

Responsible Care® and CEO's Commitment

"Even a journey covering a thousand miles starts with the first single step." This is one of my most favorite proverbs. Responsible Care® is a never-ending journey which all of us take in our pursuit of improving the environment, safety, and health. The Korean Chemical Industry took the first step on December 6, 1999 with the inauguration of the Korea Responsible Care® Council. This year marks the fourth year since the council was formed, and Korea will be hosting the 8th Asia Pacific Responsible Care® Conference in Seoul this November 2003. Participants in this conference will be invited to mapping out the future path of this development, working hand in hand with participants from countries in other parts of the world. According to an article in the Careline magazine for global Responsible Care® news, the International Council of Chemical Associations (ICCA) is working on setting up a Global CEO Dialogue which is intended to provide a platform for global strategic considerations in relation to Responsible Care®. The emphasis will be on the public perception on Responsible Care®, global chemical management, links with sustainable development, global standards, and other important issues.

The Korea Responsible Care® Council hosted a CEO seminar on this subject on the 27th of February this year. The role of the CEO has been always necessary for the success of Responsible Care®, both domestically and abroad. I would like to propose the following actions as being critical to a CEO's commitment.

First and foremost, a CEO should lead all measures for the continuous improvement of environmental, safety, and health performance and act as a catalyst. One of the key tasks of a CEO is to effectively develop, bring together, and distribute available resources, and to maximize corporate profit, assuring a license for the future undertakings of a company. To achieve this goal a CEO needs the trust of the general public, customers, authorities, and other concerned stakeholders, as a reward for the improvement the company has made in the environmental, safety, and health activities.

Secondly, a CEO should spearhead the implementation of Responsible Care® to the community management. Community management refers communicating with people who directly or indirectly affect a company's present and future, as well as to honoring agreements with these people. These aims can be achieved through dealing openly with not only existing company functions, like customer service, public relations, investor relations, and government affairs, but also open dialogue with local citizens, employees, authorities, schools, environmental organizations and other NGOs. Therefore, in order to reach out more effectively to the public in general, the upcoming 8th Asia Pacific Responsible Care® Conference has "Responsible Care® and the community: toward a perfect partnership" as its theme. This will hopefully be an excellent venue for each and every interested participant to address his wishes and proposals on how to achieve the stated aims. I am sure that this will be a valuable opportunity for CEOs to listen to what stakeholders have to say. This in turn should benefit a CEO in implementing community management.

Thirdly, a CEO should secure that Responsible Care® is embedded in the daily routine of each and every employee. This is because the success of Responsible Care® is totally dependent upon the success of individual employees in improving their environment, safety, and health. In other words, this means that the issues of environment, safety, and health are not issues that concern only the management. It may not be easy to convince all our employees that environment/safety/health is an important part of their daily responsibilities, but with perseverance and leadership it is possible to get the message across. For example, explaining the Product Stewardship as one of six codes of management practice, arguably the most perfect management practice of Responsible Care®. This can be realized through activities, which involve sales personnel in contact with customers. For Information Technology personnel, who are responsible for providing employees with communication of both inside and outside information, by convincing them of the fact that without their assistance, the flow of environment/safety/health related requirements can not be provided.

Many thanks go to CEOs, who in the difficult times of the last financial crisis and the economic downturn could have easily dismissed Responsible Care® as a cost factor, but who nevertheless forged ahead and implemented the programme. As a result of their dedication and foresight, Responsible Care® is now a keyword in vocabulary of the Korean chemical industry. I have been a firm believer that every CEO in our companies is an active player in cooperation with the Korean local chemical industry and hence enjoys benefits as a part of the main stream. Responsible Care® is a programme designed for the chemical industry as a whole and we must all be aware that not only as individuals, but as an industry we need to ensure that we meet the expectations of the community and by doing that secure a long term licence to operate. As a country which features among the world's producers, now, is the time for Korea to prove its leadership in the improvement of environmental, safety, and health performance. I strongly encourage all CEOs and Executives in Korea to join in this worthy cause of making Responsible Care®, to bloom to its fullest in Asia.

KRCC is preparing the 8th Asia Pacific Responsible Care® Conference, November 4-7, 2003. Here is some news from the APRCC 2003 Organizing Committee.

● APRCC Homepage (www.aprcc.com)

APRCC 2003 Organizing Committee—publicity team headed by Keun-chang Yoo—opened APRCC homepage in March. Available in English and Korean, APRCC homepage will serve the participants for the registration, hotel or tour accommodations, and other related information. Using the homepage, participants can directly process their registration either off or on line, and can also confirm their registration using the registration confirmation segment.

● 1st announcement brochure for APRCC 2003



The 1st announcement brochure was sent out in March to 12 participating countries, RCLG member countries, and other interested people. Published by APRCC Organizing Committee(co-chairmen: John Jongkoo Jeong; Brian Bum Kim), this brochure provides schedule, venue, committee chairman's invitation, programs(tentative), registration form, and other information. Program development is under way in coordination with the advisory board, including selection of presenter from within and abroad. Once the presenter selection is complete, the 2nd brochure will be printed and sent out.

● APRCC 2003 Organizing Committee meeting

APRCC 2003 Organizing Committee meeting was held on April 10 at the KRCC conference room. Attendants—committee chairman John Jongkoo Jeong and 24 on the task force—discussed selection of local presenter, publicity, sponsorship, invitation of concerned government authorities or organizations, and other related issues. It was decided at the meeting that each member company would recommend presenter, and that member companies would assist in inviting the outside organizations who are in the same area of their operation. To facilitate a smooth flow of information and communication among the committee members, subcommittee meetings – Technical, Publicity, Sponsorship & Finance – will also be held.

● APRCC advisory board & CCN(Country Coordinator Network)

For the promotion of the continuing and stable development for future APRCC on the occasion of the upcoming Seoul APRCC 2003, the Organizing Committee set up a network made up of the advisory board and the 12 participating countries' coordinators. The advisory board have as of present 7 members, including personnel from the Responsible Care organizations of the countries who have been involved in the formation and hosting of previous APRCC meetings, and will be taking part in the process of presenter recommendation, and of presentation material review and selection. Consisting of APRCC countries' Responsible Care coordinators, CCN will be assisting communications among the participating countries, including such works related to APRCC 2003 as participant contact and event organization. CCN will continue its function as a channel for information on Responsible Care activities the member countries will be doing afterward the APRCC 2003.

CEO Seminar for RC reinforcement and the 4th General meeting

CEO Seminar and the 4th General meeting for RC reinforcement was held on February 27, 2003 at Hotel COEX Intercontinental Seoul (Harmony ball room). At the General meeting, the 2002 business and result was reported. Also discussed and approved were 2003 business plan and budget proposal, plan for hosting the 8th APRCC, and election or reelection of Marcos Gomez as Vice chairman, Won-joon Hur as Auditor, and 5 Directors. CEO Seminar was held ahead of the annual meeting on the subject of "CEO's role in the environment/safety and Responsible Care as a global management strategy". President of DuPont Asia Pacific, Dong-soo Kim, in his speech titled "Responsible Care is Good Business Strategy", stressed on the importance of Responsible Care and on the CEO's responsibility in getting Safety Model established and ready, as well. Implementation committee chairman Moo-young Hwang of Dow Chemical Korea presented the seminar with a 10 points guideline for environment/safety manager and 10 points proposal to CEO under the title of "How to make environment/safety/health the No. 1 priority", which was proposed after the discussion at the December 2002 RC coordinator workshop in Gyeongju, Korea.

신임 이사 (New Director)



윤영학 Y. H. Yoon
엑손모빌케미칼코리아 대표이사
President, ExxonMobil Chemical Korea



빌리미첼 Billy R. Mitchell
삼성석유화학(주) 수석부사장
Executive Vice President,
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손석원 Seog-weon Son
삼성종합화학(주) 공장장
Plant Manager,
Samsung General Chemicals Co.,Ltd.

KRCC Regulatory Committee Meeting

Regulatory Committee(chairman: Director Brian Bum Kim of Bayer Korea) meeting was held on March 10, 2003 at SK's conference room for the discussion the 2003 business. Two subcommittees -environment; safety/health-were formed to be headed Chang-hee Lim, Manager of LG Chemical, and Soo-young Lee, Manager of SK, respectively. Regarding committee's future activity, it was also agreed to pursue a continued cooperation with governmental or other concerned organizations, and to continue on the study of the advanced laws and information in an effort to solidify the committee's footing.

Implementation Committee Chairman Moo-young Hwang, speaks on Responsible Care at a Preventive Medicine and Public Health seminar held by Medical Collage of Yonsei University

Implementation committee chairman Moo-young Hwang spoke at a seminar on the topic of "Beginning of Responsible Care and its significance for chemical industry". Hwang spoke as an invited lecturer for the university's Environmental Pollution Research Center, and the seminar, which was attended by 50 some people, including professors in preventive medicine, environmental health, industrial health, health policy, epidemics/disease control, and hospital administration, and turned out to be a very useful opportunity for the participants to raise their awareness about the Responsible Care activity.



Responsible Care is Good Business Strategy

President Dong-soo Kim of DuPont Asia Pacific addressed to the KRCC CEO seminar which was held on February 27, 2003 on the subject of the meaning and significance of Responsible Care to the management strategy of global business entities. Following is the content of Kim's speech.

OBJECTIVES OF RESPONSIBLE CARE

- Improve SHE performance
- Gain societal acceptance
- Create benefits for companies
- Dialog with stakeholders

The objective of Responsible Care is to improve environment /safety /health performance, earn societal consent to chemical industry, create corporate profits, and to continue dialogue with interested parties.

COST OF NOT FOLLOWING RESPONSIBLE CARE

- Lost business, due to supply disruptions
- Loss of life or injuries to employees, contractors & the community
- Actions, for failure to follow regulations
- Re-building badly damaged facilities
- Litigation
- Impact on corporate reputation & market capitalization

If we as companies neglect Responsible Care, which is a promise industry made to the society, we expose ourselves to accidents, casualties, and the consequential material damages, and we end up endangering our corporate reputation, not to mention the difficulty in funding for business continuity. According to the 1997 data, the total loss that was caused by the world's 100 largest chemical/oil refinery accidents over the past 30 years amounts to US\$7.5 billion. On the average it is a loss of US\$75 million for each accident, but the actual damage to the companies should go far beyond.

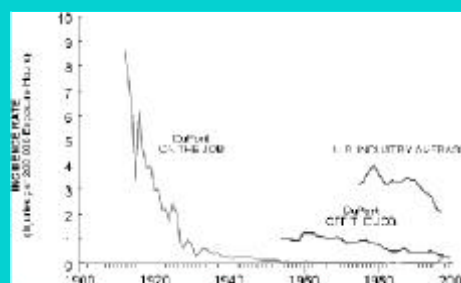
Established in 1802 as a science company, DuPont has operations in 70 countries, of which 14 are based in the Asia Pacific region. DuPont set as its core values for the management performance safety, environment, ethics, morals, and respect for people.

HOW DO YOU COMPARE?



*U.S. Bureau of Labor Statistics, 2001 Data
**DuPont 2002 LWC = .46

DuPont Lost Workday Case Rates



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According to the data of the US labor statistics bureau, environment/safety performance of the chemical industry is better than other sectors of the industry. I regard the reason lies in the Responsible Care that chemical industry has actively been practicing. DuPont set its goal at zero accident and continued its efforts to meet the goal, and as shown in the graph could keep the rate below the US average. But we know a lot more is yet to be done. DuPont believes in a workplace



where nobody gets hurt, and we try to provide an environment where workers can do their job safely, while at the same time committing ourselves to the prevention of accidents that can happen to our employees outside the workplace.

ENVIRONMENTAL PROTECTION

(Millions of Pounds Reduced Globally)
1990 2000

- Air Carcinogens 7.6 0.36 ↓ 95%
- Priority Air 55 11.5 ↓ 80%
- Greenhouse Gases 23.7 10.4 ↓ 56%
- (MMmtCE)
- Deepwell Disposal 166 20 ↓ 88%
- TRI Releases 225 50 ↓ 78%
- TRI As Generated 890 365 ↓ 60%
- Hazardous Waste 2750 1700 ↓ 38%

The Goal is Zero

Core Values

- Safety & Health: **Goal is Zero**
- Highest Ethical Standards
- Environmental Stewardship
- Respect for People

DuPont puts safety, health, ethics, environmental stewardship, and respect for people before business results. To us, these values come first, and we work and live asking ourselves of these questions. In other words, we have our conduct projected upon our answer to the question, "Will my family and friends not feel shameful for what I have done, if that is reported in the newspaper?"

As this picture(The Hazard Pyramid) shows, it takes some 30,000 factors of unstable states or conditions for an accident causing one human casualty to occur. The place we should be doing our "job" to prevent accident is right at the bottom of the pyramid, in other words where unsafe actions and conditions exist. We now understand that unless we get this phase performed carefully and thoroughly, we could end up in accidents.

There are three aspects in process safety and risk management: technology; facility; and personnel. Most companies are well aware of the technological aspect, but in the question of putting the technology into facility in its building and utilization, some experience difficulties. However, by far the biggest question is personnel. As we have seen in the case of the recent subway fire in the southern city of Daegu, people without any kind of readiness training will invariably follow their instinct and common wisdom, thus are unable to properly respond to emergency situation. I believe that it is CEO's responsibility to establish a right safety model, educate, and train the employees.

About 70 to 80% of all the plants in the world do not offer safety education or training and rely on the workers' instinctive response. Accident rate drops down significantly if CEO's positive supervision and control is in place, but this happens to be the most tricky part. In DuPont every meeting begins with the discussion about accident or near-miss. We do it because we are convinced that safety comes from the pride the employees have in working in a safe organization which makes certain that employees encourage each other, and this concept is thus deeply rooted in the form of the corporate culture. For DuPont, Responsible Care is a very useful framework with which we stay and mold a unique corporate culture.

EU Future Chemicals Policy and our Strategy

The Commission of the European Communities published the "White Paper on the Strategy for a future Chemicals Policy" in February 2001. Regarded as one of the advanced comprehensive systems of precaution for the handling of chemicals, the Paper is the basis for a new EU chemicals policy which the Commission has been working on with a plan to put forward for legislation as soon as the drafting is complete. It is highly anticipated that this policy will make a huge impact on the international trade and tightening of regulations concerning human health and the environment.

1. Background of the introduction of the new chemicals policy

The chemical industry in Europe employs 1.7 million people and as many as 3 million jobs are dependent on this industry. Of the world's total chemical production of €1,244 billion estimated for 1998, Europe accounted for 31%, or €390 billion. As Europe's third largest manufacturing industry, the chemical industry has had about 100,000 different substances on the market before the enforcement of the new evaluation process in 1981. Very little of the impact of these chemicals on human health and the environment is known to the concerned authorities (See Table 1). Exposure to certain chemicals is regarded as a strong candidate that causes certain diseases, such as testicular cancer in young men, allergies, and asthma, which have increased rapidly over the past decade.

Under the current system and process of evaluation which is far too complicated and slow, the industry will have to wait for too long before acquiring the legal authorization to develop new or alternative material that can cause damage, which allows the industry justification for restriction application. This not only demoralizes the industry in their commitment for advancement for the future, and also makes it very difficult to verify the causal relation that the use of such substance might have caused, because of such a big time difference between the time of use and the time when problem occurs afterward. Even if any such causal relation is identified, it fails to serve as a deterrent, for the compensation is not sufficient in amount, compared to that of the US.

This is the background for EU to have decided to introduce REACH system as a coherent comprehensive chemicals policy. Short for Registration, Evaluation and Authorization of Chemicals, REACH is a system of coherent registration and management of the information on the hazard of chemicals in general.

2. REACH system

The overriding goal of REACH is to have all the chemicals under a single system of registration so as to provide for a high standard of human and environmental protection, and to help EU chemical industry strengthen its competitiveness as well.

1) Main points of REACH system

- **Imposing on industry the responsibility to prove safety**
 - Currently the concerned government authorities are responsible for proving the safety of the existing substances.
 - Henceforth, industry will be responsible for registration and initial assessment on both the existing and new substances.
 - ※ Manufacturer, importer, and downstream user are also liable to the supply of necessary data and information.
 - Industry is responsible for providing, either by labelling or in the form of safety data sheet, data on the hazard of the chemicals they are marketing.
- **Centralized control of existing and new material**
 - More than 1 ton of all substances that are produced and marketed ought to be information shared, evaluated, and registered.
 - Special control of hazardous or more than 100 tons of substances.
- **Import restriction in accordance with Precautionary Principle**
 - In accordance with the "Precautionary Principle" regarding non-registered substances which was newly introduced, import of substances that are not registered in EU will be restricted.
- **Regulation on substances that are marketed as ingredients**
 - Products that are manufactured as substances or contain chemical ingredients will be controlled according to regulations to be provided specifically for this purpose.
 - Regulation on toys, textiles, goods for children, leather, and shoes that are imported to Europe.
- **Restriction on imports containing unidentified substances**
 - Information should be provided on substances that are contained in the imports and not registered in Europe.

(1) Registration

- 30,000 substances in quantity exceeding 1 ton per year
- Producers and importers are required by 2012 to register the target substances to the Database for the period of time depending on the product quantity and on the degree of hazard.
- Dangerous substances that stipulated in Annex 1 are required to be registered by 2005.

〈Table 1〉 Chemicals in Europe

Chemicals	Quantity
EINECS ¹⁾ registered existing chemicals	100,000
Data collected on HPV ²⁾	2,500
Data collected on LPV ³⁾	8,000
Total IUCLID Data ⁴⁾	10,500
Priority chemicals	110
Risk Assessment completed chemicals	20~30

Note : 1) EINECS(European Inventory of Existing Commercial Chemical Substances) : List of existing Europe chemicals prepared by EU Commission

2) HPV chemical(High Production Volume chemicals): Chemicals produced in a high quantity in excess of 1,000 tons

3) LPV chemical(Low Production Volume chemicals): Chemicals produced in a low quantity ranging between 10 to 1,000 tons

4) IUCLID(International Uniform Chemical Information Database): Chemicals database provided by the IUCLID

(2) Evaluation

- 5,000 substances in excess of 100 tons per year
- Substances produced over 100 tons per year are subject to Level 1 testing(for long-term toxicity tailored testing)
- Substances produced over 1,000 tons per year are subject to Level 2 testing(for longer-term toxicity tailored testing)
- Substances produced below 100 tons: Chemicals with suspected specific hazard(e.g. persistency; bioaccumulation; mutagenicity; high toxicity; and substances with molecular structures giving rise to concern identified by QSAR)

(3) Authorization

- Every High Concern : 1,350 chemicals
 - CMRs(carcinogenic; mutagenic; and toxic to reproduction), POPs(Persistent Organic Pollutants)
 - Below 100 tons: Substances of suspected specific hazard
- Special authorization
 - Substances that can cause negligible amount of hazard
 - Substances whose social economic benefits exceed hazard
 - Substances with measures to minimize the hazard in place
- Exceptions: Substances used with no possibility of exposure, for R&D, and for controllable industrial use

2) Cost and benefit

The cost for evaluating about 30,000 existing chemicals is estimated to be approximately 2.1 billion in EURO dollars for the 11 years until 2012. EU believes that the reward of this new system of evaluation would far exceed the cost, if the new system would prove to contribute to saving numerous human lives or to keeping the incidence of allergies, asthma, or other chronic diseases at a sufficiently lower level. One German environment legislative meeting estimates the annual cost of allergy treatment in Europe to be about €29billion.

- Recognizing non-EU test results and discouraging animal testing
 - Recognizing test results of the international organization(e.g. OECD) and other countries(e.g. U.S.)
 - Minimizing in-vivo animal test for hazard assessment, and giving incentives to companies who conduct in vitro, screen test, spot test,
- Promotion of industrial competitiveness
 - Flexible regulation on R&D substances
 - Simpler registration process for productions/imports below 1 ton per year

3) Institution of central control body

- Establishing a EU central control entity to step up administration and information service
 - Coordinating with member countries' authorities and service upgrade in providing information to the public
 - Carrying out registration, evaluation, authorization, feasibility study, and cost analysis

3. Ramification to the Korean Chemical Industry

In view of the efforts EU states, US, Japan, and other advanced countries have put in the environment-friendly management, and the level of cost these countries have borne for the public health and environment, the impact of EU's new system will not be as significant. However, the impact of conformity to EU's new system for the Korean industry, which is lacking in evaluation ability, facility, and other areas of readiness, will entail serious problems and challenges.

- Increase of evaluating and testing cost
 - Exports of chemical substances or related finished products to EU countries will cost much more in terms of money and time as well, including costs for conducting various tests, to end up deteriorating the industry's international competitiveness.

※ A UK environment & health research center estimates an average US\$250,000 for the basic test on Above 1 ton of substances that are currently on the market (as many as 30,000 or more), and also Assumes it will take 36 years (until 2048) to register all the substances.

- Limits of local test ability

- Data reliability is limited due to lack of testing body, human resources, technology, and facility.

- Trade barrier

- EU exports of non-registered, non-evaluated, non-authorized products will be delayed, and in Meeting EU import regulation on non-registered substances, substituting local raw chemical substances with EU product will become inevitable.

5. Conclusions

The final draft of EU REACH system, as a most advanced system for the advancement of human and environment protection, was produced in 2002 after reviews and revisions reflecting different views from within and outside interested people, particularly in the aspect of cost increase and the resulting weakening of competitiveness. EU is planning legislation of this bill by late 2003 with enforcement scheduled between 2004 and 2014. Safety management of the chemicals is being shaped into a globalized standard in the hands of the advanced countries, while the Korean chemical industry, which falls far behind these countries, will be affected considerably. In this regard, it is strongly urged that the Korean chemical industry, as a national effort, come up with a plan on how to deal with these foreseen challenges.

As a first step, identification of the issues related to our exports to EU, such as product items, kinds of substances together with the quantity and use. Establishment of a coordinating entity for outside data collection and information sharing is also required, in consideration of the lack of information on toxicity or exposure on related or non-registered substances. Accordingly, beginning this year, we are planning to run "Council for the safety management of chemicals", which is comprised of the professionals and experts from industry, academy, government, and research institute, and KPIA, to review the impact of regulations the advanced countries will get tougher as we will face in our future business with these nations, to draw up and present proposals to deal with the challenges, and to provide the interested people with the results through the internet.

The chemical industry established the Korea Responsible Care Council in December 1999, to undertake the "Responsible Care(RC) movement", a voluntary action of preparing and implementing programs for protecting the environment/safety/health covering the whole life cycle of chemicals production, use, and discard. The plan for the future is to help KRCC and "Council for safe control of chemicals" coordinate and expand their services, in hopes that their services will contribute to improving the industry's public image and raising the international competitiveness.

As of now, few companies have been informed of the existence of EU attempt for introducing this new regulatory system. It is therefore urgent to promote the government-industry coordination and information exchange, so that we can raise the awareness about the significance of this new system, through such channels as forum, explanation, publicity, and other proactive measures.

Detail of the White Paper is available in KRCC translation(Serial No: 2003-1).

Korea Kumho Petrochemical Co., Ltd.

1. Corporate environment/safety & RC related guidelines

■ "Environment/safety/health comes first"

Kumho Petrochemical has established an autonomous management system of environment /safety/health that is rooted in the corporate philosophy, 'environment/safety/health comes before business'. Environment management is strictly applied in the whole process beginning from product manufacturing and to waste treatment. The 'three-zero movement' has been in place as part of the corporate campaign for accident prevention, and for providing employees with health and workable environment. The environment/safety/health task force that is run by the Group Headquarter conducts annual consulting and audit, with an aim to make this task a continuing improvement process.

Though introduced just a year ago, RC has become one of the priority management issues thanks to the employees' consensus and commitment to its importance.

■ RC introduction(2002)→ RC step-up & dissemination (2003)→ RC foundation(2004)

Integrating the existing environment/safety/health management system into RC concept, the company encourages participation across the company in a gradual, positive, and continuous manner, to ultimately achieve the goal of protecting the human and the environment.

■ Environment/safety/health policy

As a manufacturer of synthetic rubbers(SBR, BR, NBR, HSR, S-SBR, SBS), SBR Latex, BD, synthetic resins(ABS, PS, EPS, SAN, EP, PPG), rubber chemicals, color developer, dye intermediates, and intermediate perfume, Kumho Petrochemical is aware that minimizing the impact of its business activity to the environment/safety/health is indispensable for people's life and corporate continuity. Therefore, we adopt Responsible Care and carry out following activities to continuously improve environment/safety/health and to efficiently use energy.

1. We put environment/safety/health first in the whole production process from product development to design, production, delivery, use, and to disposal.
2. We set a goal for an effective management of environment/safety/health, and to achieve this goal, accommodate necessary resources and launch a continuous improvement activity.
3. We put in writing all the related laws, regulations, and other relevant requirements and objectives so as to ensure a consistent compliance. Work target will be set for each of the departments in plants so as to pursue zero accident.
4. We will endeavour to develop environment-friendly product and clean production technology, so that we will be able to minimize discharge of pollutants and provide the employees with good working condition.

5. We will provide environment/safety/health education and training across the company, promote awareness through communication and publicity, and strive to be of service to the society through participation in the related activities.,.
6. We will communicate and positively respond to the concerns of all the employees, customers, community, government and other related organizations.

To achieve the goals of this policy and to ensure transparency, all employees will faithfully abide by their responsibilities and authorities.

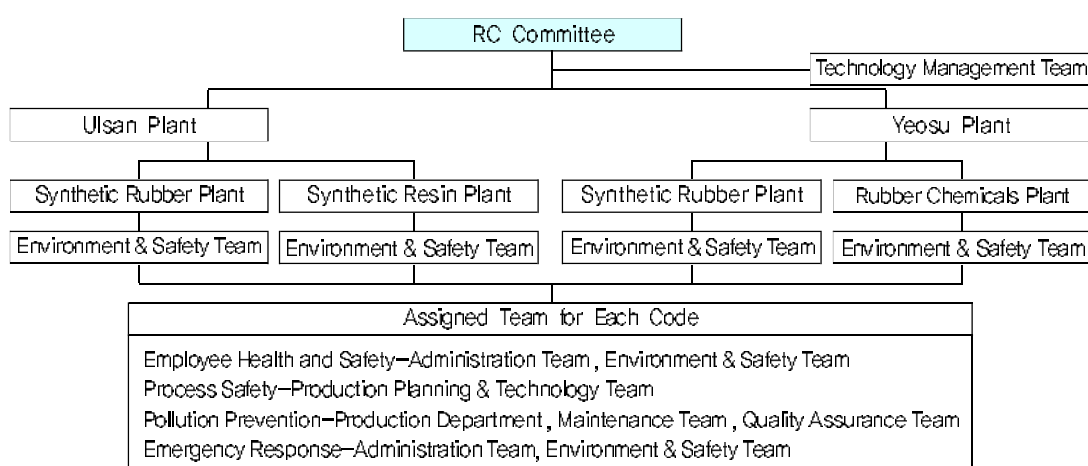
2. Setting up teams for RC implementation and plans

Considering the distance between the 4 operations – Seoul, Ulsan, Yeosu – team organization, implementation, evaluation will be conducted individually, assigning RC committee, which is made of Seoul headquarters' technical control team and environment/safety personnel from each operation, with the general administration of RC implementation.

Personnel for each of the codes will be appointed at each team of the operations, over which the environment/safety team has an overall control. Having relevant personnel for each of the codes will help consensus building about RC and its implementation, such as review of management criteria and self-evaluation.

One each from environment/safety team is assigned for each of the codes so as to allow expertise and convenience, with a plan to pull out once the team stabilizes. Afterwards, code personnel will be appointed in rotation in such a manner that promotes interest and participation across the company.

RC Promoting Organization



3. Points to be stressed for and effect of RC implementation

'Responsible Care introduction'

Except for a handful of the personnel in the related department, RC had been new to most of the employees, and accordingly orientation, training, and publicity for raising awareness was provided. One year was set as the period for foundation, as a prior step toward a full-scale implementation.

■ 'Consensus building'

It was important, for wide spreading RC, that all the employees understand the message RC has to offer, and the relation between RC and the existing environment/safety/health management system. For this purpose, the monthly safety education programs were held to help the employees understand their company is already a RC workplace, and thus RC is not a complicated new tool, but is just an integrated version of the existing concepts like PSM, ISO14001, OHSAS18001. Also offered were an orientation that was combined into RC kick-off meeting where outside lecturer provided introduction to RC, and events were held where all employees were invited to sign to a resolution as an expression of their commitment.

It was necessary to encourage a fresh understanding among the employees that not just the environment/safety/health team, but also all the other departments are expected to have interest in the environment/safety/health issues and to keep informed about these issues, and company network on RC and environment/safety/health was made available to all the employees, so that they get access to the education material, information, and newsletter. Efforts were also made to bring the customers and suppliers together, by providing explanations about the purpose and method of RC.

■ 'RC self-evaluation'

To facilitate self-evaluation, it is the most important to have a thorough knowledge about how the operation is running, which is possible only through checking and updating the existing manual, job procedures, and standards. With the rewritten manual, job procedures, and standards, detail management practices were drawn up, in point form so as to provide a basic framework for the self-evaluation. One of the major performances of RC last year was that the present position of each operation in their level performance of each of the management codes could be identified, and based on this analysis improvements could be offered.

4. Future objective and plan

Following introduction of RC in 2002, 2003 is set as the year for RC upgrade and dissemination as detailed below.

■ RC activation

Installing RC operation team and providing RC education will be more actively proceeded so as to allow RC to take root in all the operations and to help field workers take initiative. To such effect, RC logo adoption is also under consideration.

■ Using self-evaluation as improvement activity indicator

By comparing results of the compliance with the management codes among different operations, data for improvement proposal will be produced. Best performing operation will serve as a reference or benchmark for future improvement efforts.

■ Improvement of self-evaluation

Conducted for the first time, the evaluation lacked objectivity, especially in terms of evaluation criteria and person who conducted the evaluation. To ensure a more objective and thorough evaluation, which will provide data for status review and future improvements, an overall rewriting will be needed.

■ Integration of the existing system with RC

The existing environment/safety/health system and other relevant activities will be integrated into RC.