASHIMOTO Osamu	Mitsui Chemicals, Inc. President & CEO
Director	FUJII Masashi	MITSUBISHI GAS CHEMICAL COMPANY, INC. Representative Director, President
Director General	WATANABE Hiroshi	The Japan Chemical Industry Association
Executive Director	SHIBUYA Masao	The Japan Chemical Industry Association
Executive Director	NAGAMATSU Shigeki	The Japan Chemical Industry Association
Executive Director	MAKINO Hideaki	The Japan Chemical Industry Association
Executive Director	SAKATA Shinoi	The Japan Chemical Industry Association
Auditors	YAMAMOTO Manabu	Denka Company Limited Representative Director, President
Auditors	YAMAMOTO Toshinori	Tosoh Corporation Representative Director, President

Committees



Organizational Chart of JCIA Secretariat



Toward a Sustainable Society

Tackling SAICM Activities

The concept of sustainable development was widely recognized by society thanks to the Rio Summit in 1992 and the Strategic Approach to International Chemicals Management (SAICM) was adopted by the International Conference on Chemicals Management in 2006 as an action plan to realize sustainable development. The goal of SAICM is to ensure that, by the year 2020, chemicals will be produced and used in ways that minimize significant adverse impacts on the environment and human health. Moreover, information related to risk reduction based on chemical risk evaluations, preventative approaches, and harmful chemicals is gathered and provided, and it defines the promotion of maintenance of chemical management systems. At JCIA, we are promoting domestic SAICM activities through the development of various measures, such as our Responsible Care efforts, to achieve a sustainable society.



History of Chemicals Management

	International Initiatives	Government of Japan and Foreign Government Initiatives	JCIA and ICCA Initiatives (Private Sector Initiatives)
1992	United Nations Conference on Environment and Development (UNCED) @ Rio de Janeiro (Rio Declaration) Agenda 21, a human action plan for the realization of a sustainable development, was adopted		
2000	United Nations Millennium Declaration at the UN, Millennium Development Goals (MDGs) were adopted		
2002	World Summit on Sustainable Development (WSSD) goals for 2020 agreed upon		
2003		The Chemical Substances Control Law (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) amended to include consideration of the impact to flora and fauna in the environment	
2005		Start of the Japan Challenge Program	ICCA formulated RC Global Charter
2006	The SAICM Roadmap was adopted at the first session of the International Conference on Chemicals Management (ICCM-1)	Chemical management in accordance with SAICM listed as a measure in the Third Fundamental Environment Plan	ICCA: Formulated GPS as a strategy to promote a detailed PS
2007		REACH enacted	
2009	Second session of the International Conference on Chemicals Management (ICCM-2)	The Chemical Substance Control Law amended to include the introduction of risk-based chemical management	JCIA created a Japanese version of the GPS and decided to promote JIPS
2011		The pollutant release and transfer register (PRTR) system revised and fully enacted	
2012	Third session of the International Conference on Chemicals Management (ICCM-3)	Government of Japan formulated SAICM Implementation Plan	
2013			JCIA released JCIA BIGDr to members
2014			ICCA revised the RC Global Charter
2015	Fourth session of the International Conference on Chemicals Management (ICCM-4) The UN adopted SDGs (Goals for 2030) Successor to MDGs	Government of Japan released progress status of the SAICM Implementation Plan	
2016		US Government amended the Toxic Substances Control Act (TSCA) (prioritization of risk assessment of substances)	JCIA formulated Principles of JCIA regarding the Environment, Health and Safety 2016 JCIA established the JIPS Award
2017		The Chemical Substance Control Law amended (Introduction of environmental emissions management of new chemicals produced in small/low amounts)	JCIA formulated Vision of the Chemical Industry for Sustainable Development
2018		REACH existing chemicals 1 ton/year or less Registration deadline (Acceptance of registration of all existing chemicals closed)	JaiME established with 50 companies; JCIA and five other organizations acting as the secretariat
2019		The 2017 amendment of the Chemical Substance Control Law fully enacted	
2020		Government of Japan released progress result report of the SAICM Implementation Plan	
2021	Fifth session of the International Conference on Chemicals Management (ICCM-5) to be held		

What is SAICM?

SAICM is an acronym for Strategic Approach to International Chemicals Management.

At the Johannesburg Summit in 2002, the objective of "producing and using chemicals in ways that minimize significant adverse impacts on the environment and human health by the year 2020" was enacted and adopted at the International Conference on Chemicals Management in 2006 to achieve this goal.



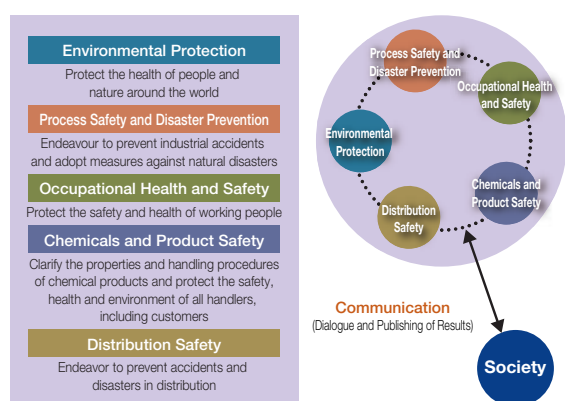
RC Report

In the chemical industry, each member company handling chemical substances engages in voluntary activities aimed at preserving the environment, safety, and health, publishing the results of activities, and engaging in dialogue and communication with society in all processes of such substances, ranging from the development, manufacture, distribution, and use of chemical substances to disposal and recycling after final consumption. These activities are collectively called Responsible Care, or RC for short.

In 2005, the ICCA enacted the RC Global Charter as a policy to develop RC activities and in 2014, further revised the RC Global Charter to define more specific action strategies such as leveraging the leadership of the top managers at companies in the industry. At the time of this revision, the 56 JCIA member companies (as of the end of 2015) that have business concerns across the world agreed with the gist and signed on to the revisions to the RC Global Charter. Moreover, Principles of JCIA regarding the Environment, Health and Safety 2016 was enacted as a revised policy in accordance with the gist of the revised RC Global Charter. This policy requires more specific action on appropriate management, process safety, and security of chemical substances through GPS/SAICM initiatives, and points related to approaches to business partners, information dissemination to stakeholders, and contribution to

sustainable development of society were also reflected. The JCIA RC committee in collaboration with member companies are promoting efforts with the goal of achieving the five RC implementation items and release the results to proactively communicate with society. As part of this initiative, RC Regional Dialogue Meetings continue to be held with residents living in the vicinity of plants as well as businesspeople in 15 areas throughout Japan to talk about risks.

Implementation Items for Responsible Care

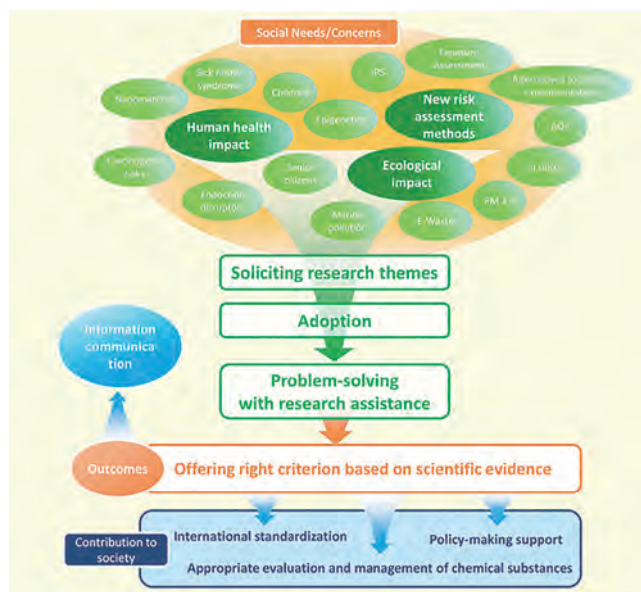


LRI

The Long-Range Research Initiative (LRI) is one of the ICCA's voluntary activities that is a long-term initiative, which is being promoted in cooperation with the chemical industry associations in Japan, United States, and Europe (JCIA, American Chemistry Council (ACC), and European Chemical Industry Council (Cefic)), and has the following three goals: (1) Spread chemical knowledge about chemicals as they relate to health and the environment, (2) promote the improvement of capabilities to safely manage chemicals through development of screening techniques and new testing methods, and (3) support the determination of public policy based on scientific data.

JCIA has been promoting this activity in Japan since the year 2000 and started running it as a new LRI in 2012 through review of specific research policies, formulation of themes, and management organizations. In November 2012 (first term), contract research of a total of 14 tasks began in five fields, and a total of 11 tasks have been adopted as of March 2019 (7th term). In this time, a total of 106 contract research endeavors had been implemented. Results of the research tasks have been published as papers and 36 papers have been published to date. Furthermore, evaluation tools (SWEES, AIST-MeRAM, and ChemTHEATRE) created through support of the JCIA LRI have been released publicly and "Skin sensitization prediction approach that uses novel Lys and Cys derivatives (ADRA)" that was supported by the JCIA LRI was published in OECD Test Guidelines Test No. 442C in June 2019.

Overview of the LRI



Toward a Sustainable Society



Chemicals Management Report

① GSS creation and publication on JCIA BIGDr

JCIA is promoting JIPS, which is a Japanese version of GPS promoted by ICCA, as a voluntary initiative in the chemical industry. GPS/JIPS aims to minimize the risk from chemicals across the whole supply chain by each company voluntarily performing a risk evaluation of their own chemical products and properly managing them on a risk basis as well as releasing information about product safety, risk, and management methods to the general public. JCIA supports gathering of information and risk assessments in order to support GPS/JIPS and perform risk evaluations and also has developed and maintains a total support website called “JCIA BIGDr” related to ways to create a GPS/JIPS Safety Summary (GSS). GSS, which is a result of the initiative, is a document in which the GPS/JIPS review result (risk evaluation results, etc.) related to chemicals produced or sold by a company is gathered into an easy-to-read format. The GSS created by JCIA member companies is published on JCIA BIGDr and as of March 2020, there are 558 documents.

Substance Name	CAS Number	EMECX Number	Company Name
1,2,3-triglycidyl, isocyanate	302-78-1		Daiichi Chemicals, Ltd. (ダイイチケミカル株式会社)
1,2,4-benzenetri(carboxylic acid, acyl, acyl ester)	67899-23-5		Aris Corporation (アリス株式会社) (Shimizu) Aris Corporation (アリス株式会社) (Tokyo)
1,3-benzenediol; <i>p</i> -[3,3-dimethylallyl]-	96-09-3		Daicel Chemicals (ダイセルケミカル株式会社) Daicel Chemicals (ダイセルケミカル株式会社)
1,3-Substituted	884-05-2		Mitsubishi Chemical Corporation (三菱ケミカル株式会社)
1,3-Substituted	897-85-7		TOYOBO CORPORATION (トヨボ株式会社)
1,3-Substituted, 6,6,6-trisubstituted	112-24-1		TOYOBO CORPORATION (トヨボ株式会社)
1,3-Substituted, 6,6,6-trisubstituted	112-85-6		TOYOBO CORPORATION (トヨボ株式会社)
1,3-Substituted, 6,6,6-trisubstituted	112-87-2		TOYOBO CORPORATION (トヨボ株式会社)
1,3-Substituted	897-81-1		Mitsubishi Chemical Corporation (三菱ケミカル株式会社)

② Chemicals management activities in the supply chain

In order to promote sound management of chemicals in the supply chain, JCIA supported the construction of an appropriate management platform for the domestic and international dissemination of the information sharing scheme for chemicals in products called “chemSHERPA” which is managed and operated by the Joint Article Management Promotion-consortium (JAMP). Moreover, JCIA responded to the maintenance of the substance list GADSL created and maintained by the Global Automotive Stakeholder Group (GASG) that consists of the representatives from Japanese, US, and European automobile, parts, and chemical manufacturers from the standpoint of the chemical industry. Additionally, JCIA co-sponsored the GASG steering committee held in November in Tokyo with the Japan Automobile Manufacturers Association, was involved in the management of the conference, and also introduced the topics about chemical regulations in Japan. Furthermore JCIA participated in the domestic committee and

working group for the international standard TC111 (environmental standard for electrical and electronic equipment) promoted by the electrical and electronic industries such as JEITA, and cooperated to create and maintain international standards.





Response to Marine Plastic Problems

Held an outreach to Asia training seminar

The Japan Initiative for Marine Environment (JaIME) held the “Outreach to Asia Training Seminar (Program to Improve Management of Plastic Waste)” on February 12 to 18, 2020 at the Tokyo Kenshu Center of Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS) targeting governments, plastic manufacturers, retailers, waste disposers, and policy experts from ASEAN countries. A total of 29 people coming from Indonesia, Thailand, Malaysia, Philippines, Myanmar, Vietnam, and Singapore to participate. Japanese findings and experiences about building cooperative relationships between related parties and statistical methods to ascertain the amount of plastic waste were introduced at the seminar and a legal system



related to waste management in Japan was also explained. Tours of a final waste disposal site (landfill), waste-to-energy incineration plant, and recycle plants were also given. On the final day, participants from each country presented reports with policy proposals for their countries and shared the current issues they are facing and future action plans.

Creation of an educational DVD

An educational DVD was created for middle school students in order to convey the fact that “Plastic is a valuable asset created from precious resources, and has the potential to contribute to a sustainable society if used responsibly” to future generations. The goal is to use it at schools as middle school science material in accordance with new educational guidelines.

Organization and dissemination of information, and responding to domestic trends

JaIME compiles and analyzes various information and reports related to marine plastics, and disseminates the appropriate information to members in addition to utilizing them in JaIME discussions and activities. Moreover, JaIME discusses policy to solve domestic issues and offer our opinions on behalf of the industry.



SDGs

Overview of Initiatives

JCIA has been looking into how the chemical industry can contribute to SDGs since January 2017 and published the Vision of the Chemical Industry for Sustainable Development in May. In order to support the various initiatives for SDGs that our members have been tackling since 2018, we established the SDGs Subcommittee. Additionally, we are also collaborating with the government and chemical associations to disseminate information externally.



Progress Status and Results of Initiatives

JCIA introduced activity case studies for each of the 17 SDGs. For instance, for SDG 12, “Responsible consumption and production,” we have taken up the following four points: “Associate widely with Responsible Care,” “SAICM and GPS initiatives help with chemicals management in the product lifecycle,” “Functional materials and technologies help with resource-saving processes that have a small environmental footprint,” and “Promote the reduction of waste materials through reuse of waste and recycle technologies.”

We established the SDGs Subcommittee on June 2018 to share case studies and exchange information with members, hold group work and opinion exchange sessions with the theme of in-house dissemination, which is a challenge for many companies, and held study sessions lead by government officials and external experts.

We created a website dedicated to the SDGs (<https://www.nikkakyo.org/sdgs>), which went live in December 2018, and published our vision, SDGs case studies, and other information.



In the SDGs case studies, we list business activities related to food, resources, energy and environment in the fields of healthcare, nursing care, medicine, social infrastructure, and others that our members are involved in, and publish other information to show stakeholders that the chemical industry is contributing broadly to achieving the SDGs.

Vision of the Chemical Industry for Sustainable Development (formulated by the JCIA in May 2017)

Strengths of the Japanese Chemical Industry
 Innovative technologies and products (Innovation) Ability to solve environmental and other problems (Solution)

Leverage strengths to evolve

From a reactive industry to a proactive industry
 Responsibility to contribution

- Vision 1 [Create innovation with the power of chemistry to contribute to a sound and comfortable lifestyle](#)
- Vision 2 [Support initiatives to combat global environmental and safety issues](#)
- Vision 3 [Accelerate the contribution of the chemical industry through dialogue with stakeholders](#)

Activities as a Member of the International Society

JCIA has conducted various support activities for development of the chemical industry such as human resource development for safe operation of chemical plants and has held seminars to train practitioners of chemicals management. The activities are not limited to Japan, but JCIA has joined ICCA on behalf of the Japanese chemical industry and has actively contributed to activities toward a sustainable society as a member of the international society, such as human resource development for the advancement of the chemical industry mainly in the East Asia and Southeast Asian regions, participating in the programs to show the know-how of international chemicals management, and participating in the Chemical Dialogue of APEC and AMEICC Working Group on Chemical Industry.

International Council of Chemical Associations (ICCA) Activities

ICCA was established in 1989 by the chemical industry associations of the United States, Japan, Europe, and Canada. Currently, the chemical industry associations of North America, South America, Europe, Asia, Oceania, and Middle East Gulf countries have joined as Full Members. 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 four core Leadership Groups which implement activities such as strategic initiatives and policy recommendations to overcome challenges in each field. ICCA also launched Plastics Leadership Group in 2019 and the Group has started its activities. Please see the official website for more information on activities of ICCA.

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



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

The chemical industry is aggressively demonstrating the role as a solution provider and presenting the outcomes by tackling the challenges of world energy and climate change to garner understanding from international society. In 2019, the ICCA issued a report*1 about the contribution to a low carbon society through innovation in the chemical industry, which was introduced at COP 25 and a battery seminar*2 jointly sponsored by the Royal Swedish Academy of Engineering Sciences (IVA) and the Japan Society for the Promotion of Science (JSPS). For an overview of other ICCA E&CC LG activities, please access see the QR code*3 and get the information from ICCA website.

Note: The QR codes below to provide get the detail information for notes *1 to 3.



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

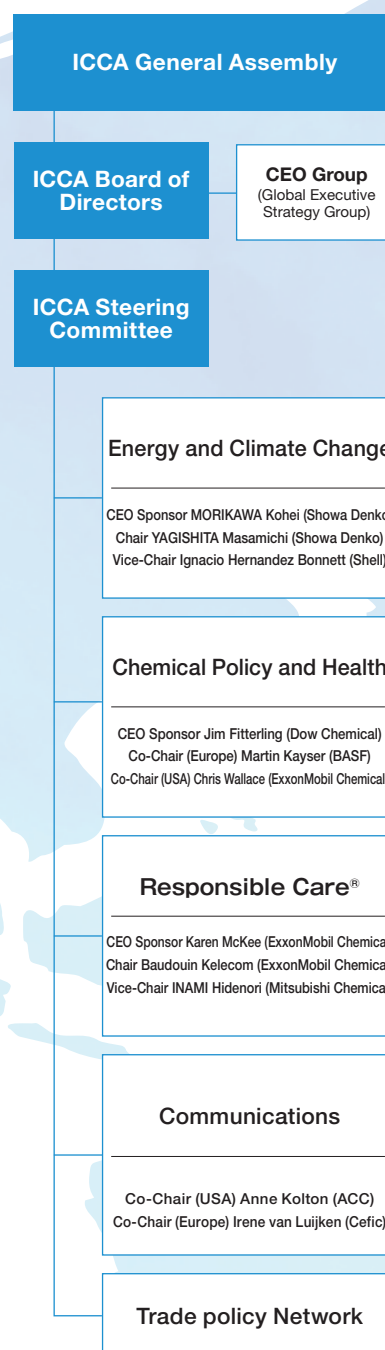
JCIA participated in CP&H LG meeting held in Helsinki last October, related task force and web conference. JCIA introduced an overview of activities in Japan focused on the issue of plastic waste, and expressed their opinion that the energy recovery is one of the effective methods to handle plastic waste at the meeting. JCIA also introduced GHS initiatives in Japan with particular regard to the JIS revision related to GHS implemented in FY2019.

ICCA Responsible Care LG (RCLG) Activities

The spring meeting was held in Buenos Aires at which a statement related to RC, sustainability, and the circular economy was introduced. Revision of the content on the ICCA web-page was also considered. Additionally, at the fall meeting held in Seoul, the RC Charter for the associations worldwide was signed as the 2020 activity plan and there was a discussion of the review of operating methods to more effectively appeal to external parties about the capacity building activities of ICCA for developing associations.



ICCA Organization Chart



ICCA LRI Workshop

A joint workshop of the International Council of Chemical Associations (ICCA) and the European Commission's Joint Research Center was held at Stresa, Italy on June 19 and 20, 2019. About 50 people were in attendance to discuss the topic of development and application of New Approach Methods (NAMs) for risk evaluation and management of complex chemical compounds (particularly use examples of NAMs for the purpose of supporting decision making in regulatory agencies and product management), consideration of uncertainty in the risk evaluation of complex chemical compounds, and initiatives to improve risk evaluation of complex chemical compounds. There were two presentations from Japan as well that introduced Japanese initiatives.

16th Asia Pacific Responsible Care Conference (APRCC)

APRO is an organization comprised of 15 chemical industry associations from the Asia-Pacific region that promotes RC activities in the same region. The biennial APRCC of member nations was held on November 7 and 8, 2019 in Seoul, South Korea. The main theme was "The next challenge for Responsible Care" and there were five sessions including process safety with 245 participants from all over the world.



ICCA ASEAN Regulatory Cooperation Project (ARCP)

Activities

ASEAN Regulatory Cooperation Project targets countries participating in the ASEAN Economic Community, promotes activities focusing on risk-based chemicals management under the influence of ICCA's "global policy of regulatory cooperation" to improve chemicals regulations in this region. This project is led by the Singaporean association and JCIA participates as a member of the organization committee with both ACC and Cefic. A workshop and a seminar were held in Vietnam in September. Applicable parties in the public and private sectors from the 10 ASEAN countries gathered together to discuss the two virtual working groups (GHS and Chemical Inventory) for promoting regulatory cooperation in area where there is a possibility of concrete harmony, and held a seminar on risk assessment.



APEC Activities (Chemical Dialogue)

APEC is an economic cooperation forum with 21 member economies from the Asia-Pacific region that conducts activities related to free trade and investment, business facilitation, security of people, economic and technological cooperation, and so on for sustainable growth and prosperity of the Asia-Pacific region. JCIA participates in Chemical Dialogue, which is a sub-forum of the APEC Committee on Trade and Investment. The Chemical Dialogue is a forum with the goal of finding solutions to problems facing the chemical industry in the Asia-Pacific region for representatives of regulatory agencies and the industrial sector. It is a place that enables effective cooperation between the industry and governments to improve the safe use and stewardship of chemical products, and promotes understanding of the role of the chemical industry as an innovative solution provider to sustainably develop the economy, environment, and society through trade by supporting and expanding regulatory cooperation and mutual recognition in the region. JCIA actively provided opinions and suggestions as a representative of the Japanese chemical industry at the Chemical Dialogue.



AMEICC Activities (Japan/ASEAN Economic and Industrial Cooperation Committee)

AMEICC is a subordinate organization of ASEAN Economic Ministers and METI (Ministry of Economy, Trade and Industry), Japan Consultations (AEM-METI) that undertakes concrete economic and industrial cooperation in the ASEAN region. JCIA proactively participates in AMEICC efforts, requested the cooperation to effectively use of AJCSD (ASEAN-Japan chemical safety database) and discussed on the WS related to chemical management in the future in each country at the Working Group (Indonesia) in July.

Participation in OECD Conferences

JCIA attended conferences (Joint Meeting of the Chemicals Committee and Working Party on Chemicals, Pesticides and Biotechnology, Working Party on Hazard Assessment, Working Party on Exposure Assessment, Working Party on Manufactured Nanomaterials, and Extended Advisory Group on Molecular Screening and Toxicogenomics) held by the Organisation for Economic Co-operation and Development (OECD) as a member of BIAC, which is an advisory body to the OECD for the private sector. We have gathered useful information and inform it to JCIA members as well as expressed their opinions.

Activity Report: Responsible Care (RC) Committee

[Responsible Care Department]



MESSAGE

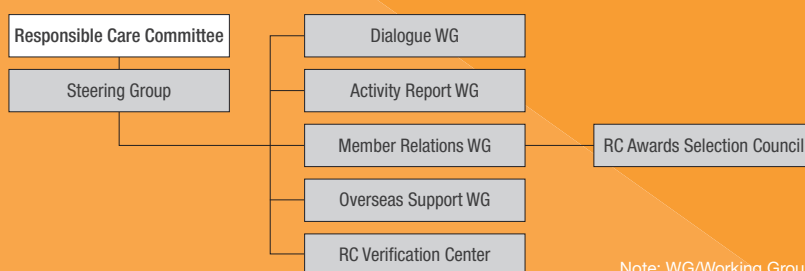
Contributing to the continuous improvement of RC activities and the realization of a sustainable society

Based on “contribution to the realization of a sustainable society,” we will work for continuous improvement of our RC activities and implement positive and open activities in order to further enhance the public recognition of our RC activities and the presence of the chemical industry. In Japan, we will proceed with better activities that reflect the opinions of members in response to the changes in the environment surrounding the chemical industry. In foreign countries, we will continue to support the RC activities of local business establishments of member companies, and particularly in Asia, we will strive to expand the base of RC activities by not only supporting each national association, but also encouraging Japanese subsidiaries to participate in RC activities.

Committee Chairman, **FUKUDA Nobuo** [Representative Director of the Board, Managing Executive Officer, Mitsubishi Chemical Corporation]

Activity Outline

The purposes of the RC Committee are to support member’s RC activities, further improve the society’s trust in our members and the chemical industry, and contribute to the sustainable development of the chemical industry and society. To this end, the Committee focuses its efforts on supporting the continuation of RC activities and tackling the task of the activation and the expansion of the range of the activities.



Note: WG/Working Group

FOCUS

RC Member Relations Study Sessions

The RC Committee holds study sessions every year to actively introduce new perspectives, standards, technologies, and concepts into RC activities. In FY 2019, study sessions were held in Osaka (October) and Tokyo (November). In Osaka, we discussed the topic of “cultivating young personnel” as a challenge common to all group companies. This topic has been discussed on several occasions at member relations events to share the best practices adopted at each company. This time, to take in new findings, we decided to “learn about cultivating young employees from other industries” and invited Professor NISHIO Kumiko from Kyoto Women’s University for a lecture and discussion on the “cultivation of maiko (apprentice geisha) in Kyoto geisha districts” where traditional skills have been passed on for more than 350 years. In Tokyo, we took up the “establishment of safety culture” as our topic. While a variety of

efforts are taking place at the RC member companies, it is quite difficult to achieve “zero accidents and disasters.” While it is important to deal with complex, large-scale, or aging facilities in order to prevent these accidents and disasters, it is also critical to establish the values and behaviors that “place top priority on safety, or in other words, “develop a safety culture.”

In light of this, we had Professor TAKANO Kenichi from Graduate School of Systems Design and Management (SDM), Keio University to talk about “what safety culture is” and “how we can create a safety culture” based on his diagnostic experience at offices of more than 100 companies, including some specific examples. The participants then discussed “how we can reinforce safety culture at work sites.”

Signing the RC Charter of national association

Responsible Care (RC) is a global, voluntary initiative practiced in more than 60 countries around the globe. Chemical producers who have business worldwide represent their compliance with the international principles of Responsible Care by signing and operating in accordance with the Responsible Care Global Charter. The Global Charter that garnered signatures from 580 enterprises worldwide plays



the role of unifying the chemical industry with RC. Additionally, the Fifth Session of the International Conference on Chemicals Management (ICCM5) is scheduled to be held in July 2021 in Germany to discuss international chemicals management for the future. To strongly promote the chemical industry's RC activities toward this conference, the Responsible Care Leadership Group (RCLG) of the International Council of Chemical Associations (ICCA) formulated localized versions of the Global Charter and a total of 63 RCLG member associations signed this Charter. In the Global Charter, each association must actively strengthen

Responsible Care worldwide, promote the safe management of chemicals within the member companies as well as their business partners in their value chain in accordance with the country's RC program, and improve living standards and quality of life through the active protection of communities and the environment as well as the contribution presented for attaining the UN's SDGs. The national association's RC Charter is signed by both the head of the association and Director-General, and JCIA has also signed this version of the RC Charter.

TOPICS

TOPIC 1 RC Regional Dialogue

In FY 2019, RC regional dialogue meetings were held in four areas, Western Yamaguchi, Kawasaki, Sakai-Senboku, Iwakuni-Otake



with 60 to 110 participants, comprising residents living in the vicinity of chemical plants as well as local government staff, and businesspeople from the area. Residents in all four areas have a great interest in the impact of and measures in place for earthquakes and tsunamis, fires and explosions, and raised many questions and exchanged opinions. The regional dialogue meetings were not held in Oita, Toyama-Takaoka, and Northern Niigata during this fiscal year due to COVID-19.

TOPIC 2 RC Activity Report Meeting

RC Activity Report Meetings were held at the Tsukishima Social Education Hall in Tokyo on June 13, 2019 and at Kanden Hall in Osaka on July 23. The Tokyo RC Activity Report Meeting combined



the RC Award Lecture and the Osaka RC Activity Report Meeting combined a member relations event, with 115 participants and 64 participants, respectively. As an external lecturer, we welcomed Dr. KUSUKAMI from East Japan Railway for a lecture on the topic of "understanding human factors in safety."

TOPIC 3 RC Consumer Dialogues

We hold a consumer dialogue meeting every year in order to deepen our mutual understanding with representatives of consumer groups and build the relationship of trust. In FY 2019, the meetings



were held at the plants and laboratories of RC members in Shiga and Ibaraki, and we observed the RC activities at the plants and laboratories as well as introduced and exchanged opinions about the trend of actions taken for marine plastic problems and the examples of measures for reducing plastic waste.

TOPIC 4 Overseas Support Activities

1. Support activities in Thailand

We visited SCG-Chemicals' training center (OETC), which has a safety sensory training facility, with 40 participants and received hands-on experience of



the sensory training. With the Japanese Chamber of Commerce in Bangkok, we co-organized a workshop for local employees involved with RC (in English and Thai) and a lecture session with a focus on local corporation managers (in Japanese), where we received an outstanding and much larger number of participants than the previous year.

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

In response to the request for cooperation from the Ministry of Economy, Trade and Industry of Japan based on the FY 2019 Plan via the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS), the AMEICC Working Group on Chemical Industry visited five ASEAN member countries and offered a two-day workshop on labor safety and disaster-preventive maintenance targeting line managers at manufacturing plants.

TOPIC 5 RC Verification Activities

Responsible Care is the foundation of the activities of chemical manufacturers. Each firm abides by this foundation, incorporates SDGs and ESG elements into their corporate activities for long-term, sustainable growth, and publicly discloses the results in integrated reports or sustainability reports. JCIA verifies these reports from the perspective of RC for the purpose of enhancing the quality and reliability of these reports. During FY 2019, 10 RC member companies accepted the review for verification, and as a result, we have reached a cumulative total of 228 completed verifications since the start of verification in 2002.

Activity Report: Environment and Safety Committee

[Environment and Safety Department]

MESSAGE

Safety and environmental considerations during chemical product manufacturing are a top-priority issue

Based on the “Principles of JCIA regarding the Environment, Health and Safety” the Environment and Safety Committee holds the considered view that “Efforts securing safety and conserving the environment create new value,” and is working on various tasks to enable companies to continue their sound growth upon establishing a foundation for activities grounded in their communities. We will identify the trends in Japan and overseas, share the issues with members in order to enable collective responses, as well as provide opinions and collaboration with administrative authorities and relevant organizations. We will also contribute to the development of a sustainable society through chemical manufacturing by promoting the development of the members’ voluntary activities.

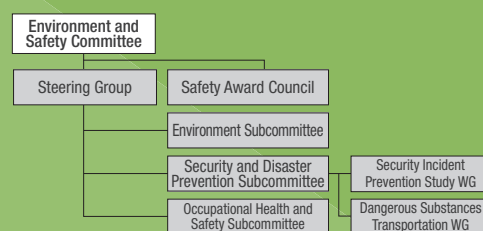
Committee Chairman, **SUETSUGU Minoru**

[Lead Executive Officer and Executive Officer for Manufacturing, Asahi Kasei Corporation]



Activity Outline

The three subcommittees of the Environment and Safety Committee identify the trends in Japan and overseas and share issues with members while also offering opinions of the chemical industry to the administrative authorities and relevant organizations. Our safety activities consist of the working group’s publication of a compilation of lessons learned for the prevention of recurrence based on actual examples of incidents, safety commendations, industrial safety seminars co-organized by relevant organizations, and participation in public-private council meetings. As our environmental preservation activity, we promote proper compliance with environmental laws and regulations along with voluntary activities related to VOC emissions and waste recycling.



Note: WG/Working Group

FOCUS

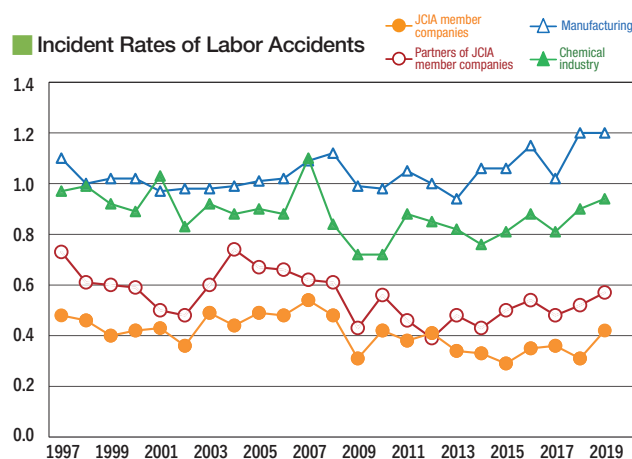
Safety-Related Accident Prevention Efforts

“Safety-Related Accident Prevention” is one of the most important tasks of JCIA. Based on “About the promotion of measures for the prevention of disasters in petrochemical complexes (request)” issued by the Ministry of Economy, Trade and Industry, we are deepening educational activities for the prevention of safety-related accidents by utilizing DVDs for education and issuing the “Safety-Related Accident Prevention Guidelines (reprint 2)” to make use of actual examples of incidents at member companies in addition to the “Safety-Related Accident Prevention Guidelines.” In addition, we actively participate in the Public-Private Council for Safety Measures in the Manufacturing Industry and work on the new prevention of safety-related accidents through cooperation with other organizations and providing educational materials to contribute to the realization of a sustainable society through chemical manufacturing.

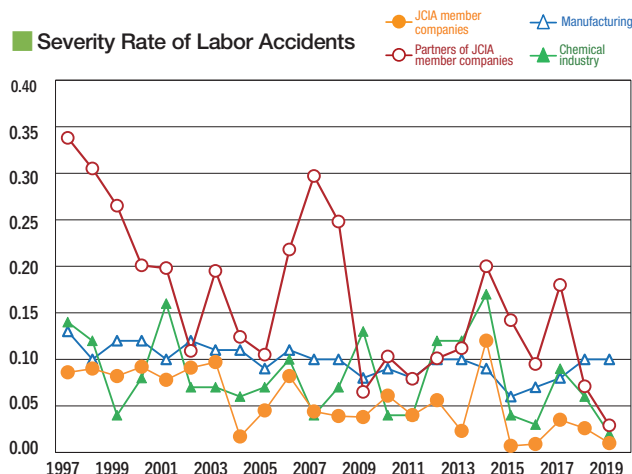
Labor Accident Prevention Efforts

At the core of JCIA’s labor accident prevention efforts are the cooperative efforts to promote the administrative authorities’ 13th five-year industrial accident prevention plan and the sharing of the latest, important information among member companies. The former involves the active participation in organizational activities of the Public-Private Council for Safety Measures in the Manufacturing Industry, etc. and the provision of labor safety information. Recently, we consolidated the members’ opinions and reflected them in the development of a standard method of risk assessment. The latter involves active collection of labor policy information from the administrative authorities and the summarization and provision of member companies’ opinions. For the safe handling and management of chemical substances, we offer opinions about trends of stricter regulations on the prevention of exposure to asbestos and new reviews regarding chemicals management.

Incident Rates of Labor Accidents



Severity Rate of Labor Accidents



Environmental Preservation Efforts

To reduce the environmental risks posed by chemical substances, we actively promote voluntary activities and publication of results for resource circulation through reducing environmental load by reducing the emissions of chemicals independently specified by JCIA in addition to the substances that need notification under the Law for PRTR and

TOPICS

TOPIC 1 Responses to the Revision of Environmental Laws

The Environment Subcommittee exchanges opinions about the revision in environmental laws from the perspectives of rationality and effectiveness, and shares information on new requirements and changes. We also provide the collected opinions to administrative authorities and relevant organizations.

[Major environmental laws and outline of their suggested amendment and revisions]

Air Pollution Control Act

An answer has been given regarding details about the prevention of asbestos dispersal, and a bill for the partial amendment of the Air Pollution Control Act has been submitted to the 2020 ordinary Diet session. Currently, technical matters are under review.

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act)

An answer has been given regarding details about the environmental measures for chemical substances, and suggestions of target substances were presented at the joint meeting of the three ministries (METI, MOE, and MHLW) for the revision of PRTR Act target substances.

Act on Rational Use and Proper Management of Fluorocarbons

A direct penalty has been introduced for a failure of delivery of fluorocarbons by a person undertaking the disposal of Class 1 specified products, and the issuance of a fluorocarbon recovery certificate to waste disposal and recycling businesses has been mandated.

Waste Management and Public Cleansing Act and Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes

The waste classification for combustible PCB waste has been revised, and waste containing more than 0.5% PCB but within 10% PCB will be classified in low-PCB content waste.

Soil Contamination Countermeasures Act

Standards for soil contamination regarding cadmium and its compounds and trichloroethylene were revised and answered.

TOPIC 2 Safety Education and Human Resource Development

Utilizing educational material for human resource development regarding safety-related accident prevention (guideline, Japanese version/English version DVD), and using manufacturing site leader training, external human resource development courses, and seminars, we conducted the spread and dissemination activities in FY 2019 as well. We also continuously support education such as dispatching instructors and providing educational material to the human resource development courses held by the Sanyo Association for Advancement of Science & Technology and the Chiba Industry Advancement Center.

TOPIC 3 Activities of Occupational Health and Safety Subcommittee

The Occupational Health and Safety Subcommittee investigates the movement around revisions in laws related to labor safety and health, and through information provision based on such investigations, primarily shares information with member companies and communicates the members' opinions to the administrative authorities. Recently, as a member of the chemical industry, we have participated in the revision of special health check items, regulations on specified chemical substances regarding manganese compounds, and work environment measurement regulations, and currently in the revision of regulations on the handling of chemical substances. We are actively engaged in activities including providing information to members,

Promotion of Chemical Management, reducing landfill waste, and promoting effective use of resources. As part of our efforts to ensure compliance with environmental laws, we collect and organize the latest information on law revisions and reflect the requirements in the member companies' activities without fail while holding monthly environment committee meetings to offer the opinions of the chemical industry to the administrative authorities.

organizing members' opinions, and offering opinions to administrative authorities. By collecting recommendations from member companies that are practicing excellent labor safety activities, we also support the awarding of the Excellent Safety Manager Minister of Health, Labor and Welfare and the Green Cross Award by administrative authorities.

TOPIC 4 Industrial Safety Course

We started the Tokyo Industrial Safety Course in cooperation with the Petroleum Association of Japan and the Japan Petrochemical Industry Association to foster leaders who will promote safety in their respective companies in the petroleum and chemistry industries, and opened the sixth course in FY 2019, which graduated 28 students. We renovated the contents of the lectures based on changes in the social environment and worked on this program as a course for discussing safety and practicing safety activities. We invited a university professor as chief, administrative officers, and people from companies as lecturers to create a program that offers a Q&A session with lecturers and allows participants to learn specialized knowledge through student discussions on issues to reinforce their practical skills. The number of the students who have completed the Industry Safety Course is about 180, and the Course is now a vehicle for sharing information and exchanging opinions about safety across the boundaries of companies.

TOPIC 5 Lecture on Preventing Tsunami Disasters

With the Petroleum Association of Japan and the Japan Petrochemical Industry Association, on October 28, 2019 we co-hosted a lecture on preventing tsunami disaster associated with "World Tsunami Awareness Day, November 5" resolved in the United Nations. Lectures on "Situation and responses during and subsequent to the 2018 Hokkaido Eastern Iburu earthquake" (members) and "Disaster preparedness efforts in Chiba Prefecture" (administrative authority) were given to communicate physical and psychological preparedness for tsunami and other natural disasters in an easily-to-understand manner for members of all three organizations.



Activity Report: Chemicals Management Committee

[Chemicals Management Department]

MESSAGE

Toward the Establishment of More 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.

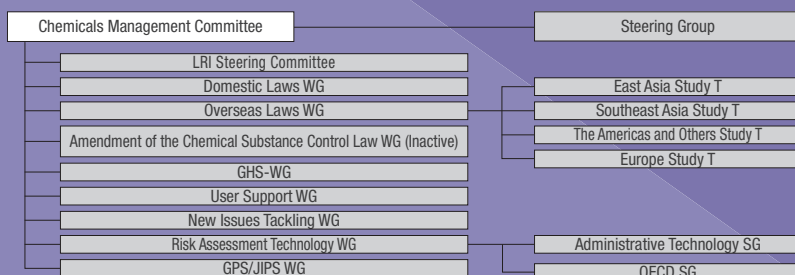
Committee Chairman, **MIYOSHI Yoshihiro**

[Managing Executive Officer, Sumitomo Chemical Co., Ltd.]



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.



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

FOCUS

Compliance with Domestic Chemicals law and our activities

The revision of the “Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.” (the Chemical Substances Control Law: CSCL) was promulgated in 2017 and came into complete force in FY 2019. For this revision, JCIA collected the opinions of the member companies related to the operation of the act and submitted them to the administrative authorities. Our working group is also advancing the revision work for “Chemical Substances Control Law Q&A Notification Guidebook for Personnel in charge of law-related duties” compiled by JCIA in cooperation with the authorities. We are also continuing with our efforts in rational risk management for the risk assessment of existing chemical substances and the dialogues with the authorities regarding future law revisions.

We also released information on the “Perfluorooctanoic acid (PFOA) and its salts and PFOA-related substances,” which were deemed appropriate to be specified as class I specified chemical substance in July last year, and supported our members. 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) is expected to undergo ordinance revision this fiscal year, and we supported the members’ submission of their opinions to administrative authorities from the review

stage for the selection of criteria for substances to be regulated and the candidate substances in three-ministry joint meetings. We quickly collected information on the trends of chemicals regulations, 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, and provided the members with information.

Compliance with Overseas Chemicals laws and Regulations

We identified and collected the latest chemical management regulation trends in each foreign country, transmitted information to members, and collected the opinions of member companies to offer them to the administrative authorities. As an example, we addressed the issues related to the law revisions in Asian countries (China, Taiwan, India, Philippines, and Vietnam), polymer registration in South Korea and Europe, and the burden of TSCA risk assessment costs in the U.S. In cases where the impact is not limited to Japanese companies, we are working with local industry associations (ACC, Cefic, SCIC, etc.) to create position papers to support regulatory advocacy, and we are appealing to local authorities through these local industry associations. In addition, we are exchanging information and opinions with the Ministry of Economy, Trade and Industry and request their involvement when necessary.

The Trend of GHS and Actions

The national standard for the United Nations document GHS (Globally Harmonized System of Classification and Labelling of Chemicals), JIS Z7252:2019 (Classification of Chemicals Based on GHS), and JIS Z7253:2019 (Communication of Hazard Classification Information of Chemicals Based on GHS), which JCIA has been involved in the drafting of the revisions since FY 2017, were announced on May 25, 2019. The contents are in accordance with the 6th revision of the UN GHS. The transitional

period for the SDS provision and labeling based on the pre-revised JIS is until May 24, 2022, three years after the announcement of the revised JIS. A list of errata was announced for JIS Z7253:2019 on January 15, 2020. The “GHS Compliance Guidelines” compiled by JCIA were revised along with JIS Z7252 and JIS Z7253, and the revisions were issued by the Japanese Standards Association on June 12. However, we started working on the issuance of an expanded edition for the JIS revision and to respond to the members’ opinions provided after the initial issuance.

TOPICS

TOPIC 1 2019 JIPS Award

The JIPS Award is commendation given by JCIA for achievements in JIPS activities. In the fourth JIPS award given this year, the Grand Prize was won by Kao Corporation, and Excellence Award was won by Sumitomo Chemical Co., Ltd., reported at a Chemicals Management Committee meeting held on March 13, 2020.



Grand Prize: Kao Corporation, Mr. HAYASHI, Ms. KAMEYAMA, and Mr. YAMANE from the left



Excellence Award:
Sumitomo Chemical
Co., Ltd., Mr. MOTONAGA

TOPIC 2 Change in GSS Publication Method

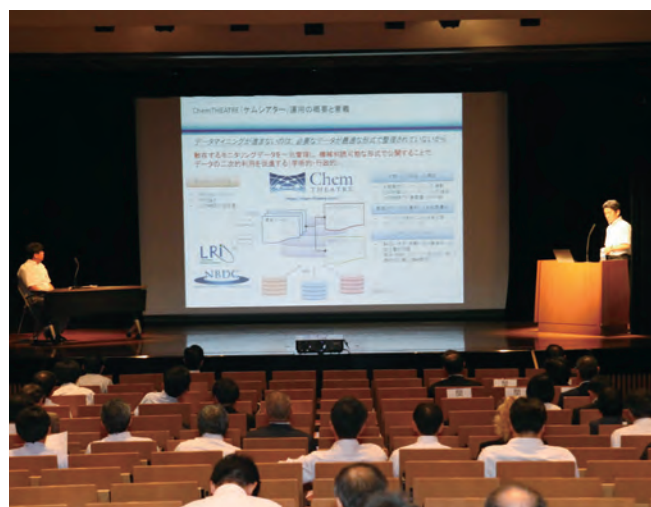
JCIA has continued to support the creation of the GPS/JIPS Safety Summary (GSS). Previously, the created GSS was published on the ICCA GPS Chemicals Portal (“ICCA Portal”) and the links were published on JCIA BIGDr, but ICCA closed the ICCA Portal in September 2019 and decided to delegate GSS-related activities to the association in each country. In Japan, GSS is useful as a communication tool. The creation of GSS is still promoted as a voluntary JCIA activity and directly published on JCIA BIGDr.

TOPIC 3 LRI (LRI Award, Adoption of New Challenges, Utilization of Research Findings, and LRI Annual Meeting)

The LRI is an initiative started by the ICCA as global voluntary activities and is promoted in cooperation with the chemical industry associations in Japan, United states, and Europe. In FY 2019, JCIA LRI adopted six

new research projects from the development and evaluation of new risk assessment methods or system, research on the effects of chemicals on children, elderly people and those with gene disorders, and issues needing urgent action. The findings from LRI research are introduced at regular annual meetings. In FY 2019, we had approximately 161 participants at the meeting held at the Tokyo Shoken Building in Tokyo on August 30.

In addition to the results reports of completed research, the progress of ongoing research was introduced during the poster session. In the symposium held at the same time, a heated discussion was held on the topic of “regulatory science in Reiwa.” JCIA commends researchers who produced excellent achievements by awarding the JCIA LRI Awards. Award winners in FY 2019 of the 5th Japanese Society of Toxicology LRI Award and the 4th Japanese Society for Alternatives to Animal Experiments LRI Award were Professor KOTAKE Yaichiro of Hiroshima University’s Graduate School of Biomedical and Health Sciences and Professor SOZU Takashi of the Department of Information and Computer Technology, Faculty of Engineering, Tokyo University of Science, respectively.



TOPIC 4 Response to Risk Management Issues (New Topic)

Annexes of REACH, an EU regulation on the registration, evaluation, certification, and restriction of chemicals, were updated; we are now required to assess risks for substances with nanoforms starting January 2020. Substances with nanoforms need assessment from a perspective different from common chemical risk assessment, and in particular must be properly grouped according to properties in order to avoid a great increase in the number of tasks. To address this concern, the new technical working group launched a nanoform EU regulation study group to understand the risk assessment requirements for nanoform substances as per the EU REACH annex revisions and extract questions and tasks.

Activity Report: Technical Affairs Committee

[Technical Affairs Department]



MESSAGE

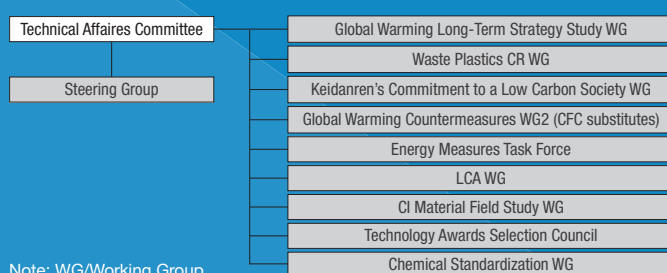
Efforts of climate change measures and recycling society

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 also set up a working group focusing on chemical recycling, which is where the chemical industry can contribute. As the Technical Affairs Committee, we will strive toward achieving these goals by further deepening communication among member companies.

Committee Chairman, **TSUNASHIMA Hiroshi**
[Managing Executive Officer, Mitsui Chemicals, Inc.]

Activity Outline

We are actively participating in the Commitment to a Low Carbon Society and activities concerning global warming and a recycling society in Japan as well as abroad, and are tackling various tasks. In addition, we are playing a key role in the prevalence activities in the area of cLCA products and the activities of the ICCA Energy and Climate Change Leadership Group, and promoting technology through the JCIA Technology Awards to emphasize that the chemical industry is a solution provider in the fight against global warming.



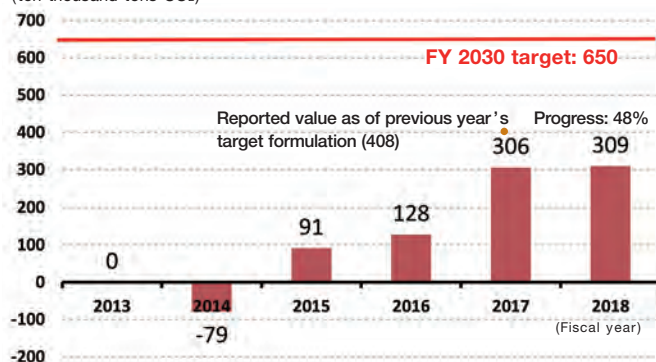
Note: WG/Working Group

FOCUS

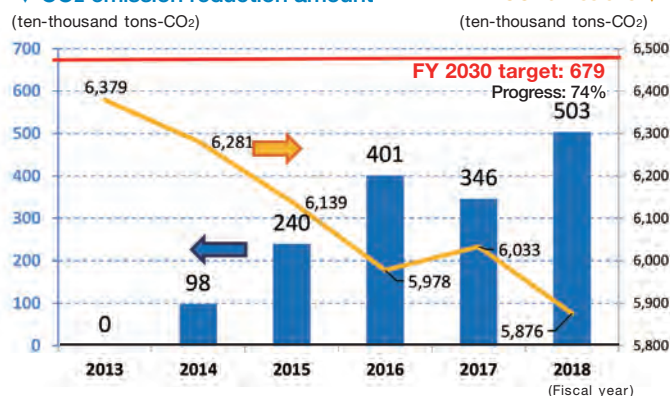
The Result of the Commitment to a Low Carbon Society in FY 2018 and the Progress toward New FY 2030 Target Achievement

JCIA started efforts to reduce CO₂ emission at the time of the Voluntary Action Plan on the Environment under Keidanren, and has continued the efforts since 2013 as “the Commitment to a Low Carbon Society.” With the successful continuous attainment of the initial target, the governing body decided on a new target for FY 2030 (FY 2013 set as the base year) in March 2019 with a higher reduction goal and with the addition of an absolute amount target in addition to the conventional BAU ratio index. If the production volume increases under management only by BAU index, the absolute amount of CO₂ emissions can increase even if the BAU target is achieved. Therefore, an absolute amount index is necessary in order to apply a brake to CO₂ emissions. In addition, if the production volume varies under the management only by absolute amount index, we cannot simply explain the efforts for reduction as an industry, and therefore the BAU index is necessary. Introducing these two management indexes makes a big change in the way that the efforts of the chemical industry are shown in a plain way. In the Commitment to a Low Carbon Society follow-up survey in FY 2019 (FY 2018 performance), we attained a reduction of 3.09 million tons (final target: 6.5 million tons) using the BAU index and 5.03 million tons (final target 6.79 million tons) using the absolute amount index, showing steady progress toward achieving the challenging goals. Additionally, we changed the survey form system to improve the accuracy of investigation data starting this fiscal year and to create a framework that further encourages participating companies to take voluntary action. We are working on communicating this new approach to all the members.

■ Transition of BAU-based CO₂ emission reduction amount (ten-thousand tons-CO₂)



▼ CO₂ emission reduction amount

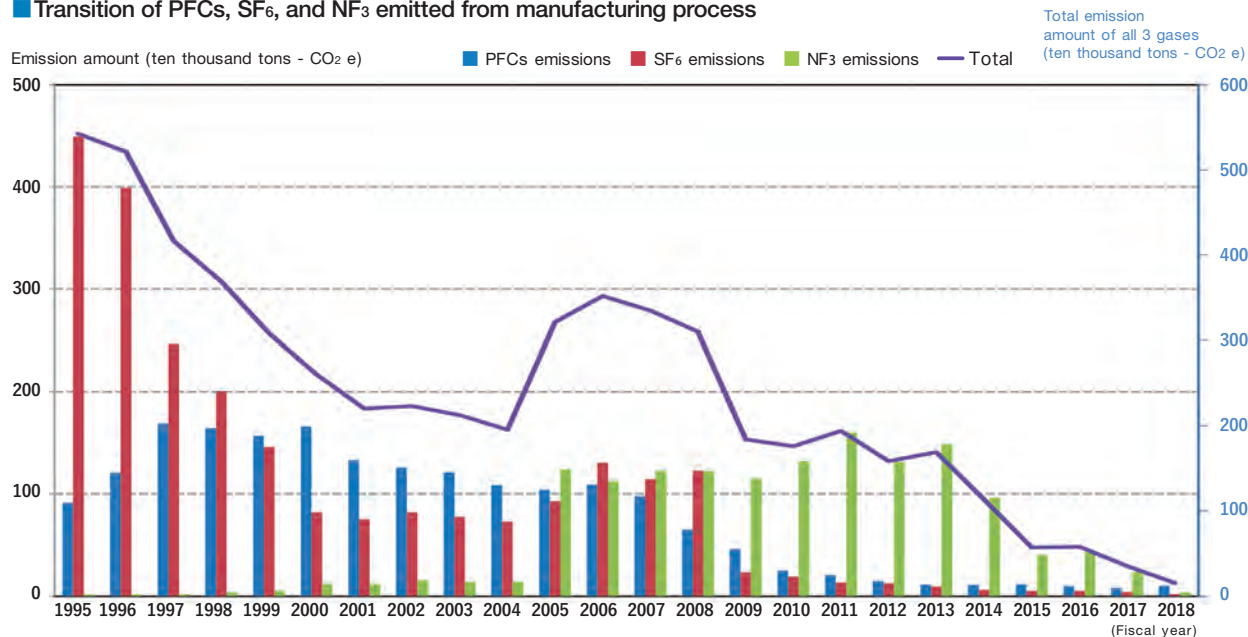


Three Gases Substituted for CFC Achieved the Target for FY 2030

In the emission reduction activities concerned with the manufacturing of PFCs, SF₆ and NF₃, gasses all shown to have a global warming effect, NF₃ intensity was reduced by 97% in terms of per emission rate to production when compared to that of FY 1995, which means that the industry has achieved 85% of the reduction target for FY 2030 for two consecutive years. PFCs and SF₆ achieved the target for FY 2030 (90% reduction) in 2010 and 2009, respectively, and have been kept at 90% or better since then. The reduction in NF₃ progressed significantly, and therefore all three gases have now seen an over-90% reduction in emissions.

	2017 achievement	2018 achievement	2020 target	2030 target
PFCs	97%	96%	90% or higher	90% or higher
SF ₆	99%	99%	90% or higher	90% or higher
NF ₃	89%	97%	60% or higher	85% or higher

Transition of PFCs, SF₆, and NF₃ emitted from manufacturing process



TOPICS

TOPIC 1 51st JCIA Technology Award Special Technology Prize Winner Receives the Ichimura Prize in Industry

Every year, JCIA recommends winners of the JCIA Technology Awards for the Ichimura Prize in Industry, sponsored by the Ichimura Foundation for New Technology. In FY 2019, under the recommendation of JCIA, Kureha Corporation's "Manufacturing technology development and new market exploitation of high-molecular-weight polyglycolide" won the 52nd Ichimura Prize in Industry for Distinguished Achievement. We will continue to contribute to the development of the Japanese economy and society through the commendation of innovative and excellent technologies and products.

TOPIC 2 Prevalence Activities of cLCA

In February 2012, JCIA formulated guidelines for calculating the contribution to CO₂ emission reduction. In October 2013, JCIA cooperated with ICCA and WBCSD to issue practical global guidelines for evaluating and reporting the contribution to GHG emission reduction. In March 2014, we issued a compilation of cases in compliance with the global guidelines, but the evaluation was based on the contribution as of FY 2020. Therefore, for more than half of all the cases, we are planning to publish the calculated values in FY 2020 and update the contribution calculation evaluation target year to FY 2030.

TOPIC 3 Activities of Waste Plastics and Chemicals Recycling WG

Under the Technical Affairs Committee, JCIA launched a working group for reviewing "what the chemical industry should do for chemical recycling of waste plastics" (Waste Plastics CR-WG) with the participation of nine companies, five organizations, and two government agencies in November 2019 and started activities in coordination with relevant industries. While the production and use of plastics is expected to increase along with global economic growth, currently we are seeing marine pollution by waste plastics as an urgent global challenge. Therefore, in order to contribute to thoroughgoing waste management, combating global warming, and the establishment of a recycling society, we are advancing the activities to establish the techniques, demonstrations, and social systems for the chemical recycling of waste plastics from the perspectives of "building a system where the chemical industry can fully play the role as a solution provider" and "developing a society where the social added value of recycled plastics is recognized." Recovering waste plastics (resource recycling) is also expected to contribute to a certain degree of diversifying materials and reducing overseas dependency, both of which are issues affecting the Japanese chemical industry.

Activity Report: International Activities Committee

[International Affairs Department]



MESSAGE

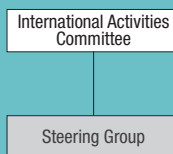
Gathering Information on Trade Issues and Dealing with Unfair Trade

After the enforcement of TPP11 and Japan-EU EPA, while further expansion of regional economic partnerships like RCEP are expected to follow Japan-U.S. Trade Agreement, we are seeing Brexit, U.S.-China trade friction, WTO reform, and other unsettling moves that can upset the trade order. In such trying times, we will promote reflecting the opinions of the chemical industry in cooperation with the government with regard to economic partnership agreements, corrections of unfair trade policies and measures, trade remedies, and requests for tariff reform. In addition, through various channels including ICCA activities and interaction with the business associations of China and South Korea etc., we will carry out the activities that contribute to realize a sustainable society and the development of the chemical industry.

Committee Chairman, **ASADA Koji** [Executive Officer, DIC Corporation]

Activity Outline

The Committee deals with our Association's international affairs, including grasping the trade issues related to the chemical industry, providing information to member companies, approaching authorities to reflect the opinions of the domestic chemical industry, strengthening the relationships with the chemical industries of China and South Korea and other overseas chemical-related organizations through dialogues, and participating in the administration of the International Council of Chemical Association (ICCA).



FOCUS

The 5th Japan-China Chemical Industry Conference

On July 9 and 10, 2019, the 5th Japan-China Chemical Industry Conference with the China Petroleum and Chemical Industry Federation (CPCIF) was co-hosted by JCIA/JPCA in Tokyo. We welcomed a total of 150 participants, including Mr. Tannowa, Chairman of JCIA, and Mr. Morikawa, Chairman of JPCA, and people related to the Japanese chemical industry, as well as Mr. Li, Chairman of CPCIF, and people engaged in the chemical industry in China, for an active opinion exchange. At the General Assembly, the current status of the chemical industry in Japan and China, as well as efforts to tackle marine plastic problem, were shared. In the subcommittee meetings, after sharing Responsible Care efforts in Japan and China, the Japanese side explained the current situation of plastic recycling and a material flow diagram on marine plastic waste and the innovations by Japanese companies regarding plastic waste. The Chinese side introduced solutions to the plastic waste problem practiced in China. In the afternoon of July 10, a Japan-China chemical industry policy dialogue was held between METI and the Ministry of Industry and Information Technology in China, in which member companies of JCIA also participated for information exchange.



TOPIC

The 10th Japan-South Korea Annual Meeting

In February 2020, the 10th Japan-South Korea annual meeting (JCIA-Korea Chemical Industry Council) was held in South Korea. The participants exchanged opinions and discussed the latest trends in chemicals management and the activities related to climate change and energy in Japan and South Korea. South Korean participants gave presentations on the Act on Registration, Evaluation, etc. of Chemicals (K-REACH) and the current state of the Korea Emission Trading Scheme (K-ETS) for GHG reduction. The Japanese participants gave presentations on the amendment of the Chemical Substances Control Law and the response to Korean regulations, Japanese efforts regarding marine plastic problem, and JCIA-LRI research aid activities. The participants shared opinions during the sessions. We also gave a presentation about the climate change policies of the Japanese government, chemical industry's vision on global warming countermeasures, JCIA's commitment to a low carbon society, and cLCA (carbon-Life Cycle Analysis) of chemical products in Japan, and exchanged opinions. Through intercommunication during this meeting, we intend to deepen the relationship with the Korea Chemical Industry Council (KOCIC) and to create a relationship that can serve the development of both countries' chemical industry.



Activity Report: Economy and Tax System Committee

[Department of Business/Economic Information]



MESSAGE

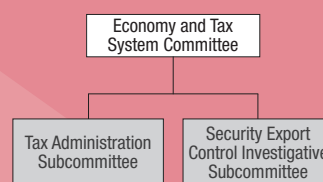
Aiming for New Growth in the Chemical Industry Amid the Rapidly-changing Social Climate

The chemical industry has been greatly impacted by the prolonging U.S.-China trade war, natural disasters, and the spread of COVID-19 in terms of corporate performance. The calamities have also brought to light the issues in the Japanese economy, specifically, the supply chains being dependent on certain regions and the delay in digitalization. Globalization of company activities requires regulation reform and tax system reform in response to the demands of the times such as an intensification of Export Control Regulations and international taxation, and action for environmental issues compatible with economic growth. For further growth of the chemical industry in Japan, we are working to offer opinions on various restrictions and systems including tax systems, and transmitting useful information for business operation.

Committee Chairman, **KASUYA Toshiro** [Executive Officer, AGC Inc.]

Activity Outline

With the aim to further develop the Japanese economy and for the purpose of realizing active economic circulation, various efforts are being made towards deregulation, revision of the tax system, and other regulatory actions. Under these circumstances, we are working to consolidate and share information on the economy and tax systems that can lead to suggestions and requests for policy change that can further the future growth of the chemical industry. We also respond to current topics regarding economics and management as necessary.



FOCUS

FY 2020 Activities for Requesting a Revision to the Tax System

This fiscal year, in the light of the foreseeable economic situation, we set the following five items as important requirements centering on policy support that promotes capital investment and R&D without being impacted by corporate performance: (i) **Establishment of tax systems for promoting capital investment;** (ii) **Preservation and relaxation of the R&D tax system;** (iii) **Reduction of the burden of clerical affairs for working style reform;** (iv) **Fundamental review of global warming taxes;** and (v) **Exclusion of gasoline tax and petroleum and coal tax.**

As a result, the consumption tax filing period was extended to alleviate the burden of clerical affairs and the group aggregation system and electronic versions of forms were introduced. We will continue to request policy support for promoting R&D and capital investment as one of the foundational elements of value creation.

TOPICS

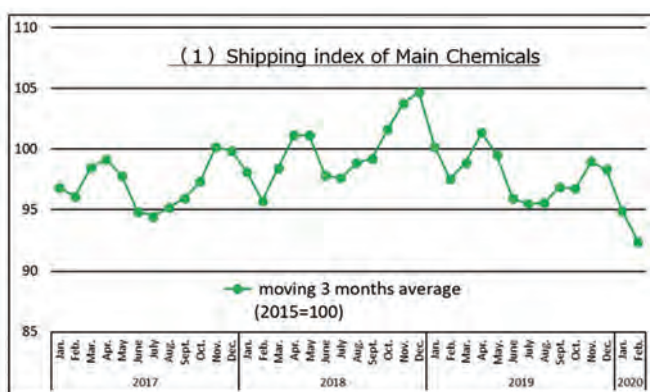
TOPIC 1 Security Export Control seminar

The Security Export Control Investigative Subcommittee cooperates with a department in charge in the Ministry of Economy, Trade and Industry and holds seminars regarding the importance of security export control, the key points in voluntary export control system maintenance, and penal regulations. The seminar covers fundamental core topics and is utilized as part of an instruction course by companies engaged in export control business. The seminar sessions were held in Tokyo and Osaka again in FY 2019 and received good feedback.



TOPIC 2 English Version JCIA Indexes Disclosed to the Public

As indexes of representing the current standing of the chemical industry, we have disclosed JCIA Indexes to members. Now, we created an English version for overseas entities and published it on our English website. Monthly releases of spreadsheet data of shipment indexes by major chemical product, demand industry production indexes, and shipment indexes by area of major chemical products are posted on the website along with comments.



https://www.nikkakyo.org/content_en/nikkakyo_index01

TOPIC 3 Response to Global Current Affairs

We provided opinions to Japanese and overseas administrative authorities from the perspective of sound development of the global chemical industry in terms of potential tightening of import controls triggered by the U.S.-China trade war, the national security issue between Japan and South Korea deriving from the exclusion from the "white list," and EU taxonomy, TCFD, and other movements in the financial and capital markets to guide funds for sustainable growth.

Activity Report: Labor Committee

[Labor Department]



MESSAGE

Continuous Promotion of Human Resources Fostering Support to Member Companies

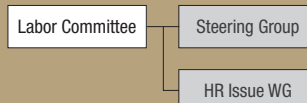
In FY 2019, we set up a working group for personnel issues and discussed the theme of “human resources strategy for the chemical industry in 2030 and on.” For human resource development, we continue providing leadership training for chemical plant production site leaders and are planning a “Human Resources & Labor Affairs staff development seminar” for FY 2020 intended to cultivate HR leaders. We are also continuously collecting and communicating labor information such as wages and bonuses. We will move ahead on providing member companies with useful information and supporting human resources development.

Committee Chairman, **MATSUI Akio**

[Executive Officer, Senior Vice President, Human Capital Development, Kao Corporation]

Activity Outline

We provide human resources & labor affairs staff development seminars, production site leadership training, and HR working group-driven human resources development otherwise not possible by member companies on their own, as well as offer opinions to the government regarding labor-related measures and law revisions through the Keidanren. We also periodically exchange information with labor union organizations to maintain good relationships.



Note: WG/Working Group

FOCUS

HR Working Group Activities Report Meeting

Starting September 2019, 15 young HR employees from different member companies deliberated on the topic of “HR strategy of chemical firms in 2030 and on” during HR WG activities and reported to the Labor Committee at the end of January 2020. The HR WG themes of FY 2019 was selected with the intention of “creating an opportunity for young, future-bearing HR staff to hold unrestrained, candid discussions on HR strategies for the entire industry from the perspective of the need to secure personnel for the entire industry for 2025 and later years, when the labor population will noticeably shrink due to the aging society and low birthrate.” Activities were conducted in two groups, each organizing a proposal after a total of 18 meetings including general assemblies and subcommittee meetings: Group 1 organized a proposal on HR strategies for recruitment and subsequent development and Group 2 organized a proposal on HR strategies upon introducing AI (including HR technologies).



In preparing the proposals, the groups interviewed and exchanged opinions with the Material Industry Division of METI, Human Resources Policy Office of METI, and People Analytics & HR Technology Association. In particular, Group 1 deepened discussions on “mechanisms to improve employees’ motivation” while Group 2 proposed “an HR management

with a focus on the individuals and the visualization of HR information by utilizing HR technology” for the purpose of creating an “innovation-oriented” organization that Japanese chemical manufacturers’ HR departments should aim for. If you are interested, you can find the full details of the proposals on the JCIA website in the member section.

TOPIC

Leadership Training for Chemical Plant Production Site Leaders

The leadership training for chemical plant production site leaders is JCIA’s cross-organizational training program that started in FY 2016 to (i) cultivate leaders at production sites of chemical plants (especially for disaster-preventive maintenance, labor safety, and chemicals management) and (ii) support SMEs that are experiencing difficulty educating employees in-house only. The program has been provided a total of 16 times between 2016 and 2019 to 312 companies with 612 participants. It has been well-received as providing the participants with a valuable experience of opinion exchange with field leaders of other companies.



FY 2019 Training Sessions (Date & No. of participants)

- 1st session (Tokyo) Jun. 4 19 companies 43 participants
 - 2nd session (Tokyo) Jul. 8 21 companies 28 participants
 - 3rd session (Osaka) Sept. 24 20 companies 39 participants
 - 4th session (Osaka) Oct. 23 18 companies 27 participants
- For FY 2020, we are considering to hold “lecturer-dispatching type” training sessions not only in Tokyo and Osaka but in other regions.

Activity Report: Public Relations Committee

[Public Relation Department]



MESSAGE

For the Sound Development of the Chemical Industry

While the chemical industry is contributing significantly to the improvement of people's lives and economic development, it is also important to expand the social awareness of the benefits of chemical industry in order to secure able people for the next generation and for a continued sound and sustainable development. We will strive to improve further presence of chemistry and the chemical industry by cooperating with members, academia, and the media, as well as promoting social understanding through information release and holding events.

Committee Chairman, **TAMADA Hideo**
[Managing Executive Officer, Ube Industries, Ltd.]

Activity Outline

We communicate information on environmental, health, and safety efforts conducted by the Japanese chemical industry to society and the various activities of JCIA. We are also working on further improving the presence of the chemical industry by efforts such as the "Dream Chemistry 21" project to communicate the value and attractiveness of chemistry to youth who will lead the next generation.

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

Labour Committee

Public Relations Committee

FOCUS

"Kids' Chemistry Experiment Show" Hands-on Class

JCIA, the Chemical Society of Japan, the Society of Chemical Engineers Japan, and the Japan Association for Chemical Innovation founded the Dream Chemistry 21 Committee in 1993 and hold a "Summer Kids' Chemistry Experiment Show" every year to cultivate an interest in and understanding of chemistry in children, who bear the future. The 27th show in 2019 was held at the Science Museum in August, garnering about 7,200 visitors. In 2013, the four organizations established October 23 as "Chemistry Day" and the week including October 23 as "Chemistry Week." The "Chemistry Day Kids' Chemistry Experiment Show" is held as an attempt to increase contact points between the general public and the chemical industry. The Dream Chemistry 21 Committee widely called out to firms and organizations involved with chemistry to participate in the exhibition, and in 2019, the event was held at Kobe International Exhibition Hall with about 3,200 visitors. The Committee conducts other activities for the promotion of "Chemistry Day" through supporting various events held during the Chemistry Week.



TOPICS

TOPIC 1

What? Why? Science Experiment Lab

We hold a professional "Science Experiment Lab" every year for 1st graders to 4th graders under the guidance of school teachers for the purpose of having children experience the wonder of science and deepen their understanding of science through thinking about why things happen, and therefore encouraging them to take an interest in chemistry and chemical products. In 2019, about 400 elementary school students participated in the event, held twice a day five times during the year at the Science Museum. We hope that more children develop an interest in chemistry through observation and experiments, and grow up to be able personnel for the next generation.



TOPIC 2 Introduction of Japanese Chemical Industry and JCIA

Every year we publish "Chemical Industry of Japan in Graphs," which explains the statistics of Japanese chemical industry in an easy-to-understand manner using numerical data and graphs. This publication is well received by both members and external organizations. Additionally, we publish a "JCIA Annual Report" every year to foster the understanding of JCIA's activities. We also release an e-mail newsletter called "JCIA PR Network" once or twice a month primarily to inform the general affairs and public relations staff of member companies of seminars, events, and reports organized by JCIA.

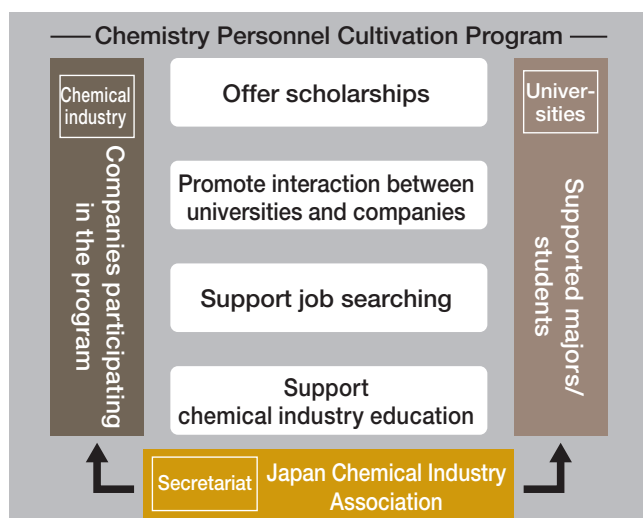


JCIA Development of Human Resources

The chemical industry plays an important role in the development of society. The cultivation of Human Resources is critical for the continued development of the industry. JCIA has undertaken its efforts to ensure and develop Human Resources that takes the road to the chemical industry through evangelizing chemistry to the next generation, providing courses on the chemical industry and offering grants to doctorate candidates at universities. Additionally, we support the development of talent that will become the bedrock of the chemical industry and contribute to the realization of a sustainable society by holding seminars and training sessions for member companies about the required disaster-preventive maintenance, occupational health and safety, and chemical management at factories and research institutions.

Chemistry Personnel Cultivation Program (University and Post-graduate Schools)

JCIA supports aggressive post-graduate students, who majors in chemistry to enhance their talent with doctorates required by the chemical industry in the form of the Chemistry Personnel Cultivation Program. In FY2019, JCIA supported 19 majors by providing scholarships to 28 doctoral candidates. Moreover, JCIA held a workshop to present their research study by the supported students (in October) and held seminars by participating JCIA member companies to present the companies' activities to the students (in January in Tokyo and Osaka) and to support interaction between supported majors and the participating companies for their job searching in the industry. And to increase the interest of students in the chemical industry, chemical industry courses were given by experts in the industry at Kobe University, Osaka City University, and Tohoku University.



Dream Chemistry 21 Business (Educational Activity for Primary, Middle, and High School Students)

The Dream Chemistry 21 Committee, which consists of the JCIA, the Chemical Society of Japan, the Society of Chemical Engineers Japan, and the Japan Association for Chemical Innovation, runs events for all age groups in order to convey the wonderment of chemistry to children and increase their interest in chemistry. We hold a “Kids’ Chemistry Experiment Show” hands-on class and “What? Why? Science Experiment Lab” in which primary school children can run experiments and build things, and an all-Japan competition called “Chemistry Grand Prix” where middle and high school students pit their chemistry skills against each other. In 2019, 3,983 students competed in the Chemistry Grand Prix. Students representing Japan at the International Chemistry Olympiad, where high school students from 80 countries worldwide compete in chemistry disciplines, are mostly chosen from the students who perform the best at the Chemistry Grand Prix.



Chemical Risk Forum and Risk Assessment Seminar

JCIA has been running a Chemical Risk Forum since 2008 as a development class for practitioners that perform risk evaluations of chemicals. Lectures are given to learn about basic risk evaluation, education of tools required to perform risk evaluations, and training in domestic and international regulatory trends. In FY2019, 73 companies participated. In order to improve convenience for participants of seminar, in addition to in-person classes as in FY2018, we invited them to attend Webinars. A total of 10 Webinars were held. The Webinars proved to be a hit with several dozen people attending via the internet. The Webinars will be even more useful in FY2020.

We also held a “Risk Assessment Seminar to Handle the Amended Industrial Safety and Health Law” in Tokyo and Osaka. For the purpose of efficiency, we held the Tokyo seminar in conjunction with the 4th Chemical Risk Forum and the Osaka seminar with related industry groups (a total of 49 people attended). We also held a Risk Assessment Seminar in conjunction with the 6th Chemical Risk Forum as a seminar to teach a more practical risk assessment technique, which includes a method to evaluate the risk of mixture of chemicals.

Dangerous Goods Transportation Class

We again held the annual Safety Management Class for Dangerous Goods Transportation in November FY2019 in Tokyo and Osaka.

As commercial law was also amended and the responsibility of the shipper is becoming ever more greater, experts from government authorities and related groups explained in detail knowledge and information about international rules, airfreight, sea freight, land freight, methods to test dangerous goods, and so forth. In 2020, there have been serious accidents overseas while dangerous goods were in transit and even in Japan the number of overland accidents involving fires and leaks has not decreased. We plan to continue this class moving forward to convey information and regulations related to the transportation of dangerous goods.



■ List of Classes and Seminars by JCIA to Develop Talent

Class/Seminar	Purpose	Frequency
Security Export Control seminar	Introduction to export of products and manufacturing technologies based on the Foreign Exchange Act.	Twice a year (Tokyo and Osaka)
Improvement Training for Chemical Plant Production Site Leaders	Develop and improve the skills of front-line supervisors, and consider disaster-preventive maintenance, occupational health and safety, and risk assessment at production sites.	Three times a year
Issue and Spread Guidelines and Best Practice Guide	Develop leaders and experts involved in disaster-preventive maintenance 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 and Osaka)
Chemical Risk Forum (includes webinar)	Cultivate practitioners who manage chemicals based on risk (a series of educational seminars held 10 times a year)	June to March 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 to 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 information related to IT security.	Once 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 seven seminars held every second year).	May to February the following year (total of seven 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 how to perform risk evaluation that includes compound materials using BIGDr.Worker.	Twice a year
Risk Communications Training	Improve communication skills of company lecturers involved in regional dialogue.	Once a year

Three JCIA Awards

The 44th 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	Showa Denko K.K. Oita Complex
JCIA Annual Safety Award First Prize	KUREHA CORPORATION Head Office Annex DIC Graphics Corporation, Kyushu Production Section
JCIA Annual Special Safety Award First Prize (Research institutes)	Mitsui Chemicals, Inc. Sodegaura Center
JCIA Annual Special Safety Award First Prize (SME establishments)	Lion Chemical Co., Ltd., Fine Chemical division



MAGAI Taichi, Oita Complex Representative Corporate Officer Showa Denko K.K.

Thank you very much for the honorable Safety Award Grand Prize. At Oita Complex, we see the policy of "safety over everything in the aim of no accidents or disasters" as top priority. Each and every employee takes responsible action. "Thoroughly taking ordinary precautions" and working together with many partners, we promote safety activities, facility maintenance, training and education, and health management. Taking this award as encouragement, we will continue and further improve activities that foster our safety culture and strive to prevent accidents and disasters. GO・A・N・ZE・N・NI (=Let's be safe.)

The 52nd 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	Sumitomo Chemical Co., Ltd.	Development and industrialization of propylene oxide process using cumene as a low-environmental load, byproduct-free manufacturing process
Special Technology Prize	Kuraray Co., Ltd.	Development and industrialization of plastic scintillation fiber
Environmental Technology Prize	Asahi Kasei Construction Materials Corporation	Development of NEOMA® Foam and NEOMA ZEUS® high-performance plastic foam insulation material



IWANAGA Kiyoshi, Petrochemicals Research Laboratory Fellow, Sumitomo Chemical Co., Ltd.

I feel very honored to receive the Grand Prize. We have established the propylene oxide process using cumene as an eco-friendly, energy-saving, byproduct-free industrial technique, aiming to contribute to global production through licensing. We are really grateful that this point was recognized. We will continue to strive toward creating solution techniques that contribute to a sustainable society, drawing on the diverse technologies that a general chemical manufacturer has.

The 14th 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
RC Grand Prix Award	Daikin Industries, Ltd., Yodogawa Plant	Promoting machine safety with the participation of all employees, focusing on the contrivance and people
RC Jury's Special Award	Kowa Sangyo Co., Ltd. (Nippon Kayaku Group)	The activities to build a Safety culture in Kowa Sangyo Co., Ltd.
	JSR Corporation, Kashima Plant	Promotion of pipe outer surface corrosion countermeasure project
RC Outstanding Award	Sumitomo Chemical Co., Ltd., Misawa Works	Promotion of Sumitomo Chemical's sustainability through RC activities at Misawa Works
	Sekisui Chemical Co., Ltd. Manufacturing Infrastructure Enhancement Center, Safety & Environment Group	Development of human resources to take the initiative in safety activities
	Toray Industries, Inc.	Promotion of fire prevention projects
	Mitsui Chemicals, Inc., Nagoya Works	Activities for reducing environmental impact at Mitsui Chemicals Nagoya Plant
RC Award for Effort	Asahi Kasei Pharma Corporation Pharmaceuticals Production & Technology Center, Fuji Pharmaceuticals Plant	Measures against odors from process waste
	Osaka Soda Co., Ltd., Amagasaki Plant	Initiatives for Security and disaster prevention and occupational health and safety



Daikin Industries, Ltd. TONOO Mitsuru, Yodogawa Plant, Chemical Division, EHS Department

Thank you very much for the RC Grand Prix Award. We have promoted risk assessment with the participation of all employees to ensure machine safety. The equipment designers and on-site management acquired safety assessor qualifications and incorporated machine safety in equipment design and developed a system that reflects the operators' opinions in the PDCA cycle. Taking this award as encouragement, we will further improve our activities to "develop site-rooted systems and people" and create safe equipment and a safe and workable workplace.

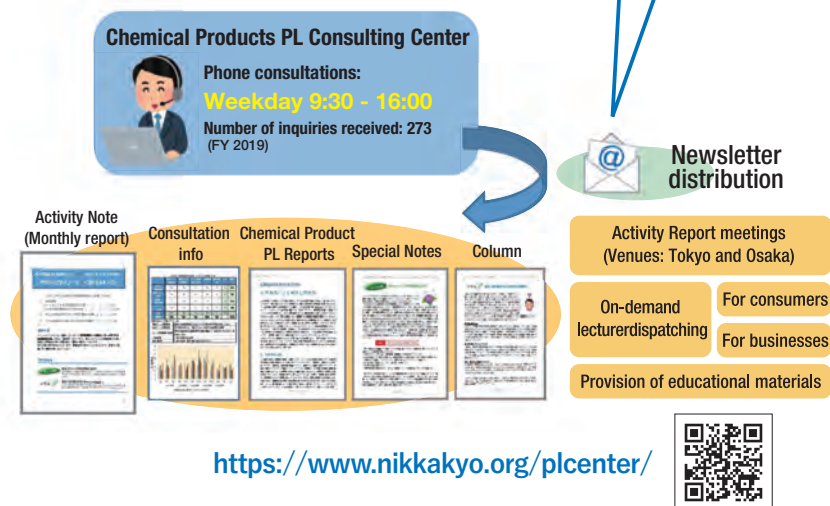
Introduction of Chemical Products PL Consulting Center

When the Product Liability Act was enacted in 1994, the Chemical Products PL Consulting Center was established as an independent organization within JCIA due to the need to create an out-of-court dispute settlement system that draws on specialized knowledge of each product field. With an expert view, the Center responds to a wide range of consultations regarding chemical products that are sought from not only consumers, but also from businesses and Consumer Affairs Centers nationwide. The Center also puts efforts into the provision of information that can help prevent chemical product accidents as well as educational activities such as booklet publications and on-demand lectures. The Center provides two types of on-demand lectures: one called "For the Prevention of Accidents Caused by Chemical Products" intended for general consumers and another called "Product Liability (PL) Act and Product Safety"

intended for businesses. The details of the lecture are catered according to the request of the client wherever possible. The Center's activities are publicized on the website in the "Activity Note" monthly

reports. The Activity Note includes the details of all consultations and the responses thereto, and other related information such as Chemical Product PL Reports, Special Notes, and Topics.

The Center provides the latest information, including the publication of the Activity Note, in newsletters. To subscribe, send an e-mail to: PL@jcia-net.or.jp



Information Distribution Services Provided by JCIA

JCIA distributes the following mail magazines for member companies and associations that wish to receive them. Please contact the relevant office for a new delivery request.

Ankan-Net (Safety and Environment Net)

We deliver information that requires publicity such as notice and communication from each ministry and agency, guidelines regarding environmental safety, and regulatory information to member companies and associations registered in the Ankan-Net (Safety and Environment Net). (Up to two addresses per company/association)

Contact: Environment and Safety Department

RC net

"RC Net" in which member companies of Responsible Care Committee are registered delivers information of RC-related events such as Responsible Care activities report meeting, and for member relations events and study meetings for members provide the holding schedule and recruits participants.

Contact: Responsible Care Department

Chemical Standardization Information Net

We provide the information about seminars of relevant associations regarding chemical standardization, and movements at home and overseas, as well as distribute the holding schedule of seminars provided by JCIA to the member companies and associations registered in the Chemical Standardization Information Net. Information is released twice a month, and the current number of subscribers is approximately 100.

Contact: Technical Affairs Department

Chemical Management Net

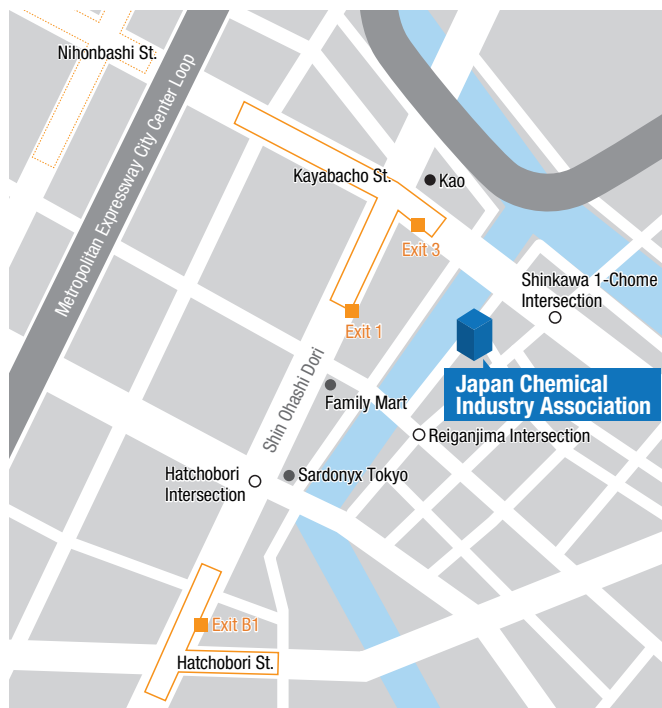
We provide the latest information about the movement of the regulations and laws at home and overseas regarding chemicals management, and deliver the holding schedule of seminars provided by JCIA to the member companies and associations registered in the Chemicals Management Net.

Contact: Chemicals Management Department

PR Net

We distribute the holding information of the activity report meetings, seminars, and Children's Science Experiment Class of JCIA regularly, and distribute the guide and implementation reports of event activities such as experiment show to those who belong to member companies or associations that wish to receive them (mainly persons in charge of general affairs or public relations).

Contact: Public Relations Department



Access Information

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

Contact

General Affairs Dept.

TEL 03-3297-2550
 FAX 03-3297-2610

International Affairs Dept.

TEL 03-3297-2576
 FAX 03-3297-2612

Labor Dept.

TEL 03-3297-2563
 FAX 03-3297-2615

Environment and Safety Department

TEL 03-3297-2568
 FAX 03-3297-2606

Responsible Care Department

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

Dream Chemistry 21 Committee

TEL 03-3297-2555
 FAX 03-3297-2615

Public Relations Dept.

TEL 03-3297-2555
 FAX 03-3297-2615

Department of Business/Economic Information

TEL 03-3297-2559
 FAX 03-3297-2615

Technical Affairs Dept.

TEL 03-3297-2578
 FAX 03-3297-2615

Chemicals Management Dept.

TEL 03-3297-2567
 FAX 03-3297-2612

SDGs Office

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

Chemical Products PL Consulting Center

TEL 03-3297-2602
 FAX 03-3297-2604

ANNUAL REPORT 2020

JCIA



Japan Chemical Industry Association

7F Sumitomo Fudosan Rokko Building, 1-4-1 Shinkawa, Chuo-ku, Tokyo 104-0033
 TEL 03 3297 2555 FAX 03 3297 2615



<https://www.nikkakyo.org/>

October 23 is
Chemistry Day



Nikka-chan:
 JCIA's official character



This report was printed using processes and materials that are considerate of the environment. Energy-saving UV printing was used, as has low-VOC ink that releases only tiny amounts of volatile organic compounds into the atmosphere.

Glossary

Term/abbreviation	Official name	Explanation
ACC	American Chemistry Council	
AEC	ASEAN Economic Community	One of three pillars that supports "ASEAN Community" together with "ASEAN Policy and Security Community (APSC)" and "ASEAN Society and Culture Community (ASCC)." Intended to make 10 ASEAN member countries (Indonesia, Cambodia, Singapore, Thailand, The Philippines, Brunei, Vietnam, Malaysia, Myanmar and Laos) one economic sphere.
AEM-METI	ASEAN Economic Ministers and METI (Ministry of Economy, Trade and Industry)	Japan-ASEAN Economic Ministers meet to discuss economic cooperation and coordination between Japan and ASEAN.
AMEICC	ASEAN Economic Ministers and METI Economic and Industrial Cooperation Committee	Japan-ASEAN Economic and Industrial Cooperation Committee. Substructure of Japan-ASEAN Economic Ministers meeting.
AIST-MeRAM	National Institute of Advanced Industrial Science and Technology -Multi-Purpose ecological Risk Assessment and Management Tool	AIST's multi-purpose ecological risk assessment and management tool. Software for managing the ecological risk assessment of chemical substances.
AJCSD	The ASEAN-Japan Chemical Safety Database	Database established by Japan and each ASEAN country based on the agreement of ASEAN Economic Ministers and METI Economic and Industrial Cooperation Committee (AMEICC) Working Group on Chemical Industry (WG-CI).
AOTS	The Association for Overseas Technical Cooperation and Sustainable Partnerships	An organization for human resources development in developing countries to promote technical cooperation through training, expert dispatch and other programs.
APEC	Asia-Pacific Economic Cooperation	Framework for economic cooperation by 21 economies in the Asia-Pacific region.
APRCC	Asia Pacific Responsible Care Conference	Asia Pacific Responsible Care Conference. International Meeting held with the aim of transmission of information and commoditizing of RC activities in each country toward sustainable development of the chemical industry in the Asia-Pacific region. Meeting held by APRO.
ARCP	ASEAN Regulatory Cooperation Project	
APRO	Asia Pacific Responsible Care Organization	Established in 2003 as an organization for supporting APRCC. Currently Japan is the chair.
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	CO ₂ emissions which are given by multiplying CO ₂ amount per production volume in the base year by production volume in the target year.
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.
Cefic	European Chemical Industry Council	
chem SHERPA	Chemical information Sharing and Exchange under Reporting Partnership in supply chain	Information transmission scheme of chemicals in products
chem THEATRE	Chemicals in the THEATRE [Tractable and Heuristic E-Archive for Traceability and Responsible-care Engagement]	A platform developed by NAKAYAMA Kei PhD et al. of Ehime University Center for Marine Environmental Studies for amassing and visualizing environmental pollutant monitoring data.
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.
COP25	The 25th session of the Conference of the Parties	The UN Climate Change Conference COP 25 held in Madrid, Spain from December 2 through December 15, 2019.
CP&H LG	Chemical Policy and Health Leadership Group	An organization within ICCA.
CPCIF	China Petroleum and Chemical Industry Federation	
E&CC LG	Energy and Climate Change Leadership Group	An organization within the ICCA.
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.
EU taxonomy	_____	Principles and standards that set forth economic activities that contribute to the EU sustainability policy for the purpose of helping the navigation of funds to be used for economic activities that substantially alleviate climate change.
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.

Term/abbreviation	Official name	Explanation
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.
GSS	GPS Safety Summary	Safety summary document
ICCA	International Council of Chemical Associations	
ICCA GRC	International Council of Chemical Associations Global Regulatory Cooperation	Organization within the ICCA CP&H LG that promotes the introduction of efficient and reasonable management systems by creating more consistent requirement items for regulatory authorities and the industrial field while satisfying the high criteria for human health and environmental safety based on a global policy for regulatory cooperation approved by the ICCA in 2015.
ICCM	International Conference on Chemicals Management	International conference on the management of chemical substances.
JaIME	Japan Initiative of Marine Environment	Japan Initiative of 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	
LRI	Long-range Research Initiative	Voluntary 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).
NF3	Nitrogen trifluoride	Nitrogen trifluoride is a type of greenhouse gas.
OECD	Organization for Economic Co-operation and Development	Organization for Economic Cooperation and Development
PFCS	Perfluorocarbons	Perfluorocarbons such as CF ₄ and C ₂ F ₆ .
PRTR	Pollutant Release and Transfer Register	A system for notifying the release and transfer of chemical substances. It is a system for collecting, aggregating, and publicizing data on a diverse range of hazardous chemical substances being released to the environment or transferred off-site as waste, bringing together information about which chemicals are being released, where, how much, and by whom.
PS	Product Stewardship	Product stewardship is product management based on the concept of all parties involved with any part of a product's life cycle, namely, the manufacturer, retailer, user, and disposer, taking responsibility in reducing the product's environmental impact.
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	Wide-regional free trade agreement by a group of nations RCEP mainly consisting of ASEAN (16 countries composed of Indonesia, Singapore, Thailand, Philippines, Malaysia, Brunei, Vietnam, Myanmar, Laos, Cambodia, Japan, China, Korea, India, Australia, and New Zealand)
RCLG	Responsible Care Leadership Group	An organization within ICCA.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals	Rules concerning the registration, evaluation, authorization, and restriction of chemicals
SAICM	Strategic Approach to International Chemicals Management	It was enacted and adopted at the International Conference on Chemicals Management in 2006 to achieve this goal.
SDGs	Sustainable Development Goals	Seventeen goals until 2030 concerning poverty, starvation, energy, climate SDGs change, industry and innovation as agendas of 2030 for sustainable development were adopted by the UN in November 2015. Successor of Millennium Development Goals.
SDS	Safety Data Sheet	Safety data sheet for chemical substances that includes information on the safety of the target chemical substance. It has been conventionally called the "MSDS" in Japan.
SF6	sulfur hexafluoride	Sulfur hexafluoride is a type of greenhouse gas.
SWEEs	Integrated Score-based Workplace Exposure Estimation system	Exposure assessment tool developed by Professor TOKAI of Osaka University Graduate School of Engineering for the estimation of exposure in the work environment.
TCFD	Task Force on Climate-related Financial Disclosures	In response to a G20 request, this task force was established by the Financial Stability Board (FSB) for disclosure of climate-related information and to review how to take action as financial institutions.
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.
TPP11	Trans-Pacific Partnership or Trans-Pacific Strategic Economic Partnership Agreement	In February 2016, 12 countries signed the TPP Agreement, but in January 2017, the United States declared its withdrawal, so this agreement was basically agreed at the TPP Ministerial Meeting held in Vietnam in November 2017. In March 2018, Ministers from 11 countries signed it, and it became effective in December.
TSCA	Toxic Substances Control Act	Hazardous substance restriction act. A US law on the restriction of manufacturing hazardous chemical substances. Established in 1976. Intended to restrict the unreasonable risk of chemical substances against human health and the environment. Under this act, a person who newly manufactures or imports chemical substances must notify the EPA (Environmental Protection Agency). The EPA reviews and can impose necessary conditions (including prohibitions).
WBCSD	World Business Council for Sustainable Development	Conference organized by businesspersons who gathered from 33 countries in 1991 to prepare the Earth Summit in 1992. Currently, it is composed of 170 international companies from more than 35 countries bridging 20 industrial sectors. It continues activities about three pillars of economic growth, ecological balance, and social progress.
WS	Workshop	A workshop is a hands-on, interactive group learning method where participants do not unilaterally listen to the lecturer, but rather join discussions and take part in experiences.
WG	Working Group	Working group organized for promoting investigations and planning of particular problems.
WSSD2002	World Summit on Sustainable Development	An international goal agreed at the World Summit on Sustainable Development held in Johannesburg in 2002, which aims "to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment."