JCIA Annual Report 2018





Top Message



The world currently faces dramatic changes. As social infrastructure evolves in conjunction with tremendous developments in the Internet of Things, artificial intelligence, and e-commerce, sectors such as the automotive industry are said to be entering a once-ina-century period of upheaval. At the same time, a host of issues threatens efforts to create sustainable societies, including global warming, environmental problems such as marine debris and microplasticswhich have become hot topics recently, particularly in Europe—resource and energy issues, food problems, and poverty.

I firmly believe that the chemical industry has limitless potential to contribute to the creation of sustainable societies by resolving such issues. To harness such potential and play our part in building a stronger presence for the chemical industry, the Japan Chemical Industry Association (JCIA) will engage in the following activities:

1. Strengthening Operational and Product Safety

Based on the responsible care (RC) ethic, chemical industry is required to consider the environment, health, and safety throughout the entire product life cycle, from development and manufacture of chemicals to their use, consumption, recycling, and disposal. Ensuring operational safety and security in

particular is a key issue. Unfortunately, serious accidents have continued to occur in recent years, and continuous efforts should be required. Based on the Principles of JCIA regarding the Environment, Health and Safety, we will continuously ensure the forward-looking perspective that efforts to secure safety create new value, and implement various initiatives to this end.

Our efforts to secure product safety will continue to encourage and instil risk-based chemical management aimed at sustainable development.

2. Helping to Create New Value and Build Sustainable Societies

The chemical industry has provided new value to various sectors and supported their growth through innovative materials and technologies. We believe that, in addition to supporting the growth of a wide range of industries by creating new value, we have a mission to contribute to the creation of sustainable societies.

To create new value, we will encourage the development of outstanding and innovative science, technology, and products through the development of technologies contributing to low-carbon societies and the carbon cycle, and by continuing to offer JCIA Technology Award. To build a sound platform for creating new value, we will also continue to offer opinions to relevant government authorities and other interested bodies regarding trade issues such as tariffs and anti-dumping measures and international consistency in regulations relating to chemical management, in the aim of ensuring equal footing in the international business environment.

To contribute to the creation of sustainable societies. I believe that the key point is using RC activities as a platform to specifically address the sustainable development goals adopted by the United Nations. We will communicate the chemical industry's role as a provider of solutions to issues facing society by compiling case studies to publicize and raise the presence of efforts being made by our member companies.

Marine debris and microplastics have become a huge

topic in recent years, and we recognize that there is much speculation around these issues given the vagueness of the facts, such as actual volumes. We are currently preparing to establish an initiative by five groups including JCIA that will determine policies for addressing them, and communicate Japan's position and ideas to the International Council of Chemical Associations and other relevant bodies.

3. Enhancing Public Communications

I regard public communications as an important part of RC activities. In building a stronger presence for the chemical industry, I also believe it is vital to promote sound understanding of the industry's importance and tremendous potential to as many people as possible. We will continue to take every opportunity to enhance public communications.

Specifically, we will continue to publicize chemical industry efforts and results through the activities of the dialogue working group under our Responsible Care Committee, which promotes dialogue with local communities and citizens, publication of JCIA Annual Report, Dream Chemistry 21 campaign activities, and other initiatives.

We face challenges that sometimes conflict with one another, namely creating sustainable societies while fulfilling essential human desires for greater convenience and comfort. Reconciling these issues is no easy matter. It requires wisdom and innovation in various forms, but also presents a chance to demonstrate the limitless potential of chemistry. These issues cannot be resolved without the power of chemistry.

As chairman, I will lead JCIA to maximize the limitless potential of the chemical industry. Thank you for your continued support.

The Japan Chemical Industry Association

Chairman





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

The 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.

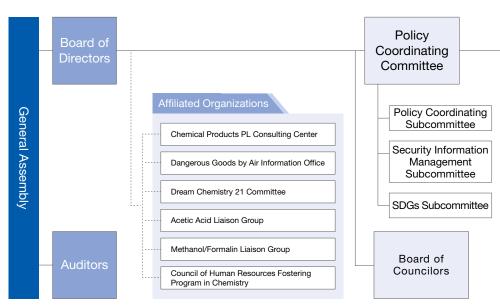
Activities

- 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.

From April 1 to March 31 of the following year

Organizational Chart of JCIA

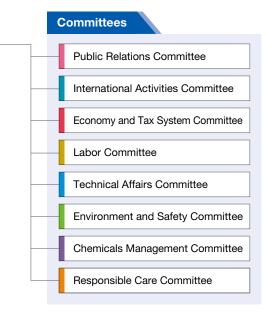
The Japan Chemical Industry Association (JCIA) is organized into the General Assembly, the Board of Directors, Auditors, the Policy Coordinating Committee, the Board of Councilors, business-specific committees and the Secretariat. The General Assembly, which is composed of all JCIA member companies and 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.

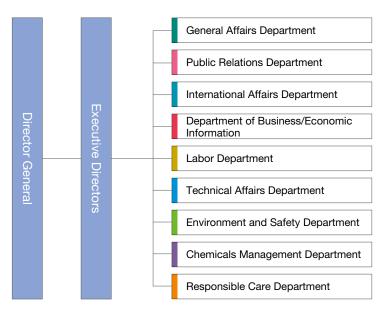


Board members of the Japan Chemical Industry Association (as of July 1, 2018)

Chairman (Representative Director)	Tsutomu Tannowa	(Mitsui Chemicals, Inc., President & CEO)
Vice Chairman (Representative Director)	Kohei Morikawa	(Showa Denko K.K., Representative Director, President)
Vice Chairman (Representative Director)	Hideki Kobori	(Asahi Kasei Corp., President & Representative Director, Presidential Executive Officer)
Vice Chairman (Representative Director)	Masanobu Suzuki	(Nippon Kayaku Co., Ltd., President, Representative Director)
Vice Chairman (Representative Director)	Teiji Koge	(Sekisui Chemical Co., Ltd., President & Representative Director)
Director	Yuzuru Yamamoto	(Ube Industries, Ltd., President & Representative Director)
Director	Kazuhiko Ishimura	(AGC Inc., Director Chairman)
Director	Michitaka Sawada	(Kao Corporation, Representative Director, President & CEO)
Director	Mamoru Kadokura	(Kaneka Corporation, Representative Director, President)
Director	Masakazu Tokura	(Sumitomo Chemical Company, Limited, Representative Director & President)
Director	Misao Fudaba	(Daicel Corporation, Representative Director, President & CEO)
Director	Shinsuke Yoshitaka	(Denka Company Limited, Representative Director, Chairman, Board of Directors)
Director	Toshinori Yamamoto	(TOSOH CORPORATION, Representative Director, President)
Director	Hiroshi Yokota	(Tokuyama Corporation, Representative Director, President and Executive Officer,)
Director	Akiharu Kobayashi	(NOF CORPORATION, Executive Chairmant)
Director	Yujiro Goto	(NIPPON SHOKUBAI CO., LTD., Member of the Board, President)
Director	Kenji Sukeno	(FUJIFILM Holdings Corporation, President and Chief Operating Officer and Representative Director)
Director	Toshikiyo Kurai	(MITSUBISHI GAS CHEMICAL COMPANY, INC., President and Chief Executive Officer)
Director	Hitoshi Ochi	$(\mbox{Mitsubishi Chemical Holdings Corporation, Representative Corporate Executive Officer, President and CEO)} \label{thm:equiv}$
Director General	Hiroshi Watanabe	The Japan Chemical Industry Association
Executive Director	Akihiro Ichimura	The Japan Chemical Industry Association
Executive Director	Shigeki Nagamatsu	The Japan Chemical Industry Association
Executive Director	Hideaki Makino	The Japan Chemical Industry Association
Executive Director	Shinoi Sakata	The Japan Chemical Industry Association
Auditors	Yoshiyuki Nakanishi	(DIC Corporation, Chairman of the Board of Director)
Auditors	Mikishi Takamura	(TOAGOSEI CO., LTD., President and Representative Director)

Organizational Chart of JCIA Secretariat





Establishment of the Vision of the **Chemical Industry for Sustainable Development**

The Japan Chemical Industry Association (JCIA) set up a Task Force in January 2017 to discuss the contribution to sustainable development goals (SDGs) adopted by the UN in 2015 and established visions of the chemical industry toward SDGs. In May 2017, JCIA publicized the visions and simultaneously revealed the basic idea that the chemical industry provides a wide variety of materials with different functions as a leader in the achievement of SDGs. Additionally, it should believe in the infinite possibility and continue its challenge toward innovation, which will ultimately lead to SDGs.

Furthermore, in March 2018, JCIA organized the SDGs Working Group under the General Operation Committee of the Board of Directors in order to start activities in earnest from July 2018. The SDGs Working Group will hold seminars and publicize case examples (successively publicized from October through the website) for the purpose of supporting the member companies for the achievement of SDGs. In addition, JCIA will support to disseminate SDGs to Asian Chemical Industries and actively promote the contribution of the chemical industry through the useful information sharing with stakeholders.

Chemical Industry's Visions for Sustainable Development

Strengths of Japanese Chemical Industry

Innovation through technologies and products

Solution for safety and environment

Further Evolution

From "Reactive" to "Proactive"From "Responsibility" to "Contribution"

VISION 1 We CREATE INNOVATION through the power of chemistry and contribute to healthy and abundant life of people

- Take the initiative in innovation, as solution provider, for realization of sustainable society through materials and substances in cooperation with the entire value chain.
- 2 Working more closely with stakeholders leading innovation such as government or universities, aim at creating yet-to-berealized breakthrough innovation as well as that leads to evolution of entire society (ex. Super Smart Society).
- 1 Not just continuously improving our production processes, aim at achievement of ultimate energy and resource saving and zero emission processes.

VISION 2 We SUPPORT WORLDWIDE INITIATIVES for solving environmental and safety issues

- Building on the experience of Japanese chemical industry, support environment and safety related activities in production through supporting overseas subsidiaries of Japanese companies and overseas chemical industry associations.
- Disseminate Responsible Care® concept to emerging countries.
- 3 Communicate information on proper use and risks of chemicals worldwide so that chemical products are properly used and contribute to abundant life of people.

VISION 3 We PROMOTE CONTRIBUTION of chemical industry through DIALOGUE with STAKEHOLDERS

- Ocmmunicate precise risk information of chemicals to entire value chain to share proper use of them.
- Share the value of sustainability conscious products such as environmental protection and waste reduction with stakeholders and reflect it to product development.
- Promote investment to environment, society and governance by obtaining understandings of investors, through dialogue, about contribution of chemical industry to sustainable development and its unlimited future potential.

Three JCIA Awards

The 42nd JCIA Safety Awards

The prevention of labor accidents is one of the most important issues facing JCIA Environment and Safety Committee. These awards are conferred on chemical facilities that have achieved high-level safety records and are implementing excellent safety initiatives that serve as models for the industry in order to publicize those facilities. Their achievements are announced in the safety symposium and at The National Industrial Safety and Health Conference as the best practices of JCIA member companies.

Awards	Members
JCIA Annual Safety Award Grand Prize	Sumitomo Chemical Co., Ltd., OHE WORKS (including Sumika Assembly Techno)
JCIA Annual Safety Award First Prize	Showa Denko HD Yamagata Co., Ltd., Main Office Plant
JCIA Annual Safety Award Special Prize	Japan Elastomer Co., Ltd., Oita Plant Sumitomo Chemical Co., Ltd., Tsukuba District Institute Nippon Steel & Sumikin Chemical Co., Ltd., General Institute (Kisarazu District)

JCIA Annual Safety Award Grand Prize

Sumitomo Chemical Co., Ltd. OHE WORKS (Including SUMIKA Assembly Techno)



General manager: Mr. Nobuyuki Kobayashi

Thank you very much for the JCIA Annual Safety Award Grand Prize. The basic concept of our company is as follows: We give top priority to safety. The OHE WORKS has promoted the safety approach in consideration of plant features and the local environment under this concept. We consider it very important to integrate the intentions of all employees, continuously make efforts toward the target, and create a good cultural climate in order to advance forward with our safety activities. We will approach the task so that we can continue to have no accidents and no disasters by taking this award as a good opportunity to implement our concepts. Your kind opinions and advice will be appreciated. Be safe!

The 50th Annual JCIA Technology Awards

JCIA Technology Awards recognize companies that have contributed to the progress of the chemical industry and the economy through the development and industrialization of outstanding chemical technologies. JCIA awards the Grand Prize, the Special Technology Prize, and the Environmental Technology Prize for selected excellent achievements.

Awards	Members	Awarded Themes	
Grand Prize	Mitsubishi Tanabe Pharma Corporation	Diabetes therapeutic agent Canagliflozin born by inversion idea	
Special Technology Prize	Toray Industries Inc.	Development of photosensitive electric-conductive paste for touch panel	
Environmental Technology Prize	Tosoh Corporation	Development of heavy metal treatment agent TX- 55 for wastewater	

Grand Prize

Mitsubishi Tanabe Pharma Corporation



Executive Director Drug Development Division Manager: Mr. Hiroaki Ueno

It is a great honor for us to receive the Grand Prize for the Annual JCIA Technology Awards. We are very proud that the type 2 diabetes therapeutic agent for eliminating excessive sugar from of body, Canagliflozin, was highly evaluated and where R&D was promoted with an unrivaled idea at that time, which resulted in the successful commercialization as the first in the world. We will hereafter strive to further devote ourselves to the creation of innovative medicines in order to contribute to the development of the Japanese chemical industry and the health of people throughout the world.

The 12th JCIA Responsible Care® (RC) Awards

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.

Awards	Members	Awarded Themes	
RC Grand Prix Award	Kao Corporation SCM Division	Environmental load reduction activities in Kao Production Plant	
RC Jury's Special Award	Asahi Kasei Corporation Moriyama Works	Biological diversity preservation activities aiming symbiosis with local community	
	Kureha Corporation Manufacturing & Technology Division Iwaki Factory	Continual communication with local community through "CSR Local Dialogue Meeting" and communication paper "Nishiki"	
RC Outstanding Award	Sumitomo Chemical Co., Ltd. Ehime Works	A proposal from frontline employees for effective and efficient chemical risk assessment	
	Group of Nippon Kayaku Co., Ltd. CET (Clean.Eco.Technology) Project Team	Improvement of wastewater treatment technology and training of engineers through launching companywide wastewater treatment project	
	Mitsui Chemicals, Inc. Logistics Division Safety & Quality Department	Responsible Care activity on logistic safety and quality in Mitsui Chemicals -with our wish of Safety-	
	Mitsubishi Chemical Corporation Voluntary Management Promotion Project Team of "Mitsubishi Chemical Special Controlled Substances"	Voluntary management improvement prevent theft and misuse of chemicals	

RC Grand Prix Award

Kao Corporation SCN Division



Engineering Develop Center Basic Technology Group: Mr. Yongzhan Chen

It is a great honor to receive the RC Grand Prix Award and we will work even harder. We have reported RC activities for 40 years since the oil shock of the 1970s to nowadays as we focused on saving energy and reducing waste. We consider the activities of our senior staff and the current approaches as highly evaluated. Although the CO2 reduction activities and environmental measures do not have an immediate effect, we understand that climate change is surely a negative symptom of human activities, and we will make efforts to continuously promote good manufacturing activities, which will be capable of contributing to a reduction in the environmental load through life cycles on the basis of safe and stable operation using the good opportunity of this award.

Activities of JCIA: FY 2017

The following summarizes the main activities of JCIA in FY 2017. We operate both in Japan and overseas.

- ICCA Steering Committee Meeting/ Belgium (Brussel)/ Int'l Affairs Dept.
 - PSM (process safety metric) course/Tokyo Metropolitan/ ■RC Dept P10
 - ICCA Board of Directors Meeting/USA (Colorado Springs)/ ■Int'l Affairs Dept. P23
 - The 1st Risk Assessment Seminar on the revised Industrial Safety and Health Act / Tokyo Metropolitan/ Chem. Mgt. Dept. P13
 - The 2nd Chemical Risk Forum/Tokyo Metropolitan/ Chem. Mat. Dept.
 - The 2nd Risk Assessment Seminar on the revised Industrial Safety and Health Act /Osaka Prefecture/■Chem. Mgt. Dept. P13
 - The instruction course for the leaders of production worksites / Tokyo Metropolitan/■Labor Dept
 - JCIA Symposium 2017 (The Three JCIA Awards lecture) /Tokyo Metropolitan/■ Industry Dept. ■RC Dept. ■Env't & Safety Dept.

- Summer vacation, Chemical-experiment shows for children/Tokyo Metropolitan/■PR Dept. P20
- The 1st in 2017 The promotional lecture on the importance of standardization / Tech. Dept.
- The instruction course for the leaders of production worksites /Tokyo Metropolitan/■Labor Dep
- Publication of JCIA Annual Report 2017/■PR Dept. P20
- Publication of LRI Annual Report 2017 published/■Chem. Mgt. Dept.
- LRI Annual meeting/Tokyo Metropolitan/■Chem. Mgt. Dept. P15
- Publication of Responsible Care News Summer Edition / RC Dept. North America Trade Seminar/Tokyo Metropolitan/■Int'l Affairs Dept.



Summer vacation, Chemical experiment shows for children













- Singapore Chemical Meeting/ Singapore/■Int'l Affairs Dept.
- Thailand Chemical Meeting/Thailand (Bangkok)/ ■Int'l Affairs Dept
- The 1st Chemical Risk Forum /Tokyo Metropolitan/ Chem. Mat. Dept.
- Publication of Responsible Care News Spring Edition /■RC Dept.
- "Ideal State of Chemical Industry Providing Solution to Global Warming problem" developed/ Tech. Dept. P18
- The Three JCIA Awards Ceremony/Tokyo Metropolitan/ ■Env't & Safety Dept. ■RC Dept. ■Tech. Dept. P6
- The 1st Children's science experiment class/Tokyo Metropolitan/



The Three JCIA Awards Ceremony

- Sendoff party for the Japanese delegates to the International Chemistry Olympiad in Thailand /Tokyo Metropolitan/■PR Dep
- GPS/JIPS Seminar (Basic Part) /Tokyo Metropolitan Chem. Mgt. Dept.
- The Japanese Society of Toxicology (JSOT), LRI award, Award ceremony/ Kanagawa Prefecture/ Chem. Mgt. Dept. P15
- The 3rd Chemical Risk Forum/Tokyo Metropolitan/ Chem. Mgt. Dept.
- The 2nd Children's Science Experiment Class /Tokyo Metropolitan/ PR Dept. P20
- The 3rd Risk Assessment Seminar on the revised Industrial Safety and Health Act /Tokyo Metropolitan/■Chem. Mgt. Dept. P13
- Interaction and study meetings co-hosted for RC members /Osaka Prefecture/■RC Dept. P10
- RC Lecture Meeting co-hosted by Japanese chamber of commerce, Bangkok (to local companies and management)/Thailand (Bangkok)/
- RC Workshop co-hosted by Japanese chamber of commerce, Bangkok. (to local companies and employees)/Thailand (Bangkok)/ ■RC Dept. P09
- Council of Human Resources Fostering Program in chemistry, symposium 2017/Tokyo Metropolitan/ Labor Dept.



Chemical Grand Prix Award Ceremony

- Workshop on usage of BIGDr. worker/Tokyo Metropolitan/ Chem. Mgt. Dept.
- Risk Communication workshop/Chiba Prefecture/■RC Dept
- The 4th Chemical Risk Forum/Tokyo Metropolitan/■Chem. Mgt. Dept. The instruction course for the leaders of production worksites /Tokyo Metropolitan/Labor Dept
- E&CC LG meeting/Germany (Essen)/ ■Tech. Dept. P23
- The 3rd Children's science experiment class /Tokyo Metropolitan/
- Chemical Grand Prix 2017 awards Ceremony/Tokyo Metropolitan/■PR Dept.
- Publication of FY2018 Requesting a Revision on Tax system/ Industry Dept. P16
- Top Meeting Concerning Public-private council for safety measures in the manufacturing industry /Tokyo Metropolitan/■Env't & Safety Dept.

- Publication of JCIA Annual Report Reference Materials (Japanese Version) /
- Industrial safety course: sessions 1 to 4/Tokyo Metropolitan/ ■Env't & Safety Dept. P12
- The 4th Risk Assessment Seminar on the revised Industrial Safety and Health Act/ Osaka Prefecture/ Chem. Mat. Dept. P13
- Fostering Program of Human Resources in chemistry, Industry-academia exchange meeting 2017/ Tokyo Metropolitan/ Labor Dept. P22
- The 3rd Japan China Chemical Industry Conference/Tokyo Metropolitan/ ■Int'l Affairs Dept. P19
- Interaction and study meetings for RC members/Aichi Prefecture/ RC Dept. P10
- The 5th Chemical Risk Forum /Tokyo Metropolitan/ Chem. Mgt. Dept.
- JCIA Seminar/Tokyo Metropolitan/■ General Affairs Dept
- Chemistry Day, Chemical-experiment show for Children /Osaka Prefecture/ ■PR Dept. P20
- E&CC LG Adaptation Workshop/Austria (Vienna)/ Tech. Dept.
- ICCA General Assembly, Board of Directors Meeting, and Steeing Committee Meeting /Austria (Vienna)/ ■Int'l Affairs Dept. P23
- ASEAN Regulatory Cooperation The 3rd Workshop/Singapore/ ■Chem. Mgt. Dept. P24
- Asian Pacific Responsible Care Organization (APRO) Conference/Singapore/ RC Dept. P24
- Asian Pacific Responsible Care Conference (APRCC) /Singapore/■RC Dept. P24
- Lecture for preventing damage from Tunami/Tokyo Metropolitan/ ■Env't & Safety Dept. P12
- Publication of ICCA: Greenhouse gas emission reductions enabled by products from the chemical industry (Ecofys report) disclosed/ Tech. Dept.



Lecture for protection against tsunami disasters

- Publication of JCIA Annual Report Reference Materials (English Version) (only Web Version)/ ■RC Dept
- Communication with consumers for RC/Osaka Prefecture/■RC Dept. P10
- ASEAN Chemical Substance Training /Tokyo Metropolitan/■RC Dept. ■Chem. Mgt. Dept.
- Industrial safety course: sessions 9 to 11 (including special lecture)/Tokyo Metropolitan/ Env't & Safety Dept. P12
- The 8th Annual meeting of Korea and Japan./Korea (Seoul)/■Int'l Affairs Dept.
- RC Activity Report Meeting/Tokyo Metropolitan/■RC Dept. P10
- ICCA Capacity Building/Vietnam (Hanoi) Chem. Mgt. Dept. P23
- The 7th Chemical Risk Forum/Tokyo Metropolitan/■Chem. Mgt. Dept.
- Publication of video tape introducing concept and activities of cLCA/
- RC Activity Report Meeting /Osaka Prefecture/■RC Dept. P10
- Publication of Responsible Care News Autumn and Winter Version/■RC Dept.
- Publication of ICCA: cLCA 17 Case studies summaries (in English)/ Tech. Dept.
- ICCA: cLCA 17 Case studies Technical reports (in English)/ Tech. Dept.
 - RC Lecture Meeting co-hosted by Jakarta Japan Club (for local companies and management)/Indonesia (Jakarta)/ RC Dept. P09
 - RC Workshop co-hosted by Jakarta Japan Club (for local companies and employees)/Indonesia (Jakarta)/ RC Dept. P09
 - E&CC LG meeting/Canada (Calgary)/ Tech. Dept. P23
 - CP&H LG meeting/USA (New Orleans)/ ■Chem. Mgt. Dept. P23
 - Industrial Safety Course Completion Ceremony /Tokyo Metropolitan/ ■Env't & Safety Dept. P12
 - The 10th Chemical Risk Forum /Tokyo Metropolitan/

 Chem. Mgt. Dept.
 - The 6th Children's science experiment class /Tokyo Metropolitan/ ■PR Dept. P20
 - Seminar for the revised Chemical Substances Control Law/Tokyo Metropolitan/ Chem. Mgt. Dept. P14













- o QSAR/in silico Seminar for Chemicals Management (Basic Part) Tokyo Metropolitan/■Chem. Mgt. Dept.
- RCLG meeting (Responsible Care Leadership Group)/Singapore/ ■RC Dept. P24
- CP&H LG Conference/India (New Delhi)/ ■Chem. Mat. Dept. P23
- ICCA Joint Capacity Building TF Meeting/India (New Delhi)/ ■Chem. Mgt. Dept.
- Industrial safety course: sessions 5 to 8/Tokyo Metropolitan/ ■Env't & Safety Dept. P12
- The 6th Chemical Risk Forum/Tokyo Metropolitan/■Chem. Mgt. Dept.
- RC Local Dialog meeting/ Yamaguchi Prefecture/ RC Dept. P10 Lecture for dengerous substances transportation/Tokyo
- Metropolitan/ Env't & Safety Dept. P12 Interaction and study meetings for RC members /Tokyo
- Metropolitan/RC
- Lecture for dengerous substances transportation/Osaka Prefecture/ ■Env't & Safety Dept. P12
- Anti Damping Seminar/Tokyo Metropolitan/■Int'l Affairs Dept.
- The 5th Risk Assessment Seminar on the revised Industrial Safety and Health Act /Tokyo Metropolitan/■Chem. Mgt. Dept. P13
- The Japanese Society for Alternatives to Animal Experiments LRI award ceremony /Tokyo Metropolitan/ Chem. Mgt. Dept. P15
- The 4th Children's science experiment class /Tokyo Metropolitan/ ■PR Dept P20
- Communication with consumers for RC/Kanagawa Prefecture/ ■RC Dept. P10
- Information Security Lecture Meeting /Tokyo Metropolitan/ ■Informatization Section P21
- Public-private council for safety measures in the manufacturing Industry Special Session (Ube Industries, Ltd.)/Hyogo Prefecture/ ■Env't & Safety Dept.



RCLG Conference

- QIndustrial safety course: sessions 12 to 14/Tokyo
- Metropolitan/■Env't & Safety Dept. P12
- The 8th Chemical Risk Forum/Tokyo
- Metropolitan/ Chem. Mgt. Dept.
- The 5th Children's science experiment class /Tokyo Metropolitan/■PR Dept. P20
- Fostering Program of Human Resources in chemistry Student-company exchange meeting/ Tokyo Metropolitan/Labor Dept. P22
- JCIA Seminar/Osaka Prefecture/
- ■General Affairs Dept RC Local Dialog meeting/Kanagawa Prefecture/
- ■RC Dept. P10 Process Safety Metric and Process Safety Workshop/Taiwan (Taipei)/■RC Dept. P10



The 9th Chemical Risk Forum

- Fostering Program of Human Resources in chemistry Student-company exchange meeting/Osaka Prefecture Labor Dept. P22
- Publication of "Chemical Industry of Japan in Graphs 2017" /■PR Dept. P20
- RC Local Dialog meeting /Osaka Prefecture/RC Dept. P10
- JIPS Award Ceremony /Tokyo Metropolitan/
 Chem. Mgt. Dept. P15
- Industrial safety course: session 15/Tokyo Metropolitan/Env't & Safety Dept.
- The 9th Chemical Risk Forum/Tokyo Metropolitan/Chem. Mgt. Dept.
- The 1st Risk Assessment Seminar on the revised Industrial Safety and Health Act [Sequel] /Tokyo Metropolitan/■Chem. Mgt. Dept. P13
- RC Local Dialog meeting/Toyama Prefecture/RC Dept. P10
- Interaction and study meetings for RC members/Chiba Prefecture ■RC Dept P10
- RC Local Dialog meeting/Yamaguchi Prefecture/RC Dept. P10
- RC Local Dialog meeting/Oita Prefecture/RC Dept. **P10**
- AMEICC WG-CI Core Human Resource seminar (Industrial Safety) /Tokyo Metropolitan/■RC Dept. ■Env't & Safety Dept. P24
- The instruction course for the leaders of production worksites /Tokyo Metropolitan/Labor Dept.

Activity Report: Responsible Care (RC)

Message

Continuous improvement and enhancement of public recognition of RC activities

Based on the idea of contributing to the realization of a sustainable society, we work to enhance the presence of the chemical industry as an active entity open to the public. Domestically, we will proceed with the continuous improvement of RC activities in response to the opinions of members and the changing environment surrounding the chemical industry. Globally, we will support the RC activities of local business branches of member companies and work to expand RC activities by promoting participation in local RC associations, as well as providing assistance under the ICCA-RCLG policy, particularly throughout Asia.

Committee Chairman Shigeru Ueyama [Managing Executive Officer, Kao Corporation]





Setup of Overseas Support Working Group

Master Plan of Overseas Support Working Group

According to the FY 2017 business plan, the Responsible Care Committee set up the new Overseas Support Working Group (WG) for the purpose of supporting responsible care activities by member companies' overseas subsidiaries in ASEAN countries. The newly developed Overseas Support WG Master Plan clearly specifies the medium-term direction of the activities for securing the environment, health, and safety by supporting the establishment of a responsible care system in overseas subsidiaries and encouraging those subsidiaries to join local chemical industry associations.

Support Activities by RC Workshop in 2017

Specifically, WG co-hosted lectures and workshops (RC-WS) in Thailand and Indonesia with the respective local Japanese Chambers of commerce in FY 2017. RC-WS won favorable recognition of the sessions held under the Responsible Care Integrated Program (RCIP), which had three years of experience in such activities, as very meaningful for activating and improving the responsible care activities of overseas subsidiaries.

Lectures and Workshops in Thailand and Indonesia

1. Thailand

A lecture discussing the global trend in the chemical industry targeting the management layer of overseas subsidiaries and

a workshop mainly on RC for local employees engaged in manufacturing on-site and those in charge of environmental safety were co-hosted by JCIA and the Japanese Chamber of Commerce, Bangkok. The lecture had more than fifty participants who showed great interest in the laws and regulations of Thailand related directly to their chemical business and who asked many questions. The hosts received many favorable comments from the participants about the lecture, including one that they looked forward to the next lecture

The workshop, which was held for local employees, also had more than fifty participants. Though 70% were in charge of environmental safety and manufacturing sites, among the rest 30% were



participants from the customer for chemical companies. We reaffirmed the importance of product stewardship (PS) is also recognized in Thailand. In the group discussion, participants exchanged opinions very earnestly, which demonstrated their awareness of RC.

2. Indonesia

In Indonesia, as was the case of Thailand, a lecture and workshop targeting the management layer of overseas subsidiaries and local employees were co-hosted by JCIA and the Jakarta Japan Club. The participants took the lecture on the laws and regulations governing chemical products given by the Ministry of Economy, Trade and Industry of Japan and shared information on the RC activities of Indonesia-based subsidiaries of Japanese companies. In

addition, Responsible Care Indonesia presented their RC activities in Indonesia. Many of the participants appreciated this opportunity and said that they looked forward to the next session.



Committee [Responsible Care Department]

Activity Outline

The purposes of the Responsible Care Committee are supporting member's RC activities, raising the trust in our members and the chemical industry by society, and contribute to the sustainable development of the chemical industry. To this end, the Committee focuses its efforts on supporting the continuation of RC activities for promotion and expansion of the industry.



Note: WG (Working Group)

Responsible Care (RC) Local Dialog Meetings

In FY 2017, we held Responsible Care Local Dialog Meetings in six areas such as Western Yamaguchi, Kawasaki, Sakai/ Senboku, Toyama/Takaoka, Iwakuni/Otake, and Oita. Ninety to

210 people participated in these meetings, and they showed particular interest in anti-disaster activities and systems against earthquakes, tsunami, explosions, fires, and other disasters.



TOPIG 2 **Responsible Care Activity Report** Meetings

We hold open report meetings every year for the purpose of informing the public of the details of RC activities. In FY 2017, the meetings were held in Tokyo and Osaka in December and featured a lecture by Mr. Mukaidono (professor emeritus at Meiji University) entitled "Recommendation to Review Safety Fundamentally," followed by presentations of the RC activity

reports and SDGs from three member companies. We hope that the reports and the meetings gave participants good opportunities to become aware of the companies' efforts toward safety once again.



RC Consumer Dialogs

We held consumer dialogs every year in order to deepen mutual understanding with consumer groups. In FY 2017, the meetings were held in Tokyo and Osaka to exchange opinions

about the companies' efforts for RC activities and SDGs, which offered important opportunities for communication and building a trust relationship.



Reporting Simulation Based on ICCA Process Safety Metric(PSM)

Following FY 2016, the second session of the reporting simulation based on the process safety metrics (PSM) was held in FY 2017, and we received reports from 58 member companies. Because it will be obligatory for ICCA-member chemical industry associations to report data based on PSM during and after FY 2019, we will promote the spread of PSM, which will commonly apply to ICCA members across Asia where JCIA is engaged, as well as JCIA-member companies.

Interaction and Study Meetings for RC Members

In order to share the best practices based on successful cases in regard to the eight basic requirements for RC, study meetings for interaction among RC members were held in Osaka, Nagoya, and Chiba in FY 2017, where members earnestly discussed timely themes, security and disaster prevention, industrial health and safety, and human resource development. These meetings, where participants from many member companies gather to learn of different approaches by other companies, serve as a good opportunity for information exchange about RC activities.

RC Verification Activities

JCIA verifies the RC activities of member companies that are continuously engaged in improving the quality of RC activities. Companies that undergo the verification process can boost public understanding and the reliability of their products and business operations by announcing the results. The verification activities, which started in 2002, consist of examinations of reports on overall company operations and examinations of each activity with regard to the six RC codes. As of the end of FY 2017, we verified a total of 207 companies.

Activity Report: Environment and Safety

Message

Securing safety is the top priority of the chemical industry

The Environment and Safety Committee regards the prevention of process safety incidents (PSI) and work-related accidents as prioritized themes, and supports the further safety activities of each member companies. We issued the reprint of version one of, "Safety and Accident Prevention Guidelines" booklet with the purpose of preventing the recurrence of recent serious chemical plant accidents. Using educational DVDs based on the guidelines, we hold seminars and study sessions to support the prevention of process safety incidents (PSI) and work-related accidents. We further contribute to ensuring safety by sharing information with other industries and providing information about the chemical industry to Public-Private Council for Industrial Security Measures of which JCIA is a member.

Mutsuo Narita [Senior Executive Officer, Asahi Kasei Corporation]



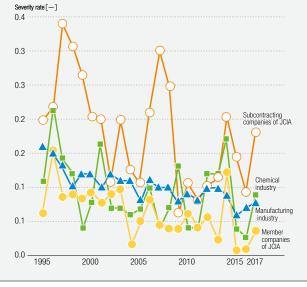


Approach for Prevention of Process Safety Incidents (PSI) and Prevention of Work-related Accidents

Activities for Prevention of Process Safety Incidents

We promote activities as an industry organization indicated in the "Three-ministry Liaison Conference on Disaster Prevention Measures for Facilities such as Petrochemical Complexes." In addition, we provide the "Safety and Accident Prevention Guidelines" booklet and educational DVDs with examples of disastrous accidents as educational tools to the job site education of member companies and human resource development education by the government for the purpose of raising the awareness of safety and the prevention of accidents. Furthermore, we promote the activities of working groups that study the challenges regarding appropriate measures for safety and accident prevention using IoT and its specific use for the chemical industry.

| Severity Rate



Activities for Prevention of Work-related Accidents

Centering on the system of Verification of Accident Free Operation and the Safety Award Council, we have continued to encourage best practices of the chemical industry in JCIA and have supported the transmission of skills, human resource development, and safety culture development by sharing with member companies through the Safe Symposium. As a result, we managed to maintain low levels in both the frequency and severity rates of work-related accidents compared to other industries. However, most recently, we witnessed worrisome signs of a ceasing to fall in the frequency rate and a rising of the severity rate. We will enhance our support for the Prosess Safety Incidents (PSI) and work-related accidents in the chemical industry by developing measures to prevent work-related accidents more effectively so that the activities of member companies and subcontracting companies will be able to fulfill their purposes.

Frequency Rate



Committee [Environment and Safety Department]

Activity outline

The committee grasp both the domestic and international situations regarding process safety and disaster prevention, as well as environmental and occupational safety in the chemical industry, and provide information to member companies. We also collect and summarize opinions for national policy from the industry and offer suggestions to the government. The Safety Award Council honors companies that have achieved excellent results for safety and announce the efforts for their good performances in order to raise the awareness of safety within the chemical industry as a whole.



10716 1 Industrial safety course

For four years through FY 2017, a total of more than 120 participants completed Industrial Safety Course, which we cohosted with the Petroleum Association of Japan and the Japan Petrochemical Industry Association for the purpose of developing leaders who can promote safety in the petroleum and chemistry industries. Through discussions among industry, government, and academia, and their cooperation in providing lecturers, we are committed to the course as one that can lead to practical implementation. In 2017, we incorporated into the course the Safety and Accident Prevention Guidelines booklet and the accompanying educational DVDs, in which JCIA has invested its efforts, to raise the awareness of safety and develop

a culture of safety, which would lead to the prevention of serious Prosess Safety Incidents (PSI).



TOPIG 2 **Responses to Regulations for Water Quality. Air Pollution, and Soil Contamination**

Considering the regulations of the Ministry of the Environment for water quality, air pollution, and soil contamination, we have exchanged opinions with people from major industrial organizations, and we have summarized member opinions through the Environment Subcommittee and positively made industry-based proposals to administrative authorities.

[Main Themes]

Water quality Measures for Whole Effluent Toxicity (WET) testing. Air pollution Mitigation of mercury emissions to the air, Measures against particulate matter (PM 2.5) and photochemical oxidants.

Soil contamination Preparation for amendment of the Soil Contamination Countermeasures Act (amendment of government and ministerial ordinances).

TOPIC 3 Actions for reduction of occupational accidents

We supported member companies in addressing legal requirements by providing information about the change in the

model of protective equipment for fall prevention and dust masks associated on the amendment to the Industrial Safety and Health Act, as well as information shared by the Occupational Health and Safety Subcommittee, which confirmed the progress of assessments by the Ministry of Health, Labour and Welfare regarding percutaneous exposure to chemical substance by workers, which is expected to be amended in future. For the purpose of improving the frequency and severity rates, we provided information about recurrence prevention measures implemented for similar accidents as found in our 42-year survey of actual occupational health and safety so that we can support the activities of member companies to reduce accidents.

TOPIG 4 Lecture for preventing damage from Tsunami

November 5 was designated by the United Nations as World Tsunami Awareness Day; consequently, we co-hosted a lecture on preventing damage from tsunamis on October 31, 2017, with the Petroleum Association of Japan and the Japan Petrochemical Industry Association. The presentation by an academic expert titled "Disaster Prevention Measures of Companies and Mental Care in Times of Major Disasters" regarding the size and aftermath of a Nankai Trough earthquake and the evacuation drills as the base of measures and the importance of safety confirmation and the talk by a company titled "Actions Taken at Lawsons in Large-scale Disasters" about Lawson's BCP activities in the Great East Japan and Kumamoto earthquakes were very informative.

TOPIC 5 Lecture for dangerous substance transportation

Lectures on safety management during dangerous substance transportation were held in Tokyo and Osaka in November 2017. Recently, the requirements of management responsible for dangerous substance transportation by shippers have increased, so we invited experts from the public administration and related organizations to discuss in detail the knowledge and information on international rules, laws, and regulations for air, maritime, and ground transportation. We will continue to sponsor these lectures to properly address any new information on rules and regulations.

Activity Report: Chemicals Management

Message

Efforts for Firm Establishment of Chemicals Management as a Business Strategy

Under the basic policy of strengthening support for chemical management and the further promotion and expansion of contribution activities voluntarily conducted by the chemical industry, various activities are deployed to disseminate information on chemical management to members and respond to amendments to all related laws and regulations. From now on, we will strive to further strengthen support activities by proactively popularizing the risk assessment tool in particular to support risk assessment by midstream and downstream business operators.

Teijiro Nishitani [Managing Executive Officer, Mitsubishi Chemical Corporation]





Popularization and Promotion of Risk-Based **Chemical Management**

The concept of risk-based chemical management proposed by the United Nations Environment Programme (UNEP) is reflected in the legal restraints of various nations around the world, the voluntary chemical management also efforts by industries play an essential role in promoting proper management. In Japan, management to protect workers, the environment, and consumers across the entire supply chain is promoted under the framework of the GPS/JIPS modified from the Global Product Strategy (GPS) of the International Council of Chemical Associations (ICCA) to conform to the conditions of Japan.

Development of Chemical Risk Assessment Supporting Tool BIGDr.Worker

In compliance with the revised Industrial Safety and Health Act of 2016, which obliges all business operators handling chemical substances to conduct exposure risk assessment for workers, the Information Disclosure WG under the GPS/JIPS Promoting Section Group developed the risk assessment tool BIGDr. Worker for midstream and downstream business operators to estimate exposure concentration of working environments and for risk assessments with simple operation. Regarding the use of this tool, in addition to lectures (9 times in total) sponsored by JCIA, we visited the associations of all industries and conducted briefing sessions (19 organizations), and gave lectures (7 times in total) in seminars organized by different organizations. In response to the revision of the law, we actively popularize activities and provide support to businesses operators that conduct risk assessment for workers using chemical substances of all industry.

Promotion Activities through Chemical Risk Assessment Seminars across Japan

In response to the enforcement of this law, JCIA provided risk assessment seminars for practitioners who are in charge of evaluating risks carried out by business operators throughout

the supply chains, with the aim of supporting the training of human resources for voluntary chemical substance management.

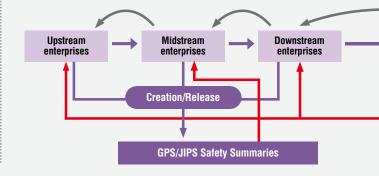
In the seminars (3 times in Tokyo, 2 in Osaka), the participants acquired the knowledge necessary for risk assessment and the risk assessment method, and there were totally 231

participants from a variety of sectors including midstream and downstream businesses operators (non-member ratio 70% or more). More than one year has passed since the enforcement,



[Products flow and information flow]

Information on application and usage of chemical products



Committee [Chemicals Management Department]

Activity Outline

The committee cultivates close ties with regulatory authorities and other administrative bodies in order to actively gather, analyze, and communicate information pertaining to domestic and overseas regulatory trends in chemicals management that members require and find helpful. In addition, we gather member opinions and requests for submission to the regulatory authorities. As part of the independent initiatives in the industry, the committee is proactively promoting GPS/JIPS activities, tackling new issues, and supporting research and technology evaluations related to chemical risk assessment methods.



and we can see that many businesses operators are working to train personnel for risk assessments using chemical substances. Through these efforts, JCIA provides a place for human resource development for all businesses operators, regardless of whether they are members or non-members, and contributes to the promotion of risk assessment of exposure for workers throughout the supply chain.

Restart JIPS Consortium Activities

The Popularization and Promotion WG under the GPS/JIPS Promoting Section Group restarted JIPS consortium activities with the aim of strengthening the GPS/JIPS activities of member companies. There are three target substancesacetaldehyde, bisphenol A (2-hydroxypropyl) ether, and glyceryl stearate—and eight companies participated. We aim to release the common Draft of Safety Summaries to companies participating in each consortium by the end of 2018. Through these efforts, we support the promotion of JIPS activities of member companies by sharing the expertise of compiling Safety Summaries.



TOPIG 1

Efforts on Amended CSCL

To widely disseminate the Amended CSCL promulgated in June 2017 and then prepare and respond to its enforcement in 2018 without delay, we invited a lecturer from the Chemical Safety Office of METI and held a briefing session on the Amended CSCL on March 30, 2018. Approximately 100 persons attended for a lively question-and-answer session as the members have showed great interest in the Amended CSCL.



TOPIG 2

Response to Regulations of Oversea **Chemical Laws**

We grasped the latest trends in the chemical management regulations in each country, disseminated relevant information to members, gathered opinions from member companies, and offered opinions to the authorities. In recent years, it has been important to call attention to the inventory reset of the Toxic Substances Control Act (TSCA) in the United States and to grasp the trend for the revision of chemical management regulations that are being considered for review in Asian countries and regions including China, Korea, Taiwan, and Thailand. By cooperating with the Japanese government, local Japanese affiliates, and local industrial associations, we understood the regulatory trends and the management status at local sites and offered the necessary opinions and proposals to the administrative authorities of each country as Japanese industrial society JCIA.

TOPIC 3 Chemicals Management in Supply Chain

With the goal of promoting the proper management of chemicals in the supply chain, JCIA provided operational support for disseminating domestically and internationally the chemSHERPA (an information sharing scheme of chemicals contained in products) recommended by the Japanese government. Also, from a stand point of a chemical industry society. JCIA dealt with in the maintenance and management of the GADSL substances list prepared and maintained by GASG, which is composed of representatives of automobile, automotive parts, and chemical manufacturers in Japan, the United States, and Europe. Furthermore, JCIA participated in the domestic committee and working group for the international standard TC111 (environmental standards for electrical and electronic equipment) promoted by the electric and electronics industry, such as the Japan Electronics and Information Technology Industries Association (JEITA), and cooperated in the creation and maintenance of international standards.

TOPIG 4 JCIA LRI (Long-range Research **Initiative) Annual Meeting**

JCIA LRI is long-term activities to support research into effects of chemical substances on human health and the environment.JCIA holds LRI annual meeting every year. The Meeting was held at the Tokyo Shoken kaikan on August 25, 2017, with about 170 participants. At the Meeting, after the lectures by the winners of LRI Award, expectations and problems on toxicity prediction methodology were discussed

in the symposium. In the poster session, a lively question-and-answer session was conducted about the progress reports of research projects supported by JCIA LRI.



TOPIC 5 Amendment of JIS in Conformity with **GHS** and Trends of Poisonous and **Deleterious Substances Control Act/** PRTR Law

JCIA, as the secretariat, organized the JIS Drafting Committee and reflected the United Nations, the 6th edition of the Globally Harmonized System of Classification and Labelling of chemicals (GHS) in the revisions of JIS Z 7252 and Z 7253. Also, regarding the Poisonous and Deleterious Substances Control Act, JCIA gathered member companies' opinions for improvement and made proposals on operation methods to regulatory authorities. Furthermore, regarding the PRTR Law, we participated in the advisory council on revision of the PRTR Law held by METI, offered opinions and made proposals on the criteria for selecting designated substances as chemical industry society.

Award

JCIA LRI Award

JCIA LRI Award is to commend researchers with outstanding research achievements on the impact of chemical substances on human health and environment. The winner of the third Japanese Society of Toxicology (JSOT) LRI Award of 2017 was Dr. Koichi Yoshinari, professor, School of Pharmaceutical Sciences, University of Shizuoka. The winner of the second Japanese Society for Alternatives to Animal Experiments (JSAAE) LRI Award was Dr. Hiroaki Todo, associate professor, Faculty of Pharmaceutical Sciences, Josai University. Award ceremonies were held at the annual meeting of respective academic conference.



Associate Professor Todo

2017 JIPS Award

The second JIPS Award for this year, the Grand Prize, was won by Sumitomo Chemical Co., Ltd., and the Excellence Award was won by Kao Corporation. After the awards ceremony held by the Chemicals Management Committee on February 13, 2018, Sumitomo Chemical Co., Ltd., offered a lecture on the GPS/ JIPS activities systematically undertaken by the company.



From the left: Ms. Yamada, Mr. Murata from Sumitomo Chemical Co., Ltd., Former Committee Chairman Mr. Ueda

Activity Report: Economy and Tax System Committee

[Department of Business/Economic Information]

Message

Investments and Efforts Contributing to System Development for Future of the Chemical Industry

While the chemical industry has a good business environment supported by stable growth both at home and abroad, there is a growing need for a wide range of investments and system development for the future, including productivity improvement, environmental responsiveness on a global basis, preparation for Society 5.0. In this context, we are working to offer opinions on the various restrictions and systems, including tax systems, and sharing useful information about business management, while understanding the "Now" of the chemical industry, for proper response from a perspective of a global trend and realization of equal footing in the global business environment.

Hiroyuki Ninomiya, Committee Chairman [Executive Officer, DIC Corporation]



Activity Outline

Toward the development of the economy of Japan and for the purpose of realizing active economic circulation, regulatory actions of the relaxation of regulations and amendments to tax systems are being implemented. Under these circumstances, we are working to consolidate and share information on the economy and tax systems leading to specific government policies

for the further growth of the chemical industry. Especially for tax systems, we are strengthening and promoting activities while cooperating with other industries.

Tax Administration Subcommittee Security Trade Control Investigative



FY 2018 Activities for Requesting a Revision on Tax System

During this fiscal year, while there is no common theme found across the industries, we have regarded the following five items as priority requests with a focus on capital investment that is important for the chemical industry:

- (i) Coordination of tax systems for promoting capital investment for productivity improvement
- (ii) Coordination of tax systems for promoting investment in human resources
- (iii) Enhanced competitiveness of business enterprises through a substantial tax reduction
- (iv) Fundamental review of global warming taxes
- (v) Exception of taxes on materials for petrochemical products provided by the main provisions of the acts of gasoline tax and petroleum and coal tax

As a result, the revision mainly focused on pay raises and investments in IoT. We will continue to request support for capital investment and research and development as fundamental to solutions.

Compilation of Handbook on Export Goods Control

The Handbook on Export Goods Control has been prepared by the Security Trade Control Investigative Subcommittee and posted on the website exclusively for members. When read with the Handbook on Service Transactions for Security Export Control as compiled in 2015, this handbook is useful for the business activities of member companies.



Development of JCIA Indexes Disclosed for Members

As indexes of representing the "Now" of the chemical industry, we developed JCIA Indexes by independently compiling released relevant data. They are divided into three indexed as

- (i) Major Chemical Products Shipment Index (trends of chemical products)
- (ii) Key Industries Production Index (states of customer industries)
- (iii) Major Chemical Companies Quarterly Sales Index (business results of chemical companies)

The indexes are disclosed on a monthly basis, together with remarks, on the website exclusively for members. Login the website and access the indexes via the following URL.

https://www.nikkakyo.org/kaiin/ committee/topics/files/5630



Activity Report: Technical Affairs Committee

Message

Development of Chemical Industry and Contributions to Measures against Global Warming

Toward the achievement of the Japan's GHG reduction goal (reduction by 26% from the FY 2013 level by FY 2030) under the Paris Agreement and the development and implementation of a long-term strategy for further reductions of 80% by 2050, the administration and various industries are beginning to make efforts. While the chemical industry needs to tackle the GHG reduction in its own manufacturing processes, it has the potential to contribute to measures to address global warming in a variety of fields by leveraging its products and technologies. In order to balance economic development and the realization of a carbon cycling society, we will endeavor to play the role of a solution provider.

Tadashi Hiraoka, Committee Chairman [Executive Officer, AGC Inc.]



FOGUS

Keidanren's Commitment to a Low Carbon Society

Discussion on review of CO2 reduction goal

JCIA started to address CO2 reduction from the era of the Keidanren Voluntary Action Plan on the Environment and has continued those efforts since 2013 as Keidanren's Commitment to a Low Carbon Society based on the following 4 pillars:

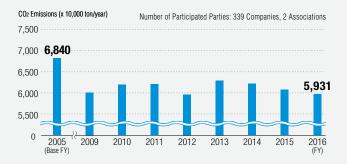
- Reduction within enterprise activities in Japan (BAU comparison basis reduction of CO₂),
- Low Carbon Products: Reduction in other business segments such as servicing, etc.,
- Overseas contribution to reduction,
- Development/introduction of innovative technologies.

In the Keidanren's Commitment to a Low Carbon Society followup survey in FY 2016, CO2 reduction of 3.68 million tons was achieved while the CO2 reduction goal was a reduction of 2 million tons by FY 2030 (from the FY 2005 level), which resulted in significantly greater reductions than anticipated for two years in a row since 2015.

CO₂ emission reduction goal and result

Reduction goal	Result			
	FY 2014	FY 2015	FY 2016	
2 million tons by	0.96 million tons	2.78 million tons	3.68 million tons	
FY 2030 on BAU	on BAU comparison	on BAU comparison	on BAU comparison	
comparison basis	basis	basis	basis	

Transition of CO2 emission

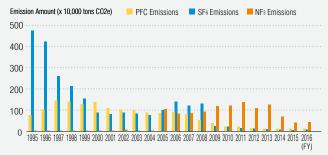


In response to this result, we decided to review the goal for FY 2030 and establish the Industry Goal Review Task Force in the Commitment to a Low Carbon Society WG in January 2018. Now we are involved in discussions. The governing body is planning to set a new goal by the end of FY 2018, and we will pursue the new goal from FY 2019.

CO2 reduction efforts on a global scale

For the implementation of the long-term strategy we drafted last year, we are determined to discuss the technologies and systems that are expected to reduce CO2 and the efforts toward such implementation in cooperation with the national government and concerned bodies. We are discussing issues from heightened viewpoints and a broader perspective, such as our contribution to the CO2 reduction during product manufacturing and the whole product life cycle and CO2 reduction in Japan, as well as in the world, by endeavoring to contribute to CO2 emission reduction on a global scale.

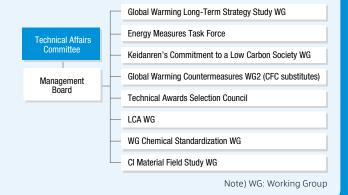
Transition of PFCs, SF_6 , and NF_3 emitted from manufacturing processes



[Technical Affairs Department]

Activity Report

JCIA is proactively participating in Keidanren's Commitment to a Low Carbon Society and in activities concerning global warming and energy policies at home and abroad, as well as tackling different issues along with the administration and other bodies. With JCIA Technology Awards for promotion of chemical technologies marking its 50th anniversary in FY 2017, JCIA continues its activities to further improve the technical capabilities of the chemical industry and contribute to the society. Furthermore, JCIA also collects information on standardization, intellectual property, and the protection of business confidentiality and then provides information to members.



TOPIG 1 The 49th Annual JCIA Technology **Awards Grand Prize and Special** Technology Prize awarded for the Ichimura Prize in Industry.

Every year JCIA nominates an achievement for the Annual JCIA Technology Awards for the Ichimura Prize in Industry of the Ichimura Foundation for New Technology (former New Technology Development Foundation). In FY 2017, as nominated by JCIA, the "Development of Highly-functional Reverse Osmosis Membrane" by Toray won the Outstanding Achievement Prize and "Development of Slurry Rheology Modifying Agent" by Kao won the Contribution Prize. We will continuously contribute to the economic and social advancement of Japan by recognizing of innovative and excellent science, technologies, and products.

TOPIG 2 Promotion of cLCA activities and participation in Global Value Chain **Contribution Workshop**

JCIA is promoting efforts to evaluate and quantitatively identify the contribution of chemical products to reductions of greenhouse gas emissions by final products using the cLCA method. For this fiscal year, the revised version was issued of the global guidelines that had been jointly published by the chemical sectors of ICCA and WBCSD in 2013. The guidelines contain 17 case examples, including a case with Japanese product, and LCA-WG published its Japanese edition. JCIA also joined the Global Value Chain Contribution Workshop hosted by the Ministry of Economy, Trade

and Industry, introduced the progressive efforts made by JCIA, and provided cooperation in development of versatile guidelines that allow industries to quantify the amount of CO₂ reduction they contributed to and can be used as a reference material for explanation to people outside the industries.



Measures of global warming long-term strategy

As a long-term strategy for the chemical industry to address global warming, we established the Sub Working Group for Realizing What the Chemical Industry Should be, and discussed the establishment of the carbon cycle (CCU), which is one of the CO2 reduction measures, by narrowing down the issues. We are discussing the issues that the chemical industry should address. For example, in discussions of lowcarbon technologies and carbon cycling by means of hydrogen and energy management, we referred to the issue of CO2 supply source and the issue of procurement of inexpensive low-carbon electric power and hydrogen that will be necessary for implementation of the energy-saving technologies in the future.

Establishment of Connected Industries (CI) Material Field Discussion WG

As part of the CI efforts of the Ministry of Economy, Trade and Industry, we established this WG for the purpose of strengthening the competitiveness of the chemical industry through the use of data, which is a new management resource. We mainly discussed four issues to address: 1) creation of new business domain, 2) further strengthening of material development capabilities, 3) conversion to next-generation production systems, and 4) fostering and securing of human resources, and then drafted the following six measures:

- (1) Models and issues of (base) data coordination and relevant measures
- (2) Fostering and securing of human resources who can handle (base) data science
- (3) Integration and sharing of business style and information in single supply chain
- (4) Construction of CO₂ emission amount DB that can be developed to LCA
- (5) Reduction of development cost and shortening of development period through coordination of unutilized technology data
- (6) Construction of advanced production systems (within company, through regional coordination)

The discussion report summarizing these issues can be viewed via the following URL:https://www.nikkakyo.org/news/page/6881

Activity Report: International Activities Committee

[International Affairs Department]

Message

Information Collection on Trade Issues and Actions for Unfair Trading

While there is a movement toward protectionism in some countries, Japan is pressing forward with work on the early entry into force of TPP11 and Japan-EU EPA, as well as negotiations for enhancement of regional economic partnerships, including the RCEP. Under these circumstances, we will promote activities for the correction of unfair trading and the reflection of chemical companies' intentions in trade negotiations through continued information collection and cooperation with the government. In addition, we will continue the use of the ICCA activities and opportunities for interaction with industry associations in China, Korea, and other countries in order to realize sustainable society and development of the chemical industry.



Takashi Shigemori, Committee Chairman, [Managing Executive Officer, Sumitomo Chemical Company, Limited]

Activity Outline

This committee handles with our association's such international affairs as (a) gathering and delivering information of chemical industry related trading issues and (b) reinforcement of relationships with overseas chemical organizations. The specific activities include, (a) advocating toward the authorities about Rule of Origin, amendment of anti-dumping rules and so on, to aim at having the opinions of domestic chemical industry reflected, (b) information sharing with our membership companies, (c) strengthening tie with the chemical industry in China, Korea and other countries through chemical industry convention, and (d) participation in activity of the International Council of Chemical Associations (ICCA).

Management Board



The 3rd China/Japan **Chemical Industry** Conference

In October 2017, the 3rd China/Japan Chemical Industry Conference was co-hosted by CPCIF and JCIA/JPCA in Tokyo. About 90 people in total participated from both countries, including Mr. Ishitobi, chairman of JCIA and Mr. Tannowa, chairman of JPCA from Japan, as well as Mr. Fu, vice chairman of CPCIF from China as a top leading the Chinese delegation, and an active exchange of opinions took place. During the general assembly on the first day, introductions were made on the current statuses of the chemical industry in China and Japan, efforts to combat climate change, activities for Responsible Care, and trading issues regarding chemicals between China and Japan. In the subcommittee meetings on the second day, in order to share environmental issues on the chemical industry, presentations were made by both China and Japan regarding (a) the efforts to address environmental problems of water discharge and VOC, (b) chemical substance management, and (c) problems of marine plastic

pollution. Both the countries appreciated the conference and concurred to continue interaction through this event



Second left: Mr. Fu. Vice Chairman of CPCIF

TOPIG 1

The 8th Annual Meeting of **Korea and Japan**

In December 2017, the 8th Annual meeting of Korea and Japan was held in Seoul. Likewise in the past, an exchange of opinions and discussions were held on the themes of chemical management, Responsible Care, and climate change. For chemical management, opinions and presentations were exchanged between Korea and Japan regarding not only the latest situation of regulations but also practical issues specific to each country on chemical management, including concerns about the EU Reach and amended TSCA. Considering (a) huge shipment of chemical products from Japan to Korea, (b) lots of Japanese companies have a presence in Korea, we JCIA is paying close attention to the trend of regulations on chemical management in Korea, including K-REACH and intends to deepen mutual relationship with Korea Chemical Industry Council (KOCIC) through interaction and exchange opinions in Annual meeting, and wishes to

utilize the tie for the development of the chemical industry in both countries.



Activity Report : Public Relations Committee

[Public Relations Department]

Message

Providing Opportunities to Encounter Chemistry for Children as the Next Generation

In order to promote social awareness of chemistry and the chemical industry that contribute to society and economy and to develop the chemical field further, it is important to attract and foster talented people who will lead the next generation. We will work to promote understanding of the usefulness of chemicals and the chemical industry, as well as the contribution to society in collaboration with academia and the media. Furthermore, we would like to provide opportunities to encounter chemistry for children as the next generation through the activities implemented for the spread of chemistry Day in collaboration with our members.



Masayuki Fujii, Committee Chairman [Executive Officer, Ube Industries, Ltd.]

Activity Outline

The Public Relations Committee shares information with society on the efforts made by the chemical industry in Japan regarding the environment, health, safety, and the fostering of human resources, as well as the activities of JCIA. Furthermore, it works to further enhance the presence of the chemical industry through the activities for sharing the value and attractiveness of chemistry to youth through an enterprise of Dream Chemistry 21 under cooperation with related associations and various activities toward the spread of October 23, Chemicals Day.

Chemicals Day Promotion WG

Note) WG: Working Group



Chemical-Experiment Show for Children

"The Summer Vacation Chemical-Experiment Show for Children" marked its 25th session this year with 5,500 visitors. This show was started by Dream Chemistry 21 Committee, which was established by four industrial and academic organizations (the Japan Chemical Industry Association, the Chemical Society of Japan, the Chemical Industry Council and the Japan Association of Chemical Innovation) in 1993 as part of their efforts for further understanding and awareness of chemistry among children as bearers of the future. These four organizations also established "Chemistry Day as October 23" in 2013 and called on companies and associations related to chemicals to begin "the Chemistry Day chemical-experiment show for children" by providing broader opportunities to familiarize citizens with chemistry based on "Chemistry Day/Chemicals Week." This year, as many as 6,000 people attended this show while a typhoon was approaching. We are confident that the activities of "Chemistry Day/Chemicals Week" become successfully gaining momentum year by year.



Introduction of the Chemical Industry in Japan and JCIA

We publish the Chemical Industry of Japan in Graphs, which describes the chemical industry in Japan using numbers and graphs for easy understanding, which gained a favorable reputation both internally and externally, including member companies and associations. In addition, we have also published the "JCIA Annual Report" to introduce JCIA activities.



Children's Science Experiment

"The Children's Science Experiment Class" is a full-fledged class targeting schoolchildren in the first to fourth grades. Two classes a day, six days a year, are held at the Science Museum on Saturday afternoon instructed by teachers from the Chemical Society of Japan. A total of 450 elementary school pupils participated in those classes. We hope that more children will become interested in chemistry by finding and exploring the mysteries of chemistry through observations and experiments and will grow up as bearers of the next generation.

Renewal of JCIA Website

JCIA has renewed its website to a portal site, in which information is categorized for easy use so that JCIA's activities and the current circumstances surrounding the chemical industry are easily available to the public at large.

Activity Report : Labor Committee

[Labor Department]

Message

Pursuing Human Resource(HR) Development for Member Companies

In FY 2017, we discussed the Environmental Development for Flexible Workstyle regarding workstyle reform, one of the HR management issues of high interest to member companies, with a working group and held a report session. The instruction course for the leaders of production worksites in the chemical factories has been held as well as last year. We will move ahead on providing member companies with useful information and support for HR development.





Activity Report

The committee is engaged in various workshops and seminars for HR / labor affair staff, HR Issue WG and offering opinions to government on laborrelated programs / law amendments in cooperation with Keidanren and other business associations. In addition, the committee is working to hold periodic information exchanges with labor union organizations to maintain the proper relationship.





Reporting Session on Activities of HR Issue WG

Since September 2017, the HR Issue WG has discussed the needs and concept of the Environmental Development for Flexible Workstyle from the perspective of the growth target of the chemical industry. Following the report made to the Labor Committee in February 2018, the session for reporting to member companies, as well as a lecture by the Ministry of Health, Labour and Welfare and Suntory Holdings Limited, was held in April. We received a lot of feedback from the participants in charge of HR management of member companies, such as "The explanations

on the issues in the chemical industry and an approach of using telework were easy to understand" and "The keys for management were very helpful." We hope that suggestions from the WG will be useful in the HR policies of the member companies.



Activity Report: Security Information Management Subcommittee [General Affairs Department]

Activity Report

The Security Information Management Subcommittee shares security information on cyberattacks with member companies and associations that have individually contracted into a non-disclosure agreement with the Information-technology Promotion Agency, Japan (IPA) for prompt action against any cyberattacks.





"Speed" is essential for Information security

New attack techniques are developed one after another in the information security world. We have to collect latest information and knowledge at all time for protecting system from the attacks. JCIA not only provides the latest information unilaterally but also receives information on the latest actual attack cases from member companies and associations that participate in the subcommittee. JCIA then provides the results of analyzing the attackers and their methods, as well as information on methods for protection, as quickly as possible in order to help member companies and associations with security measures. In addition, we are working on the spread of information security through holding lecture meetings.

Care Con

Fostering Program of Human **Resources in Chemistry**

The Fostering Program of Human Resources in Chemistry was established in October 2010, responding to the recommendation made by the Chemical Vision Study Group set up by the Ministry of Economy, Trade and Industry in 2009. This program supports doctoral courses and their students responding to the needs of human resources demanded by the chemical industry for developing the young human resources that will form the foundation for enhanced international competitiveness in the chemical industry in Japan and the prosperity of the industry. The Council of Human Resources Fostering Program in Chemistry, with 36 member companies of JCIA favorable to this concept, contacts companies, supports job-hunting and award scholarships for doctoral students in chemistry.

Our new efforts include supporting chemical industrial education and organizing symposiums, and we look to further enhancement of programs through familiarization to many graduate students and the exchange of opinions.

Fostering Program of Human Resources in Chemistry

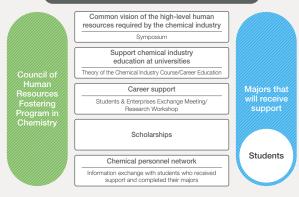


Image of Human Resources Required▶▶▶

- Human resources with a wide range of fundamental academic capabilities in addition to deep expertise in the specific fields
- Human resources with an excellent ability to set one's own tasks. and management ability to create hypotheses and execute them
- Human resources with excellent leadership and communication
- Human resources with a global sense

TOPIG 1

Chemical Industry Education

We began a course of the "Theory of the Chemical industry" at Kobe University and Osaka Municipal University by dispatching lecturers from JCIA member companies to universities in 2017 for the purpose of supporting chemical industry education in universities. This course consists of general theory with an overview of the past to the future of the chemical industry and specific theory of the circumstances and approaches to product and technology development of each company. The program is attended by many graduate school students majoring in chemistry with great interest. In addition, on November 14, the special lecture (Generalities I through III) of Study of the Chemical Industry was given at Tohoku

University. We will actively develop this course with the purpose of helping students understand the history of the chemical industry, its contribution to society, and the expectations and roles hereafter.



TOPIG 2

Support for job-hunting (Research presentation meeting/Studentcompany exchange meeting)

On October 16, the Human Resources Exchange Forum in Chemistry 2017 was held in JCIA. 8 students from majors that will

receive support gave research presentations, 3 young researchers who obtained doctorates and who were employed by chemical companies introduced cases of doctors working in the industry, and an opinion exchange meeting was held where company personnel and students participated in mutual question and answer sessions. In addition, in January and February of 2018, student-company exchange meetings were organized for students in the doctoral course that will receive support in Tokyo and Osaka. The meeting in Tokyo was attended by 25 companies and 61 students from 12 majors, and the session in Osaka was attended by 23 companies

and 39 students from 12 majors. The purpose of the meetings was to provide information useful for career design, and the meetings were intensive opportunities for exchanges between universities and companies.



TOPIC 3

Selection of Majors that will Receive Support/Scholarships

The 8th screening for majors that will receive support was conducted and support for 5 majors was determined. (As of April 2018, 20 majors in 12 graduate courses are receiving support.) Majors receive support by making especially excellent efforts to foster human resources, and a scholarship of 200,000 yen per month is awarded to each student nominated by the major for three years. In FY 2017, scholarships were awarded to 29 students in 15 majors from 12 graduate courses.

NEWS [Activities as a member of international society]

Activities of ICCA (International Council of Chemical Associations)

What is the International Council of Chemical Associations (ICCA)?

ICCA was established by the chemical industry associations of the United States, Canada, Europe and Japan in 1989. Currently, the chemical industry associations of North and South America, Europe, Asia, Oceania and Middle East Gulf countries join as Full Members. The number of total member countries and regions is approximately 50 including Associate Members such as China and India and Observer Members such as Russia, etc. ICCA has contributed to the sustainable development of the society through promotion of the chemical industry's voluntary activities represented by Responsible Care. The organization of ICCA comprises four main Leadership Groups which implement strategic efforts and engage in communication such as advocacy. At the ICCA Board of Directors meetings, global issues common to the chemical industry are discussed. Members of the ICCA Board of Directors are CEOs of chemical companies, who are nominated by ICCA member associations. Promotion of RC in China, India and Russia, contribution of the chemical industry to global warming, support for chemicals management in developing countries in cooperation with UNEP, contribution of the chemical industry to SDGs, measures for marine plastic problem, etc. were discussed at the ICCA Board of Directors meetings in 2017. Based on the policy decided by the ICCA Board of Directors meetings, each Leadership Group proceeds with its activities.

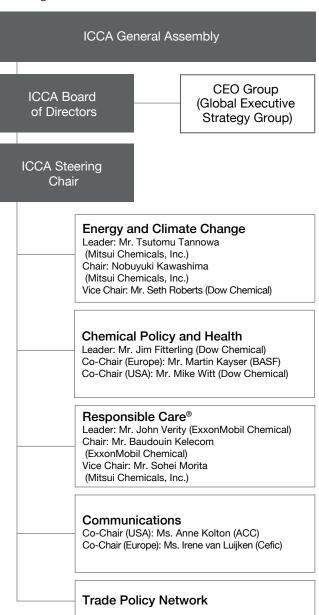
For more information, refer to the ICCA website. https://www.icca-chem.org



Activities of the ICCA E&CC LG

JCIA, as the chair country of the E&CC LG, positively transmits the role and outcomes of the chemical industry as a solution provider for global energy problems and climate change issues and acts to be able to acquire the understanding of international society. Specifically, JCIA act focusing on the contribution to the construction of a sustainable society through the promotion of the cLCA, creation of innovative technology toward the a realization of low carbon society in 2050, and a study of measure planning against disasters due to climate change.

ICCA Organization Chart



Activities of ICCA CP&H LG

JCIA participated in the CP&H LG meetings held twice a year and the relevant task force meetings, and positively offered its opinions especially on activities in ASEAN, etc. In addition, as Capacity Building activities, we invited lecturers from major member companies of JCIA to Vietnam and held seminars on Product Stewardship, GPS, risk assessment and how to make SDS of mixtures. JCIA made efforts to develop capacity in local companies in Vietnam.

Activities of ICCA RCLG

Regular RCLG Conference in autumn was held for two days, in November 2 (Thu) and 3 (Fri), in Singapore continuously from APRCC. The main agenda items were (1) Promotion of RC activities in developing countries in cooperation with ICTA, (2) circumstance of supporting RC activities in priority regions (China, India and Africa), (3) preparation situation of report of ICCA Process Safety Metric (PSM), and (4) report of RC activities status in each Asian countries. As the conference was held for the first time in four years in Asian region, many Asian countries positively reported their activities. Indonesia originally had a plan to sponsor the conference but was obliged to change as the host country due to the sudden increase in the activity of a volcano; the country reported the summary of activities over the past 20 years. In addition, China, which produces approximately 40% of chemical products in the world, become an associate member while enhancing the RC activity system during the next three years for the RC promotion to be a regular member by 2020. Further, Cefic representing Europe reported that they would revise RC Management Framework (RCMF) unchanged since 2005 in order to revitalize RC activities to aim to provide clear policy.



ICCA ASEAN Regulatory Cooperation Project

ASEAN Regulatory Cooperation Project (ARCP) targets countries participating in ASEAN Economic Community (AEC), promotes activities focusing on chemicals management of risk base as a project under the influence of ICCA GRC, and has a goal of applying a global policy of regulatory cooperation of ICCA to chemicals regulation being improved in this region. This project is led by the association in Singapore and participated in by JCIA with ACC as an organization member of the committee.

Efforts in UNEA

The UN Environment Assembly is a decision-making organ of the United Nations Environment Programme (UNEP) and sponsors an international conference once every two years. The second General Assembly was participated in by governmental environmental ministers from 170 countries and by representatives of the relevant international organizations and NGOs. ICCA, including JCIA committed to UNEA3 to promote RC focusing on reductions of emissions in order to continuously improve the proper global implementation of chemicals management and to reduce the amount of waste generated by facilities and the contaminants emitted into the atmosphere, water, and soil according to the RC Pollution Prevention Code.

Activities of APRCC and APRO

What is APRO Asia Pacific Responsible Care Conference?

APRO was established to promote RC activities in Asia and the Pacific regions. The chairman came from JCIA, which is one of main members of ICCA, and APRO is an organization of 15 Chemical Industry Associations from these regions. Its main activities are to hold the Asia Pacific RC Conference in one of the member countries once every two years and energize RC activities in the host and surrounding countries. In FY 2017, APRCC was held in Singapore. JCIA gave a presentation on chemicals management and acted as the chairperson in another session as its successful contribution.



Efforts in APEC

Chemical Dialogue

APEC is a framework for economic cooperation by 21 economies in the Asian Pacific region and works to liberalize trade and investment, smooth business between economies, promote the security of human beings, and encourage economic and technical cooperation toward sustainable growth and prosperity in the Asian Pacific region. JCIA participates in Chemical Dialogue, one of sub-fora in the trade and investment committee of APEC. Chemical Dialogue performs information exchange on the various issues facing the chemical industry (environmental problems; security, disaster prevention, and labor safety; chemicals safety; RC activities; statistical summaries, analysis, prediction; and standardization of chemicals management systems; technical transfer; promotion of intraregional trade; and energy consumption). JCIA positively submitted opinions and advocated also in Chemical Dialogue as a representative of Japanese chemical industry.

Efforts in AMEICC

ASEAN Economic Ministers and Minister of Economy, Trade and Industry of Japan Consultations - Economic and Industrial Cooperation Committee (AMEICC) is a substructure of ASEAN Economic Ministers-Ministry of Economy, Trade and Industry (AEM-METI) and implements specific economic and industrial cooperation within the ASEAN region. JCIA proactively participated in the activities of AMEICC, positively submitted opinions and proposals concerning the lifting of restrictions and improvement of operations with regard to chemicals management as a representative of Japanese chemical industry, and participated in human resources fostering program for process safety as lecturers.

Introduction of Chemical Products PL Consulting Center

When the Product Liability (PL) Act was promulgated in 1994, the Chemical Products PL Consulting Center was established as an independent organization in the Japan Chemical Industry Association from the need to form the dispute handling system and not relying upon lawsuits using professional knowledge in each product field. This center handles consultations related to chemical products made by business operators and consumer centers all over Japan, in addition to general consumers from a Professional perspective. Furthermore, it emphasizes on awareness-raising activities through the provision of information, lectures, and publication of pamphlets for the prevention of accidents caused by chemical products. Nowadays, consumers obtain information via the Internet. This Center focuses on sharing information through the website. The website was updated in April 2018 to provide abundant information. The activity status of this center is disclosed on the website as monthly Activity Note reports. Furthermore, past consulting cases can be retrieved and viewed. Please actively make use of the information.



The latest information is provided in the newsletter by e-mail.

Please subscribe by e-mail to PL@jcia-net.or.jp

Various seminars and lectures of JCIA

Explanatory meetings for the introducing activities of JCIA, and seminars and lectures to foster human resources are available.

Name of seminar or lecture	Intervals	Purpose
JCIA introduction meeting	Once or twice a year	Provide a broad introduction to the activities of JCIA to members and non-members.
Risk communication training	Once a year	Improve communication skills in the dialog meeting (for members of the RC committee).
Safety management workshop on dangerous substances transportation	Twice a year	Introduce laws and regulations relevant to dangerous substance transportation and introduce revised laws and regulations.
Industrial safety course	15 times a year	Foster human resources who understand and lead enterprises. A series of 15 lectures per year.
Chemical risk forum (Introduction part)	Once a year	Introduce an outline of the necessary knowledge concerning chemicals management to newly assigned chemicals management personnel for a half day in the afternoon free of charge.
Chemical risk forum	10 times a year	Lecture the basic knowledge necessary for chemicals management and risk evaluation methods to personnel in charge of chemicals management as a series of 10 educational seminars per year.
Risk Assessment Seminar for the revised Industrial Safety and Health Act	5 times a year	Explain risk evaluation methods for chemicals necessary for implementing risk evaluation of chemical substances under the revised Industrial Safety and Health Act.
Workshop on usage of BIGDr.Worker	Twice a year	Explain how to use the BIGDr.Worker tool to support risk evaluations of the throughout supply chain, including midstream and downstream, using individual personal computers.
QSAR seminar	Once a year	Introduce an outline of toxicity prediction techniques, such as QSAR, to newly assigned chemicals management personnel.
Chemicals management seminar (GPS/JIPS Practice part)	Once a year	Introduce trends of chemicals management, methods for risk evaluations, and utilization of BIGDr. to members.
GPS/JIPS seminar	Once a year	Introduce basic knowledge of GPS/JIPS to JCIA members who were newly assigned to the JIPS in each member company.
Promotional lecture on the importance of standardization	Once a year	Provide lectures on a variety of different themes each year to promote an understanding of the importance of standardization.
Seminars for HR/labor affair staff	8 times per every 2 years	Provide seminars to foster next generation leaders of HR/labor affair staff in the chemical industry as a series of 8 seminars per year.
Information security seminar	Once or twice a year	Introduce information related to IT and security.

Information Distribution Services Provided by JCIA



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

Ankan - Net (Safety) and Environment Net)

Information on notices, communications and guidelines regarding environmental safety and restriction information from the ministries that require publicity are delivered 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

Chemical **Management Net**

The latest information regarding trends in domestic/overseas laws and regulations for chemicals management and information on the schedule of seminars provided by JCIA are delivered in the Chemical Management Net to member companies and associations registered in the Chemicals Management

Contact: Chemicals Management Department

✓ RC Net

RC Net in which member enterprises of the Responsible Care Committee are registered announces the information on the schedule of RC-related events, such as the Responsible Care activities report meeting and study meeting for members, as well as the invitations for participation.

Contact: Responsible Care Department

PR Net

Guides for event seminars, chemical experiment shows, and classes of JCIA and implementation reports are distributed mainly for general affairs and public relations personnel of member companies.

Contact: Public Relations Department

Contact

General Affairs Dept. Tel: +81-3-3297-2550 Fax: +81-3-3297-2610

Public Relations Dept. Tel: +81-3-3297-2555 Fax: +81-3-3297-2615

International Affairs Dept. Tel:+81-3-3297-2576 Fax:+81-3-3297-2615

Industry Dept. Tel: +81-3-3297-2559

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Technical Affairs Dept. Tel: +81-3-3297-2578 Fax: +81-3-3297-2615

Environmental Safety Dept. Tel: +81-3-3297-2568 Fax: +81-3-3297-2606

Chemicals Management Dept.

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Responsible Care Promotion Dept.

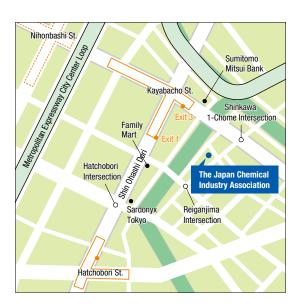
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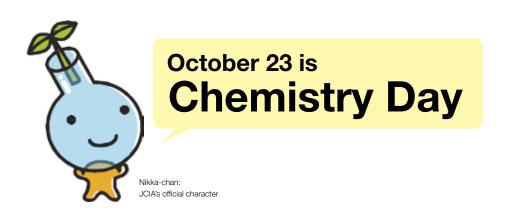


Kayabacho St. (Tokyo Metro Hibiya Line, Tozai Line) Approximately 3 minutes on foot from Exit 1 or Exit 3

Hatchobori St. (JR Keiyo Line) Approximately 8 minutes on foot from Exit B1

Editorial policy

JCIA Annual Report is published to publicize the activities of JCIA to stakeholders and members. The reports made international activities more understandable by publishing the reports of each committee, summarizing activities in the news as a member of an international society, and incorporating new information, such as the introduction of seminars and lectures provided by JCIA. In addition, the release of JCIA Annual Report/Reference Materials introduces various data regarding the activities and efforts of JCIA, which is scheduled for this autumn.







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. The report is printed on paper certified by the Forest Stewardship Council (FSC®) that it contains ingredients from forests that are managed appropriately.

JCIA Annual Report 2018



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