



## The Vision of chemical industry and its social responsibility

Editor's note: This is a proposal presented by Mr. Jong-Kee Yeo, who was elected as KRCC's Vice chairman at the 6th Ordinary General Meeting

Chemical industry is a key industry that produces the materials essential to other such industries related to our daily life of food, clothing, and housing, as medicine, automobile, electronics, and construction industries. The achievements made by chemical industry and technology and its influence upon our daily life is so enormous that it is fair to say that we cannot live any single day without using any single chemical product in any form or manner. We also expect chemical industry to play an important role in resolving the issues related to the environment, food, natural resources, and energy.

However, despite the tremendous contribution it has made in the improvement of the quality of life, chemical industry has undeniably been creating negative images. In reality, chemical industry is mistaken as a principal offender for the human livelihood and ecosystem. The perception of the general public that chemical industry basically causes environmental problems and accidents leads then to stricter regulatory measures, aggravating business environment and further distorting the industry's image, eventually creating a vicious circle.

What is needed in this juncture would be for chemical industry to take initiative to break this vicious circle and to restore the trust lost to the general public and interested people—Responsible Care. Responsible Care is a promise of the industry to the society and interested people that industry will voluntarily continue to improve the environment/safety/health in and outside their place of work.

There is a growing interest in 'Corporate Social Responsibility'. Industry these days is called for a more positive contribution to the society, through such acts as education, financial support, or human resources support, instead of the passive contributions it made in the past. To chemical industry, as an industry for which it is imperative to communicate with the interested people and to live up to its promise to the society, 'Social Responsibility' cannot be stressed too much.

First we have to positively step forward to help the community and contractors grasp a correct idea on the environmental issue. We can guide the community and correct the misconception by providing accurate information to them, and assist the contractors to resolve environmental issues by sharing our knowledge and experience with them.



It is absolutely undesirable that the student these days are losing their academic interest in chemistry, apparently having been influenced by the wave of alienating science/engineering for college majors which is becoming an unsettling social issue. We can not expect chemical industry to grow continuously without the supply of talents. Encouraging the young talents to study chemistry or chemical engineering, and developing talents in these fields will be another social responsibility to be addressed by the chemical industry.

Business environment for chemical industry is getting more and more difficult, and our resource stays limited. However, I see a bright future for chemical industry, because we know what the challenges are and what steps we should take to cope with them. If we commit ourselves to the fulfillment of Responsible Care and social responsibility, chemical industry will win the competition dictated by the global economic structure and achieve sustainable development.



## Trust building between community and chemical industry

Editor's note: This is a proposal presented by Mr. Bong Ho Lee, who was elected as KRCC's Director at the 6th Ordinary General Meeting

Along the years of the contribution to the national economy and to the people's quality of life as a backbone of the nation's economic growth, chemical industry has sometimes been regarded negatively by the people in the community, due partly to the prejudiced perception that chemical industry is harmful to the environment, and partly to the accidents related to chemical industry. It is time that we made efforts as voluntarily and positively as ever to clear up such negative image and to regain the trust that is lost to the public.

Community and industry will be able to grow together in the face of the problems and obstacles that are not few, if the both sides could renew the mutual understanding about the issue of environment and safety, not for confrontation, but in the interest of common growth.

The word 'community' generally refers to a geographical common body that is formed into a specific spatial one, and is now used to have a broader meaning to also describe such conceptual community as common interest or correlation. Such community has in its nature not only the human characteristics, because it is a sum of persons who are individual organic bodies, but also such qualities as it should carry as a spatial community.

Therefore, views of a community represent the views of each individual who is the component of a community, and at the same time the views of a collective body. The points of contact made by these various views form the trust between community, individual, and industry. Following discusses the basic principles that can be considered in the establishment of trust between community and industry.

First, raising mutual awareness about sustainability.

Trust building starts from the moment when industry, community, and individuals share a common awareness about the importance of and on how to achieve the three points of constructing a lively community, accommodating diverse and productive economic activities, and preserving the ecosystem—air, water, and biological resources.



Information sharing generates common awareness, and brings people together toward the sustainable development. Industry should meet with the community—at conference or seminar—to let the people know about the industry's performance in environment/safety, to talk about the issues on industrial safety/environment, and to induce the community to rethink about their existing concern. Industry must also make sure of transparency in their management of environment/safety, and welcome community's ideas, so as to relieve the community from the environment/safety concern and to regain their trust.

Community and individuals need to renew their perception about industry and recognize industry as key foundation for their economic stability, as creator of economic values and jobs for them, and as protector of environmental and community values.

Second, protection of ecosystem.

We should have a system of resource utilization that ensures us stability of the ecosystem and meets the socioeconomic needs. Under this system, community and environment can be preserved safely. Campaigns like 'One company for one mountain and one river' can be a good example that demonstrates industry's commitment to the improvement and preservation of the environment, and of the quality of life of the community.

Third, improvement in the decision making process.

A comprehensive system of decision making is required whereby all the interested parties, including community and industry, can review and develop ideas on sustainable growth out of the various issues of interest, based on the respect of each other's culture and rights.

It is important that community and industry address common issues and join hands in developing short/long term plans and in finding solutions in order for both parties to trust each other and grow together.



# Daelim Industrial Co., Ltd. Petrochemical Division,

## – Environment/Safety/Health performance as the Management priority –

Responsible Care in Daelim's petrochemical division is a voluntary and consistent task in the management of its employees and customers. As the nation's industrial leader with a solid technological base, we know that it is imperative to take our share of the responsibility of protecting the safety and health of the concerned people as well as our employees, meeting customer needs, and protecting the local and global environment.

Responsible Care is a management initiative of chemical industries for the improvement of public image and for the restoration of trust. Daelim was among the leading group of companies who took RC when it joined KRCC in December 1999 as a founding member. There has been in Daelim a constant and thorough concern and effort to voluntarily improve the environment/safety/health, since Daelim began RC education for its entire employees who committed themselves to the voluntary RC implementation in October 2001 by signing a pledge and by the kick-off declaration in February 2002. Newsletter and event production have now become a part of Daelim's everyday management for wide-spreading RC in and outside the company. As a core RC activity to be of practical service to the community, we have also involved ourselves in a wide variety of community service campaigns.

Following discusses Daelim's major RC activity which we hope will benefit all KRCC members in further developing the RC activity.

### 1. RC Code implementation

| Code                      | Output<br>in 2002 | Output<br>in 2003 | Target<br>in 2004 | Output<br>in 2004 | Target<br>in 2005 |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Employee<br>Health&Safety | 4.8               | 5.2               | 5.5               | 5.5               | 5.6               |
| Emergency<br>Response     | 4.5               | 4.9               | 5.0               | 5.1               | 5.3               |
| Process Safety            | 4.7               | 5.2               | 5.5               | 5.4               | 5.6               |
| Pollution<br>Prevention   | 4.4               | 4.9               | 5.0               | 4.9               | 5.1               |



## 2. Risk management system designed for accident prevention

Making prevention the safety priority policy, we manage facility safety and human safety separately, for both we have adopted and are aggressively running a comprehensive accident prevention program.

For facility safety, we make sure that the entire process from design stage to operation is put through mandatory safety management procedures like risk evaluation, change management, and pre-operation inspection.

For human safety, we focus on raising safety awareness through regular and well-organized first-hand education, refresher drills, site patrol, day-to-day safety inspections by a team of supervisors, environment/safety staff, and contractors. Along with these activities for preventing human error, performances are monitored for the evaluation of individual departments, so as to motivate voluntary safety awareness and to prevent accidents across the company.

We are running STOP, an advanced safety program developed by DuPont, which we adopted in January 2005. We are planning to obtain OHSAS 18001 within this year, which we hope will allow us to establish a solid corporate safety culture.

## 3. Thorough system and activity of emergency response

We have in place a well-structured emergency response system to minimize losses in personnel and property in case of emergency—fire or explosion. We offer regular and practical training to our employees to foster their readiness for emergency situation and for first-aid response. We signed up a co-assistance agreement with neighboring companies and concerned fire-fighting authorities to channel a speedy assistance in the event of major fire. The SMS text service we are providing to the community should enable us to communicate with neighboring communities about emergencies and to process a speedy evacuation.

- Integrated Risk Management System, IRMS

Designed for use in the event of major accidents like fire, explosion, and toxic leakage, this is a system that enables us to mark the level of risk on the map, determine the severity of risk visibly, and to minimize losses to the neighboring area.

- Gas Spread Loss Forecast System

First to be adopted ever in Korea, this system is designed for a quantified emergency evaluation and measure, including potential risk examination based on process risk assessment, accident frequency analysis, and accident result analysis, so as to keep losses to the company and community to a minimum. We are planning to put these system into use to a larger degree.

## 4. Maximized recycling and campaign to protect community environment

In accordance with "The Method of Major Pollutant Factor Control" which we developed in 2002 to make our workplace a pleasant environment-friendly one through maximum control of the major

pollutant factors. We conduct inspection on the sources of pollution a regularly(quarterly or semi-quarterly) to minimize generation of pollutants and to prevent pollution. Responsible departments and system departments are furnished with VOC (Volatile Organic Compounds) measuring instrument to check at least on a monthly basis for VOC leakage that causes foul odor or toxicity.

In the control of the entire process of waste generation, beginning from its source to moving, storage, and disposal, more than 90% of the total waste generated is recycled, a notable contribution to cost reduction.

Beginning May 2005, we plan to adopt "Real Name System for Waste Generation" to reinforce separate waste disposal and to maximize recycling, with a vision to make a clean workplace come true.

## 5. Comprehensive Health Management Program

### ● Patient follow-up program

This is a program both for personal health and for labor capability management, which enables us to thoroughly and systematically follow up on the patients and potential patients.

### ● Prevention program for Musculoskeletal & noise-induced hearing problems

Affecting all employees, this is a program primarily for the prevention of Occupational Health problems, and for the enhancement of labor capability and productivity. Under this program we maintain/repair facilities to provide employees a better working environment, and provide full-scale health management such as medical treatment and education, so that we will be able to minimize or prevent occupational illnesses like Musculoskeletal or noise-induced hearing problems.



### ● Health management program

This is a computerized health management program that enables us to maintain personal health history, track data management, infirmity management, health promotion, and other preventive measures that employees can make use of in their personal health management.

## 6. Company-wide community services campaign

We believe in community services as a management mission that should ensure us a sustainable corporate growth, and we are putting as much managerial effort as we can into this campaign for community service. Whereby we can be of help to the development of the community and can share with our neighbors their distresses and pains. "Daelim Hansoop Volunteer Corps" is a company-wide volunteer organization that integrates the existing individual sectional social services activities, grouped into facility repairs, sharing of hearts, and scholarship funding support, to which every employee is encouraged to join in at least one such activities.

We have performed quarterly community services activities beginning from the fourth quarter of 2004 in coordination with the Yeosu senior citizens welfare center, and raise fund to aid similar facilities and needy neighbors.

New employees are required, as a mandatory course for pre-placement training, to provide social services such as "Experience learning", and "Event for senior citizens in welfare center". We invited employees and their families to a "lecture course" on the subject of social services. "Island services", "Kimchi preparation", and various other services programs are scheduled for the future so that we will be able to conduct such activities as a continuing process.

| Nature of activity       | Program   | Target              | Frequency      |
|--------------------------|---|---------------------|----------------|
| Environmental protection | One company for one mountain/one river  | Yeosu complex       | quarterly      |
|                          | Community environmental support   | Yeosu complex       | as needed      |
| Social services          | Program support<br>("Come, Fun world of chemistry")<br>for elementary school                            | Yeosu               | yearly or more |
|                          | House repair<br>1) Old people who live alone,<br>Minors who are head of the family<br>2) Island service | Yeosu neighborhood  | quarterly      |
|                          | First-hand learning   | Yeosu neighborhood  | as needed      |
|                          | Social service orientation  | Employee and family | yearly or more |
|                          | Event for alone-living elderly  | Yeosu neighborhood  | yearly or more |
|                          | Kimchi preparation  | Yeosu neighborhood  | yearly or more |
|                          | Fund raising for need neighbors   | Yeosu neighborhood  | yearly or more |





## ● 2005 1st Board of Directors Meeting for KRCC

KRCC held the first board of directors meeting in 2005 at 11:00 on January 20, 2005 at Seoul Plaza hotel(Dohwa Room). Attended by Chairman Won-Joon Hur and 14 KRCC directors, the meeting reviewed and approved the first agenda, 'the 2004 business and budget report', as proposed, and approved the second agenda, 'the 2005 business plan and budget', after making partial revision.



## ● KRCC's 6th Ordinary General Meeting

KRCC held the 6th Ordinary General Meeting at 11:00 on February 3, 2005 at Seoul Plaza hotel(Duksu Hall). Attended by Chairman Won-Joon Hur and 63 from member companies, the meeting reviewed and approved the first agenda, 'the 2004 business and budget report', and the second agenda 'the 2005 business plan and budget' as proposed.



부익안전에 대한 회장설명



재선임 부회장 인사말(이균철 사장)



신임부회장 인사말(여종기 사장)



건배제의 (이균철 사장)



## ● New Officers elected

The 6th KRCC Ordinary General Meeting elected new officers to replace the leaving officers who were relocated for other assignments

### 〈신임 이사 New Directors〉



우 상 선 Sang-Sun Woo (재선임)  
(주)제일모직 부사장  
Vice President, Cheil Industries Inc.



이 봉 호 Bong-Ho Lee  
여천NCC(주) 공동대표이사  
Co-CEO, Yeochun NCC Co.,Ltd.

## ● Participation in KOCIC

Korea Chemical Industry Council, KOCIC, held its inaugural meeting on March 25, 2005 at 10:00 at Hotel Shilla (Maple Room) and pronounced its official inauguration. Headed by Chairman Jae-Kap Sung, KOCIC was established based on the mutual understanding among 10 local chemical-related organizations, including KRCC and KPIA, for the protection of the rights and interests of the domestic chemical industry. KRCC chairman Mr. Won-Joon Hur had been involved in this project as the chairman of the promotion committee and after KOCIC's official launch, Mr. Hur was appointed as the joint Vice Chairman of KOCIC.



허원준 추진위원장 경과보고



성재갑 KOCIC 회장 취임사



이희범 산자부장관 축사



참석자 기념촬영



## Global Charter

**Responsible Care** is the global chemical industry's environmental, health and safety (EHS) initiative to drive continuous improvement in performance. It achieves this objective by meeting and going beyond legislative and regulatory compliance, and by adopting cooperative and voluntary initiatives with government and other stakeholders. Responsible Care is both an ethic and a commitment that seeks to build confidence and trust in an industry that is essential to improving living standards and the quality of life.

The Responsible Care Global Charter arose from an examination of chemical industry practices and performance that has evolved since the mid-1980s, and was shaped by considering the recommendations of independent stakeholders from around the world. The Charter goes beyond the original elements of Responsible Care since its inception in 1985. It also focuses on new and important challenges facing the chemical industry and global society, including the growing public dialogue over sustainable development, public health issues related to the use of chemical products, the need for greater industry transparency, and the opportunity to achieve greater harmonization and consistency among the national Responsible Care programmes currently implemented. The International Council of Chemical Associations (ICCA), through Responsible Care, will continue to undertake actions consistent with the environmental principles of the United Nations Global Compact.

The Responsible Care Global Charter contains nine key elements. They are:

### 1. Adopt Global Responsible Care Core Principles

The Global Responsible Care Core Principles commit companies and national associations to work together to:

- Continuously improve the environmental, health and safety knowledge and performance of our technologies, processes and products over their life cycles so as to avoid harm to people and the environment.
- Use resources efficiently and minimise waste.
- Report openly on performance, achievements and shortcomings.
- Listen, engage and work with people to understand and address their concerns and expectations.



- Cooperate with governments and organisations in the development and implementation of effective regulations and standards, and to meet or go beyond them.
- Provide help and advice to foster the responsible management of chemicals by all those who manage and use them along the product chain.

## 2. Implement Fundamental Features of National Responsible Care Programmes

Each national chemical association establishes and manages its own national Responsible Care programme based on a set of eight common fundamental features. They are:

- Establish and implement a set of Guiding Principles that member companies sign.
- Adopt a title and logo that are consistent with Responsible Care.
- Implement management practices through a series of systems, codes, policies or guidance documents to assist companies to achieve better performance.
- Develop a set of performance indicators against which improvements can be measured.
- Communicate with interested parties inside and outside the membership.
- Share best practices through information networks.
- Encourage all association member companies to commit to and participate in Responsible Care.
- Introduce and apply systematic procedures to verify the implementation of the measurable elements of Responsible Care by member companies.

Industry leaders support the national associations in the fulfillment of these fundamental features. The Charter defines specific commitments consistent with the fundamental features.

## 3. Commit to Advancing Sustainable Development

Responsible Care is a uniquely designed initiative that enables the global chemical industry to make a strong contribution to sustainable development. Through improved performance, expanded economic opportunities, and the development of innovative technologies and other solutions to societal problems, the industry will continue taking practical steps to implement initiatives in support of sustainable development. The industry will expand its dialogue with stakeholders to identify additional opportunities to contribute to sustainable development through Responsible Care.

The chemical industry recognizes the important contribution that can be made through capacity building of the sound management of chemicals to achieve sustainable development goals. The industry will continue to support national and international initiatives to advance these goals.





## 4. Continuously improve and report performance

Each chemical company that implements Responsible Care is expected to collect and report data for a core set of environmental, health and safety performance measures. Each national association is expected to collect, collate and report this data from its members in each country. The data will also be collated and reported publicly at the international level and be updated every two years at a minimum.

In order to continue to achieve improved performance, each national association that implements Responsible Care will:

- Periodically assess, with the participation of their members, stakeholder expectations for expanded or modified performance reporting or other aspects of performance.
- Commit to providing practical help and support in sharing and adopting best practices to improve environmental, health and safety performance, and other assistance related to Responsible Care implementation needs.

Chemical companies that implement Responsible Care will:

- Adopt a management systems approach to implement their Responsible Care commitments consisting of the internationally accepted elements of Plan–Do–Check–Act.
- Utilize clean and safe technologies and processes when building new plants or expanding their current facilities around the world.
- Go beyond self-assessment of the implementation of Responsible Care and adopt verification processes carried out either by associations, government bodies or other external organisations.

## 5. Enhance the Management of Chemical Products Worldwide Product Stewardship

Product stewardship issues will increasingly shape the Responsible Care initiative in future years. The ICCA will establish a strengthened global programme to evaluate and manage chemical-related risks and benefits by developing a unified product stewardship management system approach. This approach will be in place by 2006.

National associations, working with their member companies, will commit to this concerted global effort by establishing processes for Responsible Care companies to:

- Re-commit to full implementation of current Responsible Care product stewardship commitments, including all existing codes, guidelines and practices.
- Improve product stewardship performance and increase public awareness of the industry's commitments and results.
- Develop and share best practices through mutual assistance.
- Work in partnership with upstream suppliers and downstream chemical users to collaborate on improved processes for the safe and effective uses of chemicals.
- Encourage and sustain support for education, research and testing approaches that will yield useful information about the risks and benefits of chemicals through such initiatives as the High Production Volume chemical testing program and the Long-range Research Initiative.



- Implement enhanced product stewardship commitments consistent with the ICCA's Global Chemicals Management Policy, and periodically assess product stewardship practices in the light of evolving societal expectations for chemical products.

## 6. Champion and facilitate the extension of Responsible Care along the chemical industry's value chain.

Responsible Care companies and associations commit to promoting the Responsible Care ethic, principles and practices along their own value chains and communicating the importance of the industry's economic and social contributions.

Chemical companies and national associations commit to increase dialogue and transparency with their business partners and other stakeholders and to expand knowledge and understanding of the management of chemicals. They will also work in partnership with national governments, multi-lateral and non-governmental organisations to define mutual assistance priorities and share access to information and expertise.

The global chemical industry will develop and share information and practices across companies consistent with competition law and other legal requirements.

## 7. Actively support national and global Responsible Care governance processes

The chemical industry, through the ICCA, commits to an enhanced, transparent and effective global governance process to ensure accountability in the collective implementation of Responsible Care. The governance process will be implemented by the ICCA and will incorporate such issues as tracking and communicating performance commitments; defining and monitoring the implementation of Responsible Care obligations; supporting national association governance; helping companies and associations to achieve Charter commitments; and establishing a global process for revoking, when necessary, the Responsible Care status of any company or association that fails to meet its commitments.

## 8. Address stakeholder expectations about chemical industry activities and products.

The global chemical industry will extend existing local, national and global dialogue processes to enable the industry to address the concerns and expectations of external stakeholders to aid in the continuing development of Responsible Care.

## 9. Provide appropriate resources to effectively implement Responsible Care

Responsible Care is the signature performance initiative of the chemical industry and will have an increasingly important part to play as a basis for the industry's views in societal and regulatory discussions. Companies participating in Responsible Care must support and meet the requirements of the national programmes and provide sufficient resources for implementation.



### ■ Yeochun NCC Co., Ltd. held RC declaration ceremony

Yeochun NCC Co., Ltd. (Co-CEO : Young-Koo Park) declared RC management at a ceremony held at its No. 2 Yeosu plant on January 3, 2005 in the presence of the joint representatives, union leader, and employees. At the ceremony, background of adoption of RC and progress was reported, and 3 representatives, of manager and union, an employee who has been awarded for excellent performance, made a pledge on behalf of all employees on the basic environment/safety/health policy.

### ■ LG Chem Ltd. held 'Chemistry Camp'

LG Chem Ltd. (President : Ki-Ho No) invited 300 students from the elementary schools in Yeosu industrial complex to 'Chemistry Camp' from January 27 to 29, 2005 at Bugok Hawaii. A hands-on program launched last summer to raise children's awareness about the importance of chemistry and to provide a memory building fun time, this camp is provided as a vacation activity. This program got a response that was beyond expectation, and the company is planning to expand the program into more schools in other areas.

### ■ LG MMA Corp. awarded as Yeosu complex's most outstanding company in safety management

LG MMA Corp. (President : Han-Sup Kim) was awarded the Mayor's prize for the most outstanding achievement in the prevention of environment/safety accident among the companies in Yeosu industrial complex on January 25, 2005. All the employees at LG MMA, inspired by this gratifying recognition, are dedicated to make more earnest efforts to this end.

### ■ Rohm and Haas Korea Co., Ltd. relocated its headquarters

Rohm and Haas Korea Co., Ltd. (President : Hoe-Sik Chung Ph.D.) moved its headquarters on April 22, 2005. The new address is 6th floor of Daefyung Seocho Tower building, 1237-30 Seocho-dong, Seocho-ku, Seoul.

### ■ New presidents of member companies



박진수 Jin-Soo Park  
LG석유화학(주) 대표이사  
President, LG Petrochemical Co., Ltd.



이인원 In-Won Lee  
(주)카프로 대표이사  
President, CAPRO Corp.



정회식 Hoe-Sik Chung  
(주)룸엔드하스코리아 대표이사  
President, Rohm and Haas Korea Co., Ltd.