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Issue No, 22

2009 신년호



한국 RESPONSIBLE CARE 협의회
Korea Responsible Care Council



Korea Responsible Care Council

C O N T E N T S

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Ten Years of Responsible Care in Korea Must Be Utilized As a Rebound Strategy for the New Future

Greetings to everyone at our member companies!

At the start of a new year, I would like to give you my best wishes for the good health, happiness and luck of you and your families.

Unfortunately, the global economic crisis that began last year has put our industry in a very difficult position along with stronger regulations on environment, safety both domestically and internationally as well as the adoption of the UNFCCC (United Nations Framework Convention on Climate Change) and the REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals), forecasting even harder times for the chemical industry. However, if we could find and draw out the positive factors hidden behind the current crisis and use them to our advantage, I am certain of the fact that today's challenge will be tomorrow's opportunity.

The year 2009 is a meaningful time for us in that it is the 10th year that Responsible Care (RC) has been implemented in Korea for the enhancement, sustainable development, and acceleration of the domestic chemical industry's environment, safety and health. RC, an environment, safety and health program for the chemical industry's sustainable development, was first implemented by the Canadian Chemical Producers' Association (CCPA) in 1985 to restore Community's trust and to alter their perception that the chemical industry pollutes and harms the environment. RC has continually been supported in Korea since the Korea Responsible Care Council (KRCC) was established in 1999.

In the past 10 years, the Six Codes that systematize the Chairman's basic rules and procedures and his/her environment, safety and health activities in the chemical industry have been completed. Also, RC activities have presented the chemical industry with its future paths through management of quantitative indicators of improvements and active

communication programs with local residents such as Outreach, Open Door, and CAP.

As you already know, RC is a program based on ethics and culture to attain sustainable development in the chemical industry worldwide. It is also a voluntary program in contrast to a regulation system by law and a survival strategy in contrast to a matter of choice. There have been active discussions in the chemical industry worldwide regarding RC Global Certification and cooperation among the industry's stakeholders in guideline development and circulation networks has been strengthened for the spread of product stewardship. Moreover, capacity building programs for professionals are being actively pursued to enhance the level of RC and other discussions such as the issue of bringing in a third party audit program are under progress so that ultimately, it can contribute to the sustainable development of the chemical industry.

We must now look 10 years ahead of us based on our experiences of the past 10 years. We must establish new visions for 2020, enhance trust and understanding of our own industry so that it can be a leading industry in the future, hold pride for everyone in the industry for the settlement of many worksites out there, promote cooperation among various stakeholders, and make efforts to deliver correct information to each other.

For that, the KRCC has designated year 2009 as the year for the Settlement and Consolidation of Voluntary Management of Environment, Safety and Health as part of our envisioning of 2020. The KRCC will also make efforts to spread the culture of future-oriented voluntary management based on a new paradigm of environment, safety and health.

First, the KRCC will do its best for the settlement of voluntary management of the environment, safety and health as well as an environment safety culture seen in most advanced countries. We will enhance the efficiency of how the RC Code is implemented so that our member companies can attain their own improvements to the environment, safety and health. To us, safety is a critical foundation that cannot be compromised for anything else and defines the very existence of the industry. In this regard, we will have to devote all of our efforts into safety management and aim for zero accidents based on improvements we have already made so far.

Second, the KRCC will strengthen our public relations so as to improve voluntary management of the environment, safety and health in the overall chemical industry. We plan to do so by increasing communication with stakeholders and related organizations through RC newsletters, KRCC website, and email services with the aim of enhancing the industry's image as a whole.

Third, the KRCC will work to fulfill its social responsibilities and to improve the image it has with stakeholders. Since 2003, the KRCC has been holding "Come! Fun world of Chemistry" as part of its Outreach program to promote its and the chemical industry's overall image. It is a program intended for participating students to gain a correct understanding of the chemical industry, so that in the long run it is beneficial to the industry as a whole. We will make sure that it develops into a program of substance through our own network with the government and the local communities.

Fourth, the KRCC will substantiate and promote RC Global Certification. We will look for ways to actively respond to and provide information on current issues faced by the industry both domestically and internationally as well as to enhance confidence in RC activities by a stronger performance of RC Fundamental Feature and a third party audit program.

I sincerely hope that we can overcome and rebound from the difficulties of today by having a tiger's sharp eyes and a cow's prudent movement as the Chinese saying goes. Again, I wish you and your families all the best of luck in 2009. Thank you very much.

RC Achievements and Future Plans

Moon Guel Cha, Manager
System Management Team, Tongsuh Petrochemical Corp., Ltd.

Tongsuh Petrochemical Corp., Ltd. (hereafter Tongsuh Petrochemical) was conducting health safety and environment management activities through Process Safety Management (PSM) and some voluntary programs before it took on Responsible Care (RC) activities. Since 2000, however, the demand for RC, a company's voluntary program for health safety and environment management, has been on the rise for the domestic petrochemical industry. As such, Tongsuh Petrochemical began its RC activities in health safety and environment, and product safety sectors since its RC Inauguration Ceremony in July 2002.

Active participation was made early on from the initial stages. To begin with, the CEO of Tongsuh Petrochemical took on the role of Vice President of the Korea Responsible Care Council(hereafter KRCC) and actively sponsored various events and activities. Internally, the Continuous Improvement Rating System (CIRS) was implemented for PSM and the RC activities were vitalized and systematized with the help of Asahi Kasei Corporation, our Japanese shareholding company. This report is intended to review RC's achievements so far on its sixth year since implementation and measures to be taken accordingly in the coming future.

Since its production of acrylonitrile (AN) in 1972 for the first time in Korea, Tongsuh Petrochemical has made significant contributions to the domestic petrochemical industry and the general quality of life for mankind by diversifying its line of products and achieving quantitative growth. AN is used in a variety of everyday products from acrylic fabrics and ABS resin to nitrile rubber. Its chemical performance and excellence have also been recognized along with the development of its application technologies, which have led to the continuous enhancement of its marketability and production capacity of 300,000 tons, the largest amount in Asia per single factory unit.

Tongsuh Petrochemicals, which started out with the single product of AN, now produces other related inductive products such as sodium cyanide, EDTA, and acrylamide. In close cooperation with Asahi Kasei Corporation, its parent company, Tongsuh Petrochemical also pursues reaching a global standard in transparent management, quality management, and safety, environment, and health management.

1. The Structure of RC Activities

◆ RC Policies and Goals

1. Strict compliance
2. An accident-free workplace
3. Prevention of environment or production accidents to establish and achieve sustainable development of the following:
 - ① RC Level up ② Prevention of Accidents (Process Security) ③ Labor Safety, Hygiene/Health ④ Environment Protection ⑤ Quality Management/Product Safety

◆ RC Activities Structure

Achievements could be made through Asahi Kasei's close cooperation and support along with the strict conduct of the PDCA Cycle by utilizing RC policies and goals through internal systems and organizations.

◆ Organization for RC Activities

Organizations for RC activities are managed by the System Management Team and each department pursues establishment of an action plan suited to its own needs with one RC manager in charge per team.

2. Major Activities and Achievements

Since health, safety and environment management activities were included under RC activities in 2002, achievements were made in accident reduction through activities in 5 sectors, including RC Level up. Out of the 5 sectors that have been active for 6 years since initiation, this part intends to deal with accident preventions (construction safety) and labor safety in particular.

1) 2002~2004 (Initiation Period)

The initiation of RC in July 2002 marked the transition from safety and environment management centering around worksite operations to systematize RC activities. Education sessions during this period sought their participants to build a common sense of interest, gain a new perspective, and expand participation. Also, Asahi Kasei's close cooperation and guidance helped vitalize RC activities.

- ◆ 2002. 2~Present : Tongsoh Petrochemical's CEO takes role as KRCC's vice-president
 - 7 : Signing of all employees in favor of RC through the kick-off
 - 5/8 : Asahi Kasei's RC Information Session and monthly RC Quizzes
- ◆ 2003. 1 : Sharing of RC achievements in RC monthly reports for internal circulation and for Asahi Kasei
 - 3 : Regular Asahi Kasei RC Audit (Biannual) and Technology Exchange Sessions
 - 7/9 : RC education for all employees and benchmarking of Asahi Kasei's RC activities
- ◆ 2004. 8 : Implementation of RC manager system
 - 11 : Leaders' Workshop for the vitalization of RC activities
 - 12 : Implementation of Continuous Improvement Rating System (CIRS)

1. Organization: One person per team at mid-grade executive level

2. Role: Provide support to team manager, conduct RC-related businesses

3. Major Activities

- 1) Member of RC Managers' Meeting
- 2) CIRS Level up activities, conduct Action Items for RC Activities
- 3) Activities to improve safety and environment
 - o Safety regulations, improvement measures for preventable accidents
 - o Safety self-assessment, improvement measures for issues raised by government and public offices
- 4) Education on safety and environment(including accident cases and horizontal development)
- 5) Enactment and revision of regulations

4. Cases

1) Teamwork



[Discipline Training]



[Voluntary Improvement Discussions]



[Environment Protection]

2) Voluntary Improvement Activities



[Benchmarking of Parent Company]



[Voluntary Improvement Measures: Bicycle storages and markings]

2) 2005~2008 (Settlement Period)

Based on the RC activities of the initiation stage, this was a period of expanding and settling RC activities by sending releasing RC Activities Messages that reflect the management's RC policies, conducting an action plan suited to each department's needs, and implementing CIRS full-scale (2005) that includes the Level Up Guide for RC activities.

- ◆ 2005. 8 : Analysis of accident cases in the past 5 years and establishment of preventive measures
 - 11 : Virtual scenario training for fire explosions and distribution accidents (every year)
 - 12 : A visit to Asahi Kasei's RC Competition and information-sharing (every year)
- ◆ 2006. 3 : Safety Employee Award (every quarter)
 - 6 : Release of RC Activities Message for the Management (every month)
 - o RC policies for the management, Action Plans suited to each department's needs
 - 7/9: Workshop for Active RC Activities, discipline training for the RC managers
- ◆ 2007. 1 : Release of RC Activities Newsletter (every month)
 - o Information-sharing on cases of RC activities, communication and education support through quizzes and other knowledge-sharing
 - 3 : Improvement measures for safety education (worksite-oriented, tailored to specific needs, and participation-oriented)
 - 9 : Observation of Basic Rules for Safety
 - 11 : Introduction of Tongsuh's cases at Asahi Kasei's RC Competition
- ◆ 2008. 1~12 : Response to global demands (GHS, REACH, ICMC, etc.)
 - 5 : More active participation in social responsibilities (Sponsorship → Sponsorship + Employee Participation)
 - 5~6 : Establishment and enforcement of Special Safety Measures for regular maintenance

[An Introduction to CIRS]

1. Goals and Background

Named CIRS (Continuous Improvement Rating System) as a reconstruction of ISRS (International Safety Rating System) according to Tongsuh's own circumstances. ISRS is a global safety management system in the petrochemical industry to enhance RC activities level

2. Components: 15 Elements, 458 categories, 10 Levels

3. Level Standards

- 1) Level 4 (System Establishment): Tongsuh's current status

- 2) Level 5 (System Implementation): Global standard
- 3) Level 7 (Preventive Measures): Global top standard

	CIRS
	SMART
	SARP
	MSAT
	BAIT
	MAESTRO (TOTAL-FINA-ELF)
	REALM

3. Achievements

Since our full-scale launch of RC activities in 2002, safety accidents and other construction problems continually decreased until 2006. Since then, we have maintained our worksites accident-free in all RC sectors. Such a remarkable achievement was only possible because the foundation for RC activities was laid out by the introduction of CIRS, voluntary activities were promoted through an enhanced awareness and active communication, and critical management points were reinforced by 'RC Activity Messages' released every month. These efforts, of course, would have gone unnoticed without strict compliance, the use of Asahi Kasei's benchmarking, close cooperation with partner companies and the labor union, and the observation of basic rules and procedures on the part of RC team managers. In other words, each and every one of these parts reinforced an RC culture of realizing the PDCA Cycle.

4. TongSuh's Vision for RC Activities (2009~)

We firmly believe that we have already achieved the desired ends since the start of RC activities. However, we will not stop here but rather work toward enhancing the level of RC activities in all sectors including safety. For that, we are first pursuing a continuous increase in RC level according to CIRS, the latest management scheme for environment and safety in the petrochemical industry. Also, we are maintaining a close cooperative relationship with Asahi Kasei Corporation, our parent

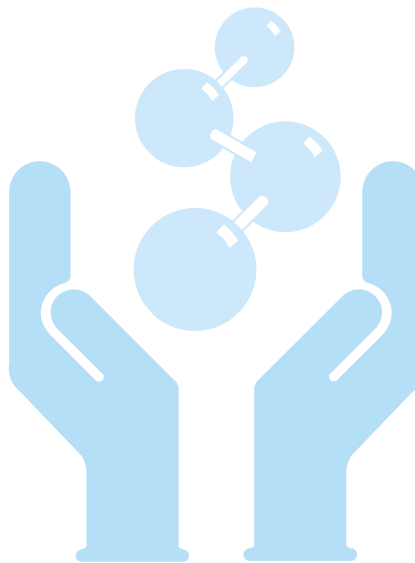
company, and are effectively responding not only to compliance and other global demands but also new issues we have come to encounter. By our consistent efforts in the future, we plan to raise our RC level to a global top standard and to maintain our worksites accident-free.

Maintain a Global Standard in 2010

- 1) Acquire PSM P Level
- 2) Acquire CIRS Level 5
- 3) Attain 3840 Accident-Free Days

Maintain a Global Top Standard in 2014

- 1) Maintain PSM P Level
- 2) Acquire CIRS Level 7
- 3) Attain 5560 Accident-Free Days





Kumho Mitsui Chemicals Awarded Grand Prix at the 16th Safety Management Awards for Large Companies in Manufacturing Sector

Kumho Mitsui Chemicals, Inc. was awarded the grand prix for the Manufacturing Sector at the Safety Management Awards on December 11, 2008, co-sponsored by the Ministry of Labor and the Maeil Business Newspaper.

The Safety Management Awards is a government reward given to meritorious companies in safety management. Introduced to spread a safety culture and to enhance CEOs' safety awareness, it is widely recognized for its authority and value in the safety field.

Kumho Mitsui Chemicals, Inc. was awarded the prize for conducting not only legal but also voluntary safety checks every year on its steel structures. It also conducted fire safety checks every three years and equipped its production sites with its own facilities to prevent accidents from gas leaks. Its safety facilities that would not allow even the smallest fault owing to negligence were, in particular, recognized as its strength in safety management. Kumho Mitsui Chemicals had also set the record of 2700 accident-free days in April 2008 by consistent and continuous efforts on the part of its management and safety managers.

LG Chem Ltd. Awarded Grand Prix for Green Management

LG Chem Ltd. was awarded the grand prix at the Global Green Management Awards held at Grand Hilton Convention Center on October 7, 2008 for the Sustainability Report sector.

Global Green Management Awards, sponsored by Korea Management Association (KMA), is a set of awards given to excellent companies enhancing their corporate values by fulfilling their social responsibilities as a company in the field of environmental and sustainable management. LG Chem Ltd. was recognized for the high quality of its sustainability report on the results of its sustainable management. The report was LG Chem's second sustainability report to be released after its first one in 2007.



The 7th Korea Responsible Care Council (KRCC) Annual Workshop Opens

The Korea Responsible Care Council (hereafter KRCC) held its 7th Annual Workshop on November 27–28, 2008 in Mauna Ocean Resort, Gyeongju. The workshop was attended by Chairman Bum-Shick Chong and 40 other persons.

At this workshop annually held to build a network of information among the employees in Environment, Safety, and Responsible Care, issues including the following were discussed: ways to conduct voluntary safety checks in the chemical industry (Young Soon Lee, Professor at Seoul National University of Technology), effects following the introduction of self-assessment programs (Seok Jung Yoon, Executive Officer at Korea Gas Safety Corporation), human engineering and industrial psychology in Human Error perspective (Dong Kyung Lee, Professor at Korea Industrial Safety Education Center), and 10 years since Responsible Care and 10 years ahead (Secretariat).

The 2008 2nd General Affairs Committee Opens

The KRCC opened its 2nd General Affairs Committee at 3 p.m. on December 13, 2008 in the KRCC Conference Room with General Affairs Chairperson Ju Hyun Kim (Honam Petrochemical Corporation) and four other committee members present.

In the meeting, reports were made on the achievements and closing accounts of 2008 and proposals were presented on business plans and budgets for 2009 and re-election of board members, which were all under discussion by the board of directors and at the general meeting. Regarding the budget for 2009, an agreement was reached to minimize the member companies' membership fee increase in order to minimize their cost burden.

The 1st Board of Directors meeting for 2009 Opens

The KRCC opened its 1st Board of Directors meeting at 11 a.m. on January 29, 2009 at Lotte Hotel Peacock Suite with Chairperson Bum-Shick Chong and 15 other board members present.

The meeting covered the first case 'achievements and closing accounts for 2008,' the second case 'business plans and budgets for 2009,' and the third case 're-election of board members'. The said cases were approved according to the Secretariat's original drafts. Also, there was a special report on the commemoration ceremony to be held in celebration of Responsible Care's 10th year, which was agreed to be financially supported by special membership fees paid by member companies of the board of directors considering the current unfavorable economic circumstances.



회원사 List of Member Companies

일반회원/ Full Members

- ◆ (주)공리양행 Connell Bros. Company, Ltd.
- ◆ 금호미쓰이화학(주) Kumho Mitsui Chemicals, Inc.
- ◆ 금호석유화학(주) Korea Kumho Petrochemical Co.,Ltd.
- ◆ 금호폴리켄(주) Kumho Polychem Co.,Ltd.
- ◆ 금호피앤비화학(주) Kumho P&B Chemicals, Inc.
- ◆ 남해화학(주) Namhae Chemical Corp.
- ◆ 대림산업(주) Daelim Industrial Co.,Ltd.
- ◆ 대한유화공업(주) Korea Petrochemical Industry Co.,Ltd.
- ◆ 동부하이텍(주) Dongbu HiTek Co., Ltd.
- ◆ 동서석유화학(주) Tongsuh Petrochemical Corp.,Ltd.
- ◆ 동성엔에스씨(주) Dongsung NSC Ltd.
- ◆ 동우화인켄(주) Dongwoo Fine-Chem Co.,Ltd.
- ◆ 동양제철화학(주) DC Chemical Co.,Ltd.
- ◆ 유한회사 듀폰 Dupont(Korea) Inc.
- ◆ 드루코리아(주) Drew Korea Ltd.
- ◆ (주)로엔드하스코리아 Rohm and Haas Korea Co.,Ltd.
- ◆ 머크(주) Merk Limited · Korea
- ◆ 바이엘코리아(주) Bayer Korea Ltd.
- ◆ (주)바커케미칼코리아 Wacker Chemicals Korea, Inc.
- ◆ 랑세스코리아(유) L'ANXESS KOREA Co., Ltd.
- ◆ 삼남석유화학(주) Samnam Petrochemical Co., Ltd.
- ◆ 삼성석유화학(주) Samsung Petrochemical Co., Ltd.
- ◆ 삼성토탈(주) Samsung Total Petrochemicals Co., Ltd.
- ◆ 삼성정밀화학(주) Samsung Fine Chemicals Co.,Ltd.
- ◆ 삼성BP화학(주) Samsung-BP Chemicals Co., Ltd.
- ◆ 쉵커코리아(주) Schenker Korea Ltd.
- ◆ 시바스페셜티케미칼(주) Ciba Specialty Chemicals Korea Ltd.
- ◆ (주)SH에너지화학 SH Energy & chemical. Co.,Ltd.
- ◆ (주)아케마 ARKEMA
- ◆ 악소노벨(주) Akzo Nobel Ltd.
- ◆ 애경유화(주) Aekyung Petrochemical Co., Ltd.
- ◆ 앓슬랜드코리아화학(주) Ashland Korea Foundry Products
- ◆ (주)에보닉데구사코리아 Evonik Degussa Korea Ltd.
- ◆ 에보닉카본블랙코리아(주) Evonik Carbon Black Co., Ltd.
- ◆ 에보닉헤드워터스코리아(유) Evonik Headwaters Korea Co., Ltd.
- ◆ SK에너지(주) SK Energy Co., Ltd.
- ◆ SK케미칼(주) SK Chemicals Co.,Ltd.
- ◆ SKC(주) 화학사업부문 SKC Co., Ltd. Chemical Business Group
- ◆ 에어프로덕트에이씨티코리아(주) Airproduct ACT Korea Ltd.
- ◆ 엑손모빌케미칼코리아 ExxonMobil Chemical Korea

- ◆ LG DOW 폴리카보네이트(주) LG DOW Polycarbonate Ltd.
- ◆ LG MMA(주) LG MMA Corp.
- ◆ (주)LG화학 LG Chem Ltd.
- ◆ 여천NCC(주) Yeochun NCC Co., Ltd.
- ◆ 용산화학(주) Yongsan Chemicals, Inc.
- ◆ 우인화학(주) U-In Chemical Co.,Ltd.
- ◆ 이네오스코리아 INEOS Korea Ltd.
- ◆ 이수화학(주) Isu Chemical Co.,Ltd.
- ◆ 제일모직(주) Cheil Industries Inc.
- ◆ GS칼텍스(주) GS Caltex Corp.
- ◆ (주)카프로 CAPRO Corp.
- ◆ 케이알코폴리머(주) KR Copolymer Co.,Ltd.
- ◆ (주)케이피케미칼 KP Chemical Corp.
- ◆ (주)코오롱 Kolon Industries, Inc.
- ◆ 폴리미래(주) PolyMirae Company Ltd.
- ◆ 한국다우케미칼(주) Dow Chemical Korea Ltd.
- ◆ 한국다우코닝(주) Dow Corning Korea Ltd.
- ◆ 한국바스프(주) BASF Company Ltd.
- ◆ 한국알콜산업(주) Korea Alcohol Industrial Co.,Ltd.
- ◆ 한국에카화학(주) Eka Chemicals Korea Co.,Ltd.
- ◆ KPX케미칼(주) KPX Chemical Co.,Ltd.
- ◆ 한국허큘레스화학(주) Hercules Korea Chemical Co.,Ltd.
- ◆ KPX화인케미칼(주) KPX Fine Chemical Co.,Ltd.
- ◆ (주)한주 Hanju Corp.
- ◆ 한화석유화학(주) Hanwha Chemical Corp.
- ◆ 호남석유화학(주) Honam Petrochemical Corp.
- ◆ (주)효성 Hyosung Corp.

준회원/ Associate Members

- ◆ 대한석유협회 Korea Petroleum Association
- ◆ 한국비료공업협회 Korea Fertilizer Industry Association
- ◆ 한국석유화학공업협회 Korea Petrochemical Industry Association
- ◆ 한국정밀화학산업진흥회 Korea Specialty Chemical Industry Association
- ◆ 한국염소알칼리공업협회 Korea Chlor-Alkali Industry Association
- ◆ 한국화학물질관리협회 Korea Chemicals Management Association
- ◆ 한국화학시험연구원 Korea Testing&Research Institute for Chemical Industry