



Future for you

2003 RC Report

Environmental Report

LG Chem delivers what nature wants and what customers want.





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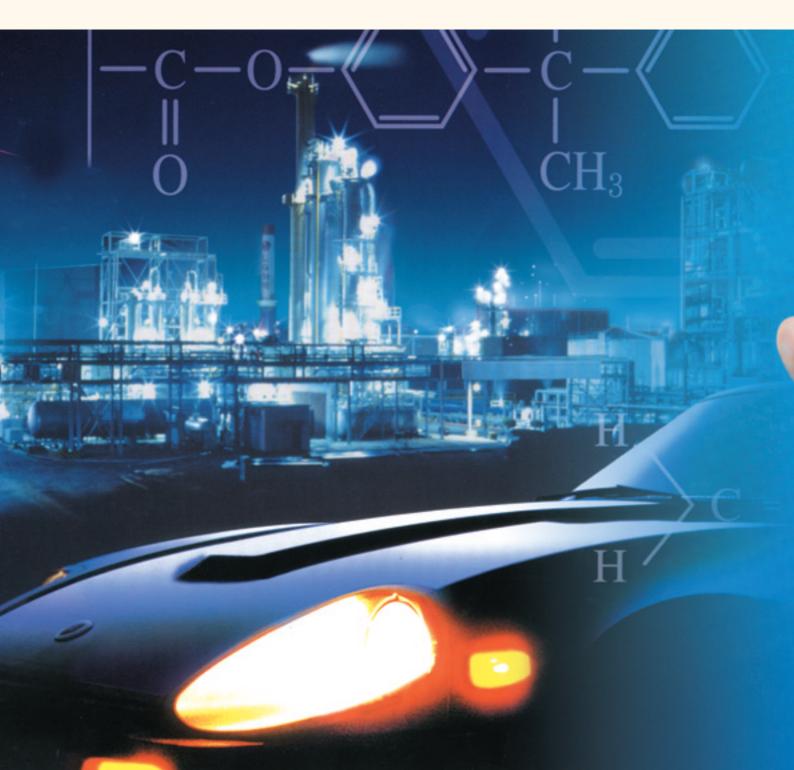
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Global Chemical Company, LG Chem

Since its establishment in 1947, LG Chem has been the largest chemical company in Korea. Through continuous innovation and R&D efforts, it has led the Korean chemical industry for the past half century. LG Chem's business is comprised of four major areas : petrochemicals, performance polymers, industrial materials, and information & electronic materials.

It conducts global management through its manufacturing affiliates, research centers, and marketing branches in major countries around the world.

LG Chem's focus lies in developing strategic core future businesses, i.e.

information and electronic materials along with high performance industrial materials, and high value-added petrochemical products. Our vision is to recreate LG Chem as a globally recognized chemical company, with solid R&D and product development capabilities.



VISION & CORE VALUES

Vision

With the spin-off that took place in 2001, LG Chem proclaimed a new vision to establish its future and core values. Our future vision guides LG Chem's ultimate direction. Core values provide codes of actions that all of the employees should follow to achieve our vision.

Future Vision

A global company exceeding customers' expectations with advanced technology, new solutions, and trusting management.

With continuous innovation, we will develop and provide advanced technology and materials ahead of other competitive companies. Moreover, we will take a step further and create new values that will provide solutions for individual customer's needs.

Through open management, we will listen to our customers, investors, and employees, and build a win-win partnership based on mutual trust. In addition, we will respect our employees and provide an exciting place for them to grow and thrive.

We pursue a world-class method in developing business, training manpower, and conducting our business. For future strategic businesses, we will strive to be a leader in major markets of the world and try to be a preferred company for domestic and foreign investors by yielding high investment returns without being affected by economic fluctuations.

Global Leader

Innovation

A Leader of innovative technology

Solution Provider A provider of both products and seamless service

 Increased performance and high value-added business

• Globalization of strategic business

Trust in Management

- Customers
 Investors
- Employees
 Society

Core Value

Customer Value First

We deliver value by placing the customer's needs first and by exceeding their expectations.

Mutual Trust

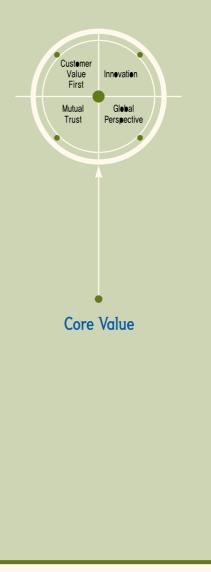
We always fulfill our commitment to our customers, investors and employees and abide by our integrity and ethical standards, under any circumstances.

Innovation

We constantly challenge the limitations of our products and technology with innovative ideas and actions.

· Global Perspective

We think and act from a global perspective and develop business on a global dimension.







CEO's Message

The chemical industry is one of the most important industries, which plays a key role in the modern society by meeting basic needs for food, housing, and clothing. Moreover, it provides the basic technology for prospering businesses including advanced IT, BT, and NT.

Nevertheless, it is regrettable that the chemical industry is considered more as the main offender of environmental contamination than as a contributor to the advancement of human civilization. This perception may be based on the fact that the chemical industry relates to various environmental problems and potential dangers at all stages, ranging from the process of collecting raw materials to manufacturing, distributing, using, and wasting the products. However, I am confident that we can improve such negative awareness of the chemical industry through voluntary efforts.

Starting from 2001, LG Chem adopted 'Responsible Care (RC)', which is a voluntary program of improving the environment, safety and health condition of the chemical industry. 'Responsible Care' has now become LG Chem's corporate culture placing high priority on nature and human beings when LG Chem conducts business. To promote this program, LG Chem is revising the existing guidelines for the management system of environment, safety and health to improve our safe production operations.

In particular, to reduce the fundamental problems of environmental contamination, LG Chem is trying to minimize the output of contaminants by setting up mid to long-term goals under the principle of 'Pollutant Emission Zero'. Moreover, LG Chem has established a 5-year plan to save energy and is conducting the 'Energy Impact Free' campaign across the company.

I am delighted to announce such efforts and accomplishments LG Chem has achieved through the '2003 RC Report'. I believe that this RC Report will provide an important foundation for LG Chem's future developments by disclosing the results of our past activities with transparency and by receiving evaluations from others.

LG Chem will continue to operate its business to promote human prosperity and happiness in harmony with the environment. In addition, centering on the 'Responsible Care' Program, LG Chem will conduct an environment-friendly business through constant improvements of environment, safety, and health, and endeavor to achieve 'sustainable development of society'.

Thank you very much.

June 2003 LG Chem President & CEO No, Ki-Ho

files hall





Message from the Chairman of RC Committee

As publishing '2003 RC Report'

The 21st century is the era of knowledge and environmental management. This means that developing solutions for environment, safety, and health is the determining factor in enhancing business competitiveness. Especially, for the chemical industry, it is time to improve the negative problems endangering the environment, safety, and health to positive factors.

As a leading chemical company in Korea, LG Chem has developed management systems for environment, safety, and health, such as the ISO 14001, KOSHA 2000 and PSM. Moreover, we have made substantial facilities investment for improving the environment, safety, and health. The 'Responsible Care' program, which LG Chem has adopted and promoted since 2001, reflects the will of all our employees towards the betterment of the environment safety health and has become the foundation for practical improvements along with the existing system.

Based on our efforts to improve the environment, safety, and health as well as our achievements, we have published the '2003 RC Report'. This is a comprehensive report, which contains our efforts and achievements of the 'Responsible Care' activities based on the environmental reporting guidelines of the Korean Ministry of Environment. Although some of our business divisions have already been publishing independent environmental reports, this is the first time publishing RC report for LG Chem on an enterprise level. By doing so, we would like to share LG Chem's efforts and achievements in Responsible Care with all who have interest.

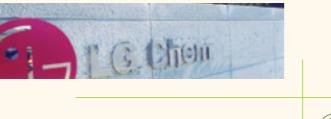
'2003 RC Report' will be LG Chem's first step towards sustainable development. In addition, we will further it to a 'Sustainability Report', which will include our economic and social accomplishments. We would like to extend our appreciation for your on-going interest in LG Chem and promise to strive towards improving the environment, safety, and health.

Thank you.

June 2003 LG Chem Executive Vice President Chairman of RC Committee

Lim, Sung Dam

Sungdam lim





Business Overview



Business Performance		Unit : million won
Item	2001	2002
Sales	3,600,050	5,433,060
Operating Income	267,259	516,386
Ordinary Income	187,604	479,055
Net Income	130,176	345,277

* The performance of 2001 is based on the period between April 1, 2001 and December 31, 2001.

Present Employees As of December 31, 2002

Category	Manufacturing Pesitien	Office Pesitien	Tetal
Male	4,377	3,203	7,580
Female	108	635	743
Total	4,485	3,838	8,323



Through the day LG Chem helps keep the world greener. Our nature-substituting products help conserve valuable natural resources.

Our environmental commitment preserves green forests and clear streams for our children. We lead the effort for a cleaner environment by developing environment-friendly processes, natural wood substitutes and pollution-free raw materials.





Through the day LG Chem drives you to new exciting worlds.

From automobile plastics to innovative materials, We make the elements of your world,

Our technology is what unfolds the inspiring landscapes over your dashboard, From basic petrochemicals to state-of-the-art core materials, LG Chem adds inspiration to your world,









Through the day LG Chem surrounds you to bring the little smiles that fill your home with happiness.

From various interior finishing materials to home interior consulting services we bring comfort to your home.

A beautiful home is a home filled with happiness and laughter. From flooring to windows and wallpaper, LG Chem's high-end interior materials and total consulting service make every family moment complete.





Through the day Whispers made the LG Chem's way Connects hearts like no other way.

From cellular phones to notebooks. LG Chem defines the core of the unsurpassed information technologies.

Miles apart, yet closer than ever, experience the ultimate communication in the digital world created by LG Chem. LG Chem delivers the materials of the future for cellular phones, notebooks, and digital TV s, bringing you closer to living your dreams.



Production Performance Unit : million won

Category	2001	2002
Petrechemicals	1,014,502	1,446,292
Performance Polymers	934,117	1,355,968
Industrial Materials	1,481,528	2,181,976
Infermation and Electronic Materials	169,903	448,824
Total	3,600,050	5,433,060

* The performance of 2001 is based on the period between April 1, 2001 and December 31, 2001.







Global Network



Domestic Plants

Name Location		
Head Office	LG Twin Towers 20, Yeoido-dong, Yeoungdeungpo-gu, Seoul	
Yeesu Plant	70-1, Hwachi-dong, Yeosu-si, Jeollanam-do	
Cheongju Plant	150, Songjeong-dong, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do	
Ulsan Plant	388, Mangyang-ri, Onyang-eup, Ulju-gun, Ulsan	
Onsan Plant	580, Hwasan-ri, Onsan-eup, Ulju-gun, Ulsan	
lksan Plant	599, Yongje-dong, Iksan-si, Jeollabuk-do	
Naju Plant	1, Songwol-dong, Naju-si, Jeollanam-do	
Daesan Plant	679-13, Daejuk-ri, Daesan-eup, Seosan-si, Chungcheongnam-do	
Research Park	104-1, Munji-dong, Yuseong-gu, Daejeon	

Overseas Affiliates

Firm Name	Location
Tianjin LG Dagu Chemical Ce., Ltd.	Tianjin, China
Tianjin LG New Building Materials Co., Ltd.	Tianjin, China
Ningbe LG Yengxing Chemical Ce., Ltd.	Ningbo, China
Tianjin LG Windew & Deer Ltd.	Tianjin, China
LG Chemical (Guangzheu) Engineering Plastics Ce., Ltd.	Guangzhou, China
P.T. Sinar LG Plastics Industry	Barat, Indonesia
LG Pelymers India Pvt. Ltd.	Visakhapatnam, India
LG VINA Chemical Co.	Ho Chi Minh, Vietnam
LG Chemical Hong Kong Ltd.(LGHK)	Hong Kong, China
LG Chemical America Inc.(LGCAI)	New Jersey, USA
LG Chem Europe Sarl	Geneva, Swisse
LG Chem Trading Co., Ltd.	Shanghai, China
LG Solid Source LLC	Phoenix, AZ, USA







Yeosu Plant

- Location : 70-1, Hwachi-dong, Yeosu-si, Jeonnam
- and others
- Area : 991,735 m² Major Products :
- VCM, PA, SM, Acrylates, PVC, ABS, EDC, PS, SAN, LDPE, POM, Octanol



Iksan Plant

- Location : 599, Yongje-dong, Iksan-si, Jeonbuk
- Area : 94,636 m² Major Products :
- ABS Compound, Engineering Plastics, etc.



Cheongju Plant

- Location :
- 150, Songjeong-dong, Heungdeok-gu, Cheongju-si, Chungbuk
- Area : 350,781 m²
- Major Products :
- Building Materials
- Living Materials
- Information Electronic Materials



Naju Plant

- Location : 1, Songwol-dong, Naju-si, Jeonnam
- Area : 562,793 m²

Daesan Plant

679-13, Daejuk-ri,

Daesan-eup, Seosan-si,

Location :

Chungnam • Area : 192,109 m²

VCM, PVC

Major Products :

 Major Products : Octanol, Butanol, DOP, Acrylic Acid





Ulsan Plant

- Location :
- 388, Mangyang-ri, Onyang-eup, Ulju-gun, Ulsan
- Area : 413,785 m²
- Major Products :
- Building Materials - Living Materials
- Functional Materials

580, Hwasan-ri, Onsan-eup,

Fluorescent substance,

Ulju-gun, Ulsan

UV-Stabilizer

- DOP





Research Park

- Location : 104-1, Munji-dong,
- Yuseong-gu, Daejeon
- Area : 85,530 m²
- Major Business :
- Research on new materials





LG Chem, the company that grows in harmony with nature.



LG Chem considers environmental preservation its main management task. By constantly pursuing harmony between business activities and the environment, LG Chem is practicing environmental management for nature and human beings.

- Environmental Policy
- Environmental Goals
- Environmental Management System
- Responsible Care
- Emergency Response System





Environmental Policy

Environmental Philosophy

LG Chem considers environmental preservation as its main management task. We base our management concept on 'Value Creation for Customers' and 'Management of Human Respect.' We are practicing environmental management for nature and human beings in harmony with our business activities and the environment.

With consciousness and vision as a global member, LG will try to maintain a free economic system, develop local economy, and preserve the environment.

(LG's Management Statement Article 1, Section 4)

LG constantly makes effort to prevent pollution and to preserve clean environment.

(LG's Code of Ethics Article 6, Section 4)

Environmental Policy

LG Chem practices environmental management through environmental declaration. The environmental policy of LG Chem is composed of three areas – environmental practice, mind renovation, and trust building.

We want to be perceived as a trustworthy company, which respects environment and practice environmental management. To achieve this goal, we considers environmental preservation as our essential management assignment and constantly pursues the harmony between our business operation and the environment.

- We observe both local and national environmental laws and regulations where we do our business activities.
- We set our own environmental goals and try to improve the environment.
- We assess the environmental impact of our products, starting from the design of products to their disposal, and we try to develop environmentally friendly technology.
- All of our employees practice environmental preservation activities in their daily activities as members of the local and global community.
- The results of our environmental activities are the responsibility of all our employees, and should be open to the general public.



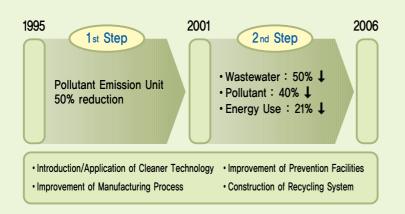




Environmental Goals

Environmental Goals

LG Chem has constructed an environment management system according to the environmental policy and has set an environmental goal of pollutant emission 'Zero'. We have established a progressive mid to long-term master plan for environmental management.

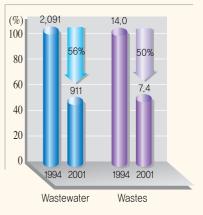


1st Step We set a goal of 50% reduction of unit discharge of the wastewater, air pollution, and industrial waste for the period of 1995–2001. Compared to 1994, we have accomplished 56% reduction of unit discharge of wastewater and 50% reduction of wastes, exceeding our goal.

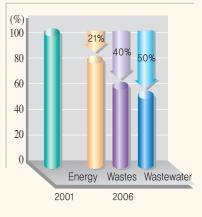
2nd Step Until 2006, we set our goal of 50% reduction of unit discharge of wastewater, 40% reduction of unit discharge of wastes, and 21% reduction of energy consumption. To achieve this goal, we take several actions such as raw material replacement, process improvement, and development of waste processing technology. Also, we regularly evaluate both direct and indirect factors influencing the environment, including each department's activities, products, and operation/service. For important factors, we reflect them when we revise our goals to improve environment. In addition, we assess our performance according to each term's plan and check whether we have achieved our goals. When we fail to achieve them, we investigate the cause and take appropriate actions to solve problems.



1st Step Results (1995-2001)



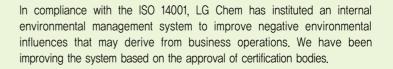
2nd Step (2002-2006)



Environmental Management System



Environmental Management System



We set up detailed targets to carry out our environmental policies and goals and train our employees to fulfill their responsibility. We regularly evaluate the execution of environmental management system through both internal audits and external investigations and report the results to the top manager of each business site.

Internal Audit

An internal audit is conducted twice a year by internal auditors at each business site. The results of audit are reported to the top manager, and the responsible department takes immediate action to correct problems as soon as possible.

Surveillance / Renewal Audit

Each business site is inspected once a year by the Certification Bodies. Through this post inspection, we seek to establish the reliability and effectiveness of our environmental management system.

Inspection by Head Office

Our head office has formed an inspection team that comprises responsible personnel from each site and outside specialists to analyze the situation of environmental management of all the business sites once a year. The areas of inspection include the observance of environment/safety laws and regulations, the optimum maintenance of environment & safety related equipments, and the potential risk. After inspection, appropriate solutions and corrective actions are suggested.

Self Evaluation of RC

All of the business sites are divided into 24 units, and each unit is evaluated by 52 guidelines and four codes of RC. The results of evaluation are reflected on the goals of the following year. In addition, each business site voluntarily conducts environmental diagnosis and monitors environmental management activities weekly or monthly, according to the characteristics of each site. We try to run autonomous environmental management.

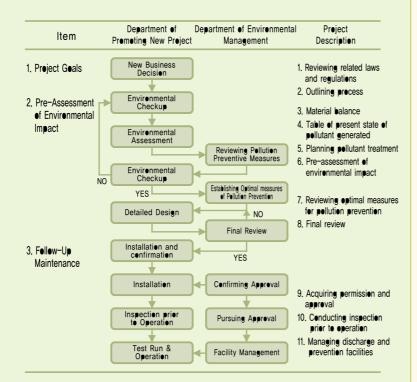


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Pre-Assessment of Environmental Impact

To minimize negative impact on the environment, we conduct an evaluation of our business when we start new business, expand existing business, or change its operation. We apply the regulations of the permission organization and the safety standards of facilities.



Development of Environmental Management Skills

We have introduced and applied advanced environmental management skills to improve our environmental management system and to respond actively to interested parties. We have developed and modified realistic guidelines and participated in several events to secure environmental competitiveness. We were involved in the following activities; the demonstrative projects on environmental reports sponsored by the Ministry of Environment; the demonstrative projects of environmental accounting; the demonstrative projects of developing environmental performance indicators; and the projects of developing objective measurement of environmental management performance.





Chairman of the Korea RC Council No, Ki-Ho (CEO of LG Chem)

Responsible Care

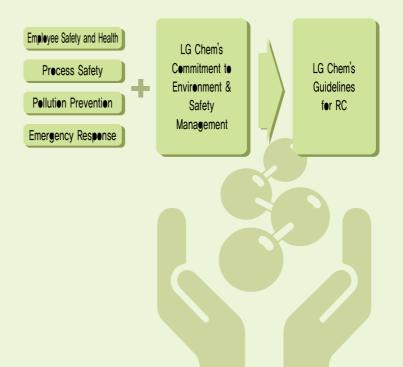
'Responsible Care(RC)' is spontaneous activities of the chemical industry to fulfill its social responsibility with efforts to improve the environment, safety and health of the people. It is carried out through the whole process of chemical products beginning with their development, manufacture, sales, distribution, use and finally waste treatment and disposal.

Announcement of Practical Will

LG Chem has been playing a crucial role in the Korean Responsible Care Council (KRCC) to introduce and implement RC. Internally, we have manifested our intention of practicing RC to all of our employees at monthly meetings.

Development of Practical Guidelines

We analyzed and modified our environment & safety management regulations according to the management practices of RC, and have developed a practical guidelines by adding LG Chem's commitment to environment & safety management.





RC Committee



RC Committee

We have organized the 'RC Committee' which consists of members from each plant, each business unit, and staff. The RC committee is playing a central role in drawing up the policy of RC and sharing information on the environment • safety • health issues.

Self Evaluation

We shape executable items that are appropriate for each business site based on the 4 codes of RC and evaluate the level of implementation by the evaluation standards. In 2002, we have conducted the first self-evaluation, and the result of evaluation showed that we were at the stage of Implementing Action Plan (IA).

RC Code Management Practice		Implementation Item
Employee Safety & Health	13 items including safety & health policy and procurement of resources	Detailed executable items appropriate for
Process Safety	17 items including Manager's participation and	business site
Pollution Prevention	14 items including Company's environmental policy	
Emergency Response	8 items including risk evaluation	

Use of Logo

By using the RC logo for business PR and business cards, we remind our employees of environment & safety, and proclaim our intention to practice environment & safety management both internally and externally. Also, we contribute to improving the image of the chemical industry.





Environmental Management System



Emergency Reservoir

Emergency Response System

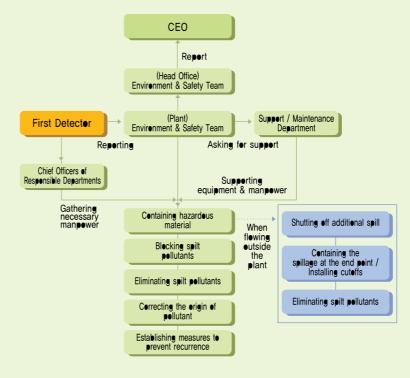
Accident Prevention

To prevent environmental accidents, the environment & safety team and the production team analyze potential risk and conduct regular inspection by assigning a person in chage of each facility. Also, the environment & safety team patrols facilities 24 hours a day to prevent accidental spills of pollutants.

Emergency Response

To take immediate measures when an accident occurs, we conduct simulations of various types of accidents and train each team once a month against emergency situations. After training, we analyze the results and problems, modify the emergency response scenarios, and reflect them on the next training to prepare for real emergencies.

Emergency Response to Spill Accidents





Early warning system against water contamination

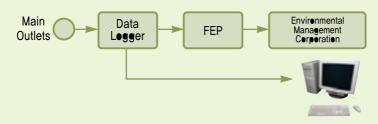


Training for spill prevention



TMS Operation

We have installed a telemetering system (TMS) at the outlet of our major air pollution prevention facilities and wastewater treatment facilities, to measure air pollutants and water contaminants, and manage prevention facilities optimally. The early alarm system enables immediate responses by monitoring the pollution level of waste materials. The measured data at major outlets are sent to major government and public offices through the TMS controlling center.



Emergency Response System for Transportation

In consideration of the characteristics of chemicals and poor traffic conditions in Korea, the emergency response to accidents while transporting chemicals can be as important as that to the accidents at business sites. LG Chem is operating the following accident prevention and emergency response systems for transportation stages. Furthermore, we open the information to the public on the KRCC webpage (www.krcc.or.kr) to prevent similar accidents by other chemical companies.

Accident Prevention

- Constructing and applying the emergency response reports by product (Material information, Information on accident response, Emergency contact network)
- · Clarifying transporter's qualifications, and
- offering environment & safety education courses
- Safety inspections before shipping products (Observance of safety regulations of shipping and providing of information on emergency response)

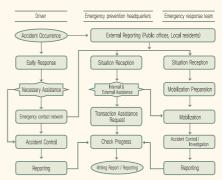
Emergency Response

- Operating an emergency response committee when an accident occurs (Reporting to emergency response headquarters, Mobilizing an emergency response team)
- Securing the emergency equipments and the list of emergency control companies in case of transportation accidents
- Publishing a booklet on drivers' safety guidelines for emergency and requiring the drivers to possess it while transporting chemical products



Environmental Management System

Emergency response to transportation accidents





Thinking of future environment, Acting company- LG Chem

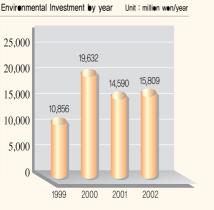




For sustainable development of society, LG Chem is doing its best in delivering environmentally friendly management.

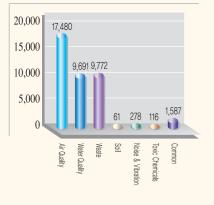
- Environmental Cost
- LCA (Life-Cycle Assessment)
- Air Quality Management
- Water Quality Management
- Waste Management
- Energy Management
- Toxic Chemicals Management
- Soil Pollution Management
- Safety & Health
- Certifications
- Awards







Environmental cost (2002) Unit : million won/vear

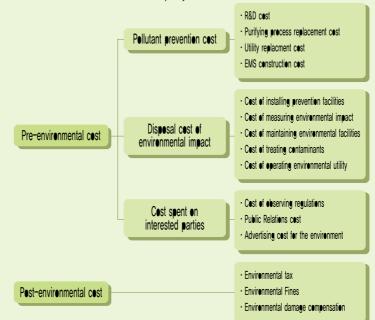


Environmental Cost

LG Chem specifies, estimates, and distributes the environmental cost, to provide information when making management decisions. We have also introduced an environmental accounting system which makes the results public to the responsible people in the company. By totaling up the environmental cost, we use it to boost eco-efficiency, as well as to raise the efficiency of environmental analysis and investments. It is also used accurately decide product cost and to boost our image as an environmentally friendly company.

Classification of Environmental Cost

LG Chem's environmental cost is classified into pre and post environmental cost. Pre-environmental cost is the funds spent to prevent environmental impacts, and post-environmental cost is the cost spent after the environmental damage, such as recovery costs, damage compensations, and other financial losses of the company.



According to the estimated result of the environmental cost for 2002, the pre-environmental cost was 34.5 billion won, and the post-environmental cost was 4.5 billion won. The total environmental cost was 39 billion won. The breakdown of the pre-environmental cost was : 4.9 billion won for the cost of reducing pollutants, 29.1 billion won for the cost of reducing environmental impacts, and 500 million won for the cost spent on the interested parties. The post-environmental cost related to pollutants and additional environmental expenditures was 4.5 billion won.



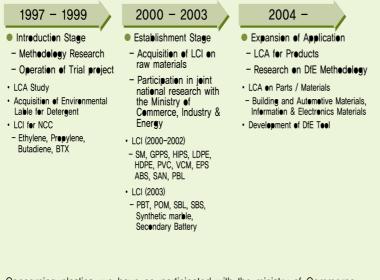
LCA (Life-Cycle Assessment)

What is Life-Cycle Assessment (LCA)?

We investigate all the usage of raw materials, the amounts of energy used, and the discharged materials into air, water, and soil during the entire process of products-from acquisition of raw materials to final disposal. LCA is a scientific technique to evaluate the impact on the environment and to seek solutions for improvement.

To reduce the effects on the environment at business sites, we try to achieve our goal of Pollutant Emission'Zero'. From 1997, we have also introduced the LCA to evaluate and reduce potential environmental impacts of our products.

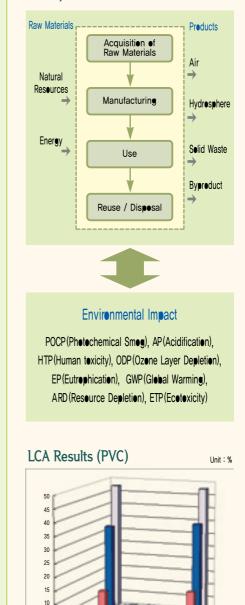
LCA Master Plan



Concerning plastics, we have co-participated with the ministry of Commerce, Industry and Energy in the international standardization database research project since 2000. By securing the Life Cycle Inventory(LCI) data of 11 raw materials such as PVC, LG Chem can now evaluate the environmental impacts of the products manufactured from these raw materials.

Also, from 2004, we will execute LCA on the secondary processed products, based on the existing LCI data, and use the results as basic data for designing environmentally friendly products, for Responsible Care activities and for the Environmental Declarations for Products (EDP). Eventually, we will be able to satisfy the increasing demand of customers, who claims that the environmental information should become public.

Life Cycle of Products







Air Quality Management

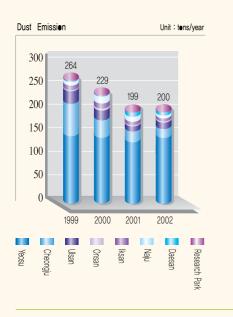
LG Chem tries to minimize environmental impacts by conducting preenvironmental evaluations of newly-constructed processes to reduce air pollutants. Also, we regularly inspect pollution prevention facilities to optimize their operations and run measurements and analysis of air pollutants.

Minimizing Environmental Impact

When we construct or expand new production processes or change an existing major production process, we check environment & safety condition from the designing stage to minimize the environmental impact from air pollution emission. Before operating facilities, we examine the observance of regulations for environmental & safety and resolve the problems of facilities to remove potential dangerous factors.

Optimal Operation of Prevention Facilities

For optimal operation of prevention facilities, we regularly inspect each facility according to the inspection standards. When we discover any problems, we immediately correct them to optimize the operation of facilities.



Measurement & Analysis

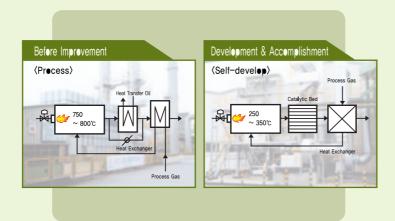
The emission of air pollutants is controlled by the internal criteria that allows below 50% of legal standard. For optimal management, we operate a department of environmental analysis to analyze water contaminants, air pollutants, Volatile Organic Compounds (VOC), and offensive odor substance around the plants. We try to prevent the problems of environmental contamination by strengthening the functions of internal inspection and securing its reliability.

We also install TMS at major prevention facilities, and we regularly measure the amount of air pollutants emitted into the air. Through the TMS control center of the Environmental Management Corporation, we regularly send measured data from major outlets to relevant public offices.

The emission of air pollutants is being reduced by using clean fuel and by improving the production process. We install high-tech prevention facilities and improve the processing efficiency of prevention facilities to reduce the emission of air pollutants, such as dust (solid particles), SOx, NOx, and CO.



Cheongju Plant replaced high temperature incinerators, which treating exhaust gas from production process, with the catalytic thermal oxidation facilities developed by the plant. As a result, the manufacturing speed was improved by 20% and energy use reduced by 60%.

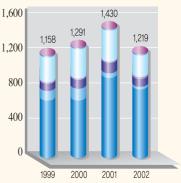


Yeosu Plant installed leakage prevention equipment (e.g., VOC or offensive odor) for every facility, including the manufacturing process, storage, and wastewater treatment facilities, It has maintained the equipment by inspecting it regularly to minimize the amount of emission. Since 1997, this plant has invested a total of 23 billion won to reduce offensive odor.

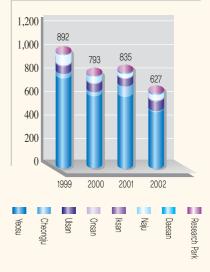
Naju Plant installed a wet absorbing system at Sulfur Recovery Unit (SRU) to reduce the offensive odor and the emission of air pollutants. It has set up a Regenerative Thermal Oxidizer (RTO) to process VOC materials produced by DOP manufacturing process and the wastewater treatment facility. Also, it has established a deodorizing facility to remove offensive odor substances emitted from the upper tank lorry at packing products or from storage facilities. Since 1996, this plant has invested a total of 6 billion won to improve the condition.

Ulsan and Iksan Plants replaced existing prevention facilities with RTO to remove VOC and offensive odor substance and increased processing efficiency from 80% to over 97%. The plant could shut off 90 tons of VOC and offensive substances annually.





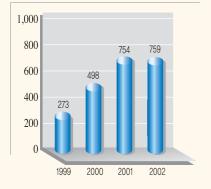
CO Emissien



Unit : tens/year



Amount of Reused Wastewater Unit : 1000 tons/year



6,000 5,000 4,768 4,518 5,010 4,000 3,000

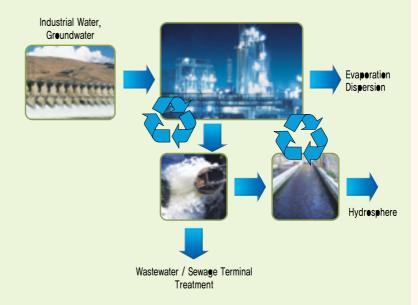
Unit: 1000 tens/year

Amount of Wastewater Discharge



Water Quality Management

In 2002, LG Chem has used 18 million tons of water to run factories - 97.2% from industrial water and 2.8% from groundwater. The water was mainly used for manufacturing and cooling purposes, and part of it was used for daily needs and fire hydrants.



Since 2001, the total amount of water usage has increased due to expanding the information & electronic materials business and merging Daesan Plant, but we are constantly trying to reduce the discharge of wastewater through processing improvement and maximizing the rate of recycling water. We have set up concrete goals and action plans to reduce the amount of final discharge of wastewater by each source of origin, analyze and evaluate the degree of performance and achievement, and give feedback based on the analyses and reflect the results on the personnel evaluation.

Cheongju Plant has introduced the 6 Sigma technique, to scientifically analyze and improve the wastewater condition at the processing of optical materials. It reuses all of the RO concentrated water that had been discharged as wastewater. This has enabled LG Chem to reduce wastewarter by 53% and also reduce both the investment in the facilities as well as the wastewarter treatment expenses.



Yeosu Plant has invested 1.5 billion won to construct a wastewater treatment facility by ozone to recycle wastewater produced by PVC manufacturing process. It is reusing 1,200m³ of wastewater everyday as cooling water, replenishing water, or processing water. It is planning to increase the rate of recycling wastewater by expanding its usage for other purposes.

Iksan Plant has replaced its Wet Process Vacuum Pump with a Dry Process Vacuum Pump to reduce wastewater produced by the extruding process and has installed Olifice in the Wet Process Vacuum Pump, which has reduced about 9,000 tons of wastewater annually.

Onsan Plant has introduced the High-performance Compact Reactor(HCR) process, a high-efficient wastewater processing method, which uses microbes. It has reduced processing expenses by 500 million won annually.

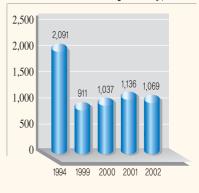
Naju Plant has installed the Wet Oxidation Facility (WOF) to treat cyanic wastewater which is produced by the gas processing. It has reduced treatment expenses drastically by acquiring its own treatment technology, treating Octanol EPA wastewater. In addition, in 2002, it installed a Nitrogen treatment facility, and has discharged wastewater after treatment within 10% of the legal criteria.

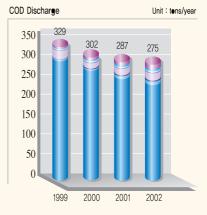


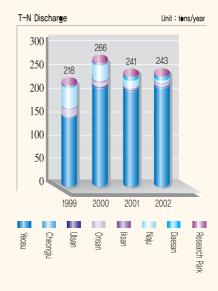
We plan to reduce the amount of wastewater constantly through the replacement of raw materials, improvement of facilities, and development of treatment technology for all business sites. At our facilities, we are discharging water that is treated within the permissible inflow criteria. For other areas, we discharge water that is treated 50% below dischargeable criteria set by the internal management standards.

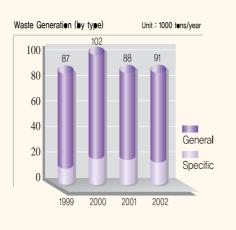
The amount of discharged water pollutants has increased due to the enhanced 5% annual production and the merging of Daesan Plant in 2001. However, through the processing improvement at the source of origin, the amount of discharged pollutants is decreasing.

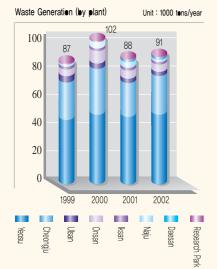
Basic Unit of Wastewater Discharge Unit : kg/product-ton

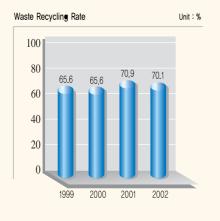










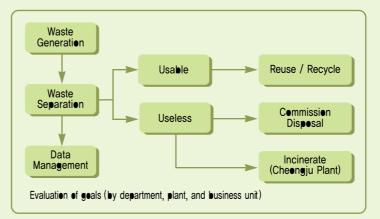


Waste Management

To minimize the amount of waste, we place responsibility of waste generation on the departments in charge, and have them establish their annual goals and plans to reduce wastes.

In addition, to achieve visible results, we regularly analyze and evaluate whether they have reached their goals and reflect the analyses on their performance ratings.

Flowchart of Waste Management



Most of the waste produced by LG Chem is sludge from the disposal process of wastewater and waste plastics from the manufacturing process. According to the waste discharge in 2002, about 81% (73,842 tons) was from general waste, and 19% (17,373 tons) was from specific waste such as waste oil; 70% of the waste was reused.

Yeosu plant developed a drying and grinding technology in cooperation with a PVC processing company to recycle sludge from wastewater produced in the process of producing PVC and has reused it for producing PVC pipe in amount of 2,400 tons yearly.

Cheongju plant reused bottom ash collected from the waste incinerating facilities for brick making material in amount of 2,000 tons yearly.

Ulsan plant conducted research with a recycling company to reuse scraps of high glossy film for two years and reused it for making PVC pipe in amount of 400 tons yearly.



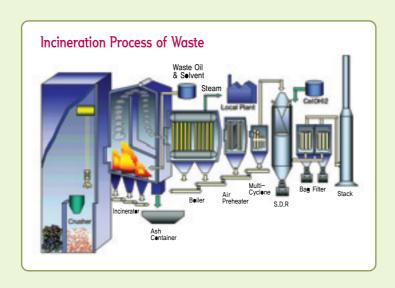


Waste generating factors have increased due to increased production rates, the beginning of the information & electronic materials business, and the acquisition of the Daesan plant. However, the amount of waste is being reduced by continuous efforts, generated waste is collected separately to increase the recycling rate. 21,000 tons of non-recyclable waste are incinerated and disposed by waste disposal companies. In addition, we inspect and manage the processing capacity and operating condition of the assigned companies regularly according to inspection standards.

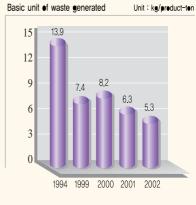
The basic unit of waste generated from one ton of products has increased temporarily in 2000 due to the beginning of the information & electronic materials business, but it has decreased by 61.8%, from 13.9kg/product-ton in 1999 to 5.3kg/product-ton in 2002. In the long run, we plan to reduce the waste by 40% in 2006, compared to that of 2001.

In addition, Cheongju plant has been operating waste incinerating facilities (1.3 ton/H) since 1992, and it has been using steam derived from the recycling heat for production process. This has an economical effect of 170 million won annually.

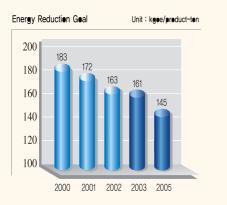
To dispose of waste materials from the incinerating process, we are operating multi-cyclone, SDR, and bag filter to minimize the following major air pollutants emitted : 15mg/Nm2 (legal standard=100), SOx 30ppm (legal standard=300), NOx 60ppm (legal standard=200), Dioxin 0.6ng-TEQ/Nm2 (legal standard=40).











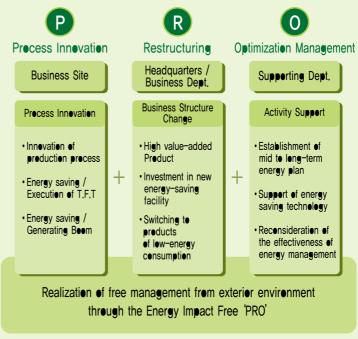
Energy Management

LG Chem put high priority on energy saving not to be affected by any circumstance either foreign or domestic.

To improve energy saving, we have set up a 5-year energy saving plan to reduce by 21% of basic unit of energy use until 2005, compared to 2000. We have started an Energy Impact Free Campaign (E.I.F. PRO) to achieve this goal by innovating processes at business sites, by changing energy-saving business structures, and by supporting effective business activities.

Category	Shert-term Strategy	Mid-term Strategy	Leng-term Strategy
Year	2000 - 2004	- 2005	2006 -
Driving Strategy	Greenhouse Gas Reducing Activity / Acceleration & Constructing foundation	CO2 Registry Construction	Change te Greenheuse Credit System

E.I.F. 'PRO' Campaign









Basic Unit of Energy Use

With new technology of energy saving and benchmarking, we are promoting innovation of manufacturing process at each business site in response to top managers' constant interest in energy saving. Through the activities of TF team, we are organizing a campaign called 'one business site, one catch phrase' for a constant energy saving mindset. As a result, basic unit of energy use is decreasing annually.

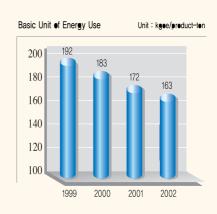
Value-Added Energy

Through constant research and development in manufacturing products, we are promoting a structural change for low-energy consumption products as a major business strategy. We try to maximize a value-added energy use by constructing an environmentally friendly production line.

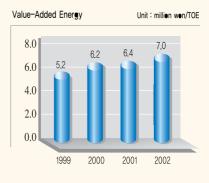
Basic Unit of CO₂ Emission

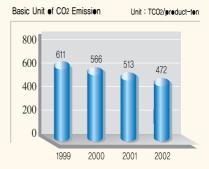
To actively respond to the Climate Change Convention, we investigate the emission of CO₂ by business site and analyze potential reduction of emission through the diagnosis of energy specialists. We continuously and systematically promote improvement activities and participate in the national registry project. In addition, we have introduced an independent program to train experts at the Climate Change Convention.

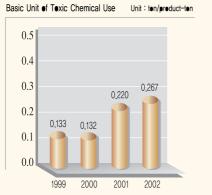




Environmental Management Performance





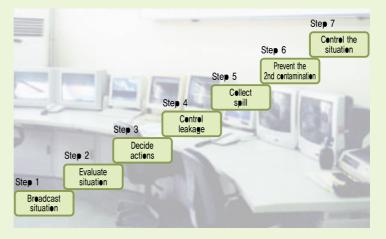


* The quantity has increased as toxic chemicals such as EDC are added from 2001.

Toxic Chemicals Management

We strictly manage the toxic chemicals from warehousing to disposal. For handling and manufacturing toxic chemicals, we have prepared information on their safe handling, and we use it for training handlers. In addition, we install detectors or interceptor at storage facilities to prevent any leakage accidents and hold emergency training against the leakage of toxic chemicals.

In the case of efflux of toxic chemicals, we use the 7-step flowchart of emergency response:



The amount of toxic chemicals used is decreasing by the substitution of raw materials and the development of treating method. After the chemicals such as EDC were designated as toxic additionally in 2001, the basic unit of the use of toxic chemicals has increased, but we are reducing the amount of discharge through Toxics Release Inventory (TRI).

Cheongju and Ulsan Plants have substituted toluene, O-Cresol, and MEK with less hazardous water soluble ink such as Methyl Cyclo Pentane and Saccarouse in the process of plastic products. In addition, they replaced Cd Compound and Pb stabilizer with Ba Compound and Ca-Zn stabilizer to reduce the use of toxic chemicals.

LG Chem manufactures rechargeable batteries without any heavy metal such as cadmium and mercury. We produce lithium-ion batteries and polymer batteries that can be charged over 500 times in a normal condition and that are free of leakage and ignition.







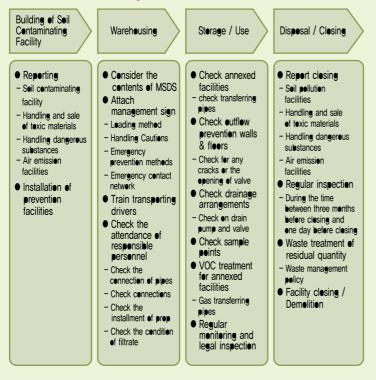


Soil Pollution Management

LG Chem uses a complete management system starting from building a soil contaminating facility to closing-down of the facilities in order to prevent soil pollution.

When constructing a soil contaminating facility, we conduct full consultation with concerned departments according to the internal regulations on soil pollution management. We treat the facilities with concrete pavement and water-proof to prevent any leakage from permeating into the ground. Also, we install them with outflow prevention walls to block the spread of leakage. We regularly check on the facilities and survey soil pollution.

Soil Pollution Management Flowchart



According to the soil and environmental preservation law, the results of the inspection of soil contamination show that soil condition of all of the business sites is favorable within the legal limits. We have published a soil management manual to manage soil systematically at each site.

In addition, we plan to conduct continuous inspection scientifically on the condition of soil and underground water to manage them.

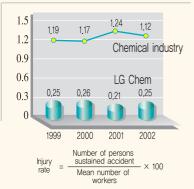


Inspection of Soil Pollution

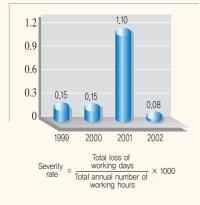
Category	Contents
Period	once a year (adjusted depending on the installed year)
Organization	specialized organizations of soil treatment authorized by the MOE
Items	BTEX, TPH, etc.
Method	standard testing method for soil pollution







Severity rate of Injury



Safety & Health

Under the philosophy of 'Management based on Esteem for Human Dignity', LG Chem recognizes that securing safety is the most important factor of business management. Accordingly, we organize our systems to observe safety regulations in conducting all of our management activities and develop several programs to insure a safe and healthy workplace.

Safety & Health Management Systems

Realizing that the safety and health management is an urgent assignment, we try to improve safety and health conditions in all of the activities related to our products, ranging from product development, production, service, to disposal. We have introduced OHSAS 18001 and KOSHA 18001 and constructed a system of safety and health through the management of PSM and MSDS.

Safety & Health Education / Training

Due to the characteristics of chemical plants, we offer abrupt training on fire prevention and production process. By consigning the education of safety personnel of each factory to outside educational institute, we try to be prepared for immediate response to emergency situation. Also, we give annual workshop for responsible personnel from all business sites and use it as a benchmarking opportunity for sharing information on safety and health.

Safety & Health Diagnostic Activity

We examine our safety and health management system based on OHSAS 18001 and KOSHA 18001. In addition, we check the safety of various facilities at each business site to remove potentially dangerous factors. This check is conducted by each site or by the headquarters. If necessary, we invite domestic or foreign organizations to learn management techniques and professional skills from them. We are making every effort to make workplace safe.

Accident Prevention Activity

We conduct thorough investigations on dangerous factors of various facilities. First, by removing the dangerous factors at each facility, we are trying our best to prevent accidents. We measure risky behaviors of each worker or team, keep cumulative records, and use them to terminate unsafe behaviors and to enhance awareness.

Fire Prevention Management

To minimize the loss in case of fire, we have installed fire sensors and an automatic fire monitoring system. Moreover, we train all of our employees to be fire officers through regular fire drills.



Health Measurement Clinic

We have installed measuring equipments for computerized health diagnosis, physical strength examination, and exercise test for our employees. We provide the diagnosis results and exercise prescriptions to them for optimal health management.







Hearing Preservation Program

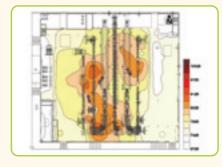
One of the main noxious factors at our business sites is noise. To solve the problems of noise, we initiated a hearing preservation program by organizing a TF team that is composed of specialized organizations and industrial medical experts.

The main contents of the program include precise hearing tests for workers, establishment of standards for noise-related facilities based on the noise map of each business site, technological improvement, and hearing preservation classes. After the effectiveness of this program is proven, we will expand it to all of our business sites.

Safety Management of Business Partners

For the safety management for vendors, we select companies only after we carefully examine their qualifications. After registering them as our partners, we support them with the same technology, education, and testing equipments and conduct evaluations on them. Based on the results of evaluations, we give priority bidding privileges to superior companies.

Noise Map







LG Chem regularly evaluates and improves a system of environment and safety management. We constructed an autonomous management system, and we were approved as an environmentally friendly company by ISO 14001, OHSAS 18001, KOSHA 2000. The execution of the environment and safety management system is checked regularly by both internal and external investigations to confirm the effectiveness and appropriateness of the system.

We try to construct the management system for our Daesan Plant, and for all foreign business sites; and we will try to obtain approvals for those plants as well.

Plant	Type of Certification	Certifying / Designating Org.	Date
Yeosu Plant	ISO14001	DNV	Dec. 1996
	OHSAS18001	DNV	Feb. 2000
	Environmentally friendly company	Ministry of Environment	Dec. 1995
	ISO14001	DNV	Nov. 1999
Cheongju Plant	OHSAS18001	DNV	Dec. 1999
0,	Environmentally friendly company	Ministry of Environment	Dec. 1995
	ISO14001	KSA	Nov. 1996
Ulsan Plant	KOSHA2000	KOSHA	Nov. 2000
	Environmentally friendly company	Ministry of Environment	Dec. 1995
	ISO14001	KFQ	Oct. 1996
Onsan Plant	OHSAS18001	-	To be approved in 2003.
	Environmentally friendly company	Ministry of Environment	May 1996
	ISO14001	-	To be approved in 2004.
lksan Plant	KOSHA2000	KOSHA	Jul. 2002
	Environmentally friendly company	Ministry of Environment	May 1996
	ISO14001	DNV	Jul. 1997
Naju Plant	KOSHA2000	KOSHA	Sep. 2000
,	Environmentally friendly company	Ministry of Environment	Apr. 1998
	ISO14001	-	To be approved in 2004.
Daesan Plant	OHSAS18001	-	To be approved in 2004.
	Environmentally friendly company	-	After 2005.

* KOSHA : Korea Occupational Safety & Health Agency



▶ ISO 14001 Certificate



an environmentally friendly company



Awards

LG Chem has tried to improve the environment effectively and systematically in accordance with ISO 14001, OHSAS 18001, and based on other environmentally friendly businesses. The excellence of our company has been objectively recognized by the following awards :

Da	te	Award Recipient	Name of Award	Sponsor
Nov.	1999	Ulsan Plant	Excellence award for green energy company	Korea Federation for Environmental Movement, and others
Nov.	1999	Cheongju Plant	Environmental Technology Award	Ministry of Environment
Nov.	2000	Cheongju Plant	Excellence award for environmental management (Korean President's award)	Ministry of Commerce, Industry, and Energy
Nov.	2000	Yeosu Plant	Electric safety promotion contest (Korean President's award)	Ministry of Commerce, Industry, and Energy
Dec.	2000	Naju Plant	Excellent business in Social volunteer work	Naju City
Dec.	2000	Ulsan Plant	Excellence award for Environmental management	Ulsan Metropolitan City
Jun.	2001	Cheongju Plant	Environmental Award (Gold prize)	Cheongju City
Nov.	2001	Ulsan Plant	Presentation of excellent case in environmental management (Gold Prize)	National Environment Friendly Business Association
Jun,	2002	Cheongju Plant	Environment Preservation Merit (Korean President's award)	Ministry of Environment
Oct.	2002	Cheongju Plant	Electric safety promotion contest (Prim minister's award)	Ministry of Commerce, Industry, and Energy
Nov.	2002	Ulsan Plant	Environment part Team contests in environmental field (Korean President's award)	Ministry of Commerce, Industry, and Energ

* Individual award recipients of environment preservation merit are excluded.











Love for Nature, Impression for Customers



Appropriate for the characteristics of local areas, LG Chem promotes various environmental activities, such as environmental preservation campaigns, environmental education, and technological support.

- Environmental Preservation Activities
- Community Activities







Environmental Preservation Activities

Ecosystem Protection

In 1997, LG Chem established the LG Evergreen Foundation to preserve the natural environment and to use the land effectively. We are promoting various campaigns such as protecting wild birds and forest ecosystem and improving burial customs in Korea. Our ultimate goal is to achieve harmony between the human beings and nature and to protect the environment of Korea.

Local Community Environmental Preservation Activities

We have taken the initiative in preserving the environment and launched various campaigns such as 'one mountain and one river by one company' campaign, feeding migratory birds, eliminating foreign species of fish, and planting trees. We are constantly promoting activities of reviving the contaminated environment.

Green Plant Campaign

LG Chem has prepared green space to provide a resting place for employees inside each business site. We have planted trees and flowers to naturally purify pollutants such as CO₂, and we are constantly expanding the green zones.

Cheongju and Ulsan plants have environmental gardens and has planted indicator plants that are sensitive to air pollutants, to monitor air pollution around the business sites. In case of detecting problems, we conduct precise measurement and onsite investigation and provide solution for problems. In addition, we use the gardens as an environmental educational place and a resting space for our employees and visitors.









Community Activities

Community Activities

Environmental Education Center

We are running an environmental education center for the local community. We invite local residents and students to environmental facilities and operate various environment education programs for local residents.

Technical Supports for Cooperative Companies & Small and Medium-Size Companies

By providing environmental support to our cooperative companies, we help them manage environmental problems effectively and evaluate them regularly by maintaining partnership with them.

Also, we support local small and medium-size companies by providing environmental management techniques and technology to make them environmentally friendly companies.

Local Environment Association Activities

We participate in the activities of several associations to preserve local community's preservation of the environment, including Yeosu Industrial Complex Environmental Association, Beautiful Yeosu 21 Promoting Association. Cheongju industrial Complex Environmental Development Association, Green Cheongju 21 Promoting Association, Local Area Environment Friendly Business Association.

Environmental Reporting

LG Chem keeps our environment related information open to the public and publishes environmental reports regularly to make our environmental management transparent and to establish trust among all interested parties. We will distribute our environmental reports to those interested through on-line and off-line methods.













Products for the Environment and Safety

System Windows and Doors

Being reinforced with special steel stiffeners, it does not change form or color under extreme daily temperature range and harsh weather conditions. It has excellent air-tightness and excellent sound isolation of 29dB(A), which is much better than that of regular sashes (19dB(A)). With low thermal conductivity and high weatherization, it can reduce energy loss by 33% compared to regular sashes, and it helps to save electric bill.

Lithium-ion / Polymer Battery

Compared to conventional batteries, it is a super light, high energy-dense battery without any heavy metals such as cadmium and mercury.

Automotive Materials : Fuel Tank

- Weight decrease : 40% of steel
- Volume increase : 125% of steel
- Corrosion resistance : Prevent corrosion from CaCl2
- Safety : No explosion in fire
- Economic efficiency : Recyclable

Flame Retardant Materials

It is the most widely used rubber tile in the market. Due to its flame retardant characteristic, it does not burn easily or produce harmful gas when it is on fire.

Traffic / Safety Materials

LG Light ECF has seven different colors, and it is attached to reflection sheets. It has excellent weather resistance and expressiveness, which still gives clarity from long distance. Even in a big city of many lights, it can deliver safety and information efficiently.

Company History

Jan. 1947	Founded Lucky Chemical Industrial Co.				
Nov. 1951	Produced Korea's first Injection-molded Products				
Jun. 1954	Completed Yeonji Plant in Busan				
Mar. 1959	Founded Lucky Fats and Oils Industries Co., Ltd.				
Aug. 1962	Launched Lucky Vinyl Ltd.				
Jan. 1966	Renamed Lucky Chemical Industries Co., Ltd.				
Mar. 1966	Preduced Kerea's first Synthetic Detergent				
Oct. 1969	Went public				
Feb. 1974	Renamed te Lucky, Ltd.				
Nov. 1976	Completed Yeocheon PVC Paste Resin Plant				
Aug. 1978	Completed Ulsan FRP Plant				
Dec. 1979	Opened Lucky Central R&D Center in Daejeen				
Apr. 1984	Cempleted Cheengju Windew Prefile Plant				
Jun. 1986	Completed Cheongju Injection-molding Plant				
May. 1988	Completed Yeocheon EPS Plant				
Oct. 1992	Completed Yeocheon PA plant				
Apr. 1993	3 Developed World's first HCFC-resistant Resin				
Oct. 1994					
Jan. 1995	Renamed to LG Chemical, Ltd.	A			
May. 1997					
May. 1998					
	Completed Tianjin LG New Building Materials Flooring Plant in China				
	Completed Ningbo LG-Yongxing Chemical ABS Plant in China				
Oct. 1999	Completed Lithium-ion Battery, Phosphor, and Copper-clad Laminate Plants in Ch	leengju			
Jul. 2000	Developed Phosphors for PDPs				
Oct. 2000	Completed Ningbo LG-Yongxing Chemical ABS Plant Expansion in China				
Nov. 2000	Acquired Hyundai Petrechemical's PVC Business				
Mar. 2001	Established Battery Research Center In USA				
Apr. 2001	Demerged into LG Chem Investment, LG Chem, and LG Household & Health Care				
Jun. 2001	Developed Korea's first Thermal Conductive Plastic				
Oct. 2001	Completed LG-Dagu Chemical PVC Plant Expansion in Tianjin, China				
001. 2001	Completed Lo Dagu Chemical PVC Flant Expansion in Halijin, China				
Jul. 2002	Started the Operation of ERP System				
Aug. 2002	Started Construction of EP Compounding Plant in China				
	Started Construction of Hisash Plant in China				
Dec. 2002	Started Construction of Information & Electronic Material Plant				
	at Ochang Techne Park				
_					

If you have any questions or suggestions regarding the contents of this environmental report, please contact the following address : Environment & Safety Team, LG Chem, LG Twin Towers 20, Yeoido-dong, Yeongdeungpo-gu, Seoul. Tel : 82-2-3773-7632, 7645 Fax : 82-2-3773-3414 E-mail : jhkimw@lgchem.com This environmental report can be downloaded from the webpage : www.lgchem.com

The contents of this report were produced as of December 31, 2002, and they can be modified without any special notice.



LG Twin Towers 20, Yeoido-dong, Yeoungdeungpo-gu, Seoul 150-721, Korea Tel: 82-2-3773-7632, 7645 Fax: 82-2-3773-3414