ULVAC’s vacuum technologies are predominantly developed in Chigasaki.

Cheer up, ULVAC!
Corporate Profile of ULVAC, Inc.

**Name**
ULVAC, Inc.

**Trademark**
ULVAC

**Head Office**
2500 Hagisuna, Chigasaki, Kanagawa Prefecture 253-8543, Japan

**Established**
August 23, 1952

**Capital**
13,467,979,500 yen

**Number of Employees**
6,356 (including consolidated subsidiaries)

**Business Areas**
Production equipment for flat panel displays (FPDs) (LCDs, organic EL displays, PDPs, etc.), and electronic devices
Production equipment for solar cells, ultra-vacuum equipment, and semiconductors
Vacuum pumps, measuring instruments, and power supplies for vacuum equipment
General industry equipment such as vacuum heat treatment furnaces
Spraying target materials, analysis technologies for nanotechnology, and control solution systems

**Business Domains of the ULVAC Group**
- North America
  - ULVAC Technologies, Inc.
  - ULVAC Latin America
  - ULVAC Manufacturing Corp.
- Europe
  - ULVAC UK
  - ULVAC Germany
  - ULVAC France
  - ULVAC Sweden
  - ULVAC Spain
- China
  - ULVAC (Shanghai) Co., Ltd.
  - ULVAC Automation Technology (Shanghai) Co., Ltd.
- Korea
  - ULVAC (Korea) Ltd.
  - ULVAC Automation Technology (Korea) Co., Ltd.
  - ULVAC Korea, Ltd.
- Singapore
  - ULVAC Singapore Pte., Ltd.
  - ULVAC Automation Technology (Singapore) Co., Ltd.
  - ULVAC Electronics Pte., Ltd.
- Other businesses
  - Materials, Inc.
  - ULVAC Automation Technology (Shanghai) Corporation
  - ULVAC Automation Technology (Shanghai) Corporation

**Origin of Company Name**
‘ULVAC’ is a combination of ‘UL’ from ‘ultimate’ and ‘VAC’ from ‘vacuum’, signifying that we pursue the ‘Ultimate in Vacuum Technology’.

**Editorial Policy**
ULVAC, Inc. (hereafter ULVAC) published its first Environmental Report in 2002, and expanded the scope of the report to the entire ULVAC Group in 2004. We published the Environmental and Social Responsibility Report in 2006. We changed the report’s title to CSR Report in 2007.

The theme of the CSR report 2008 is ‘contributing to the development of science and industries with its proprietary cutting-edge technologies’. The report starts from the explanation of ULVAC’s vacuum technology. The special features section covers the following topics with which ULVAC contributes to the environment and society; an integrated production line for thin-film solar cells (TFSCs or TFSC), target materials business and resource recycling, and hybrid cars. In the second half of the report, the CSR activities of the ULVAC Group are reported in easily understandable ways, along with comments from employees in an effort to enrich the Group’s social responsibility. The report is also published to promote understanding of the Group’s CSR activities and to deepen our communications with a broad range of stakeholders.

**Report’s Scope and Period**
**Scope:** ULVAC Group

While the report covers the ULVAC Group as a whole, any reports for which the scope differs are indicated.

**Period:** Year ended June 2008

(July 1, 2007 to June 30, 2008)

Information relating to periods other than the above is also included.

**Published:** September 2008

**Guidelines Referenced**
Japan’s Ministry of the Environment; Environmental Reporting Guidelines 2007

Japan’s Ministry of the Environment: Environmental Performance Indicators Guideline for Organizations 2002

About the Cover
Children of ULVAC’s employees were photographed at Chigasaki Beach under the theme ‘Cheer up, ULVAC!’
— With growing interest in global environmental issues, how do you plan to develop the businesses?

The ULVAC Group has carried out fundamental research into solar cells since its early years, and began offering its production equipment from the early 1980s, mainly to customers in Japan. In recent years, the solar energy business has expanded rapidly in Europe as a result of various government initiatives. Given the circumstances, we have developed an integrated production line for TFSCs that applies our vacuum technology, in the hope of meeting the demand of expanding solar energy use.

— Please describe the basic principle behind the CSR management of the ULVAC Group.

The corporate philosophy of ULVAC Group is to contribute to the evolution of industries and science with its proprietary cutting-edge technologies. The basic principle behind our CSR activities is to enhance our corporate value based on our philosophy, thereby benefiting our customers, shareholders, society, employees and various other stakeholders.

Interview with President Suwa

Environmental contribution with solar cells that make use of proprietary technologies of the ULVAC Group

— Please describe the basic principle behind the CSR management of the ULVAC Group.

The corporate philosophy of ULVAC Group is to contribute to the evolution of industries and science with its proprietary cutting-edge technologies. The basic principle behind our CSR activities is to enhance our corporate value based on our philosophy, thereby benefiting our customers, shareholders, society, employees and various other stakeholders.

Also, we seek to respond to the needs of solar cell manufacturers in Southeast Asia, the Middle East, India and other parts of the world.

In addition, we are developing energy devices such as hybrid car motors and batteries, as well as light-emitting diodes (LEDs), which are expected to find broader application in household lights. We will continue our research and development work with a focus on the areas of energy and the environment.

The issues of equipment of the ULVAC Group are resource and energy conservation.

— What are your thoughts regarding CO₂ reduction in the manufacturing phase?

In our production equipment, we use 6,000 to 10,000 tons of thick stainless steel plates each year. This accounts for about 10% of the stainless steel plates manufactured in Japan. Equipment that uses a large volume of stainless steel places a significant burden on the environment. Given this, we need to develop resource- and energy-conserving equipment that structurally reduces material and electricity consumption, while maintaining designed strength. Bearing in mind the fact that the emissions trading system is likely to be introduced for the industrial sector, we will actively develop equipment that offers excellent quality, cost performance and productivity, as well as environmental performance.

Toward the global development of ULVAC solutions

— What kind of organization do you aim to develop, in view of Group management?

The ULVAC Group comprises ULVAC and about 60 domestic and overseas Group companies. We will proceed with business reorganization and restructuring in fiscal 2008 to strengthen the ties between Group companies. As part of these structural reforms we will promote internal control, which has been an issue. We will then set up an organization control to offer comprehensive ULVAC Solutions that are backed up by the synergies effects attained by the Group.

— Please share your thoughts on future global business development.

In order to achieve continued growth in the future, we will develop our business globally, especially in Asia, the Middle East, and India. When we engage in worldwide operations, we should promote the “open and dynamic” ideas that form part of our corporate spirit, while ensuring that due respect is accorded to the culture and climate of the region and country. This would ensure that ULVAC Solutions become more closely connected with customers and regional communities. While maintaining an awareness of our responsibilities as a global company, we will continue offering products and services of an even higher quality, taking the environment into account.

— Please compare the environmental contribution with solar cells that make use of proprietary technologies of the ULVAC Group and the equipment of the ULVAC Group.

The ULVAC Group contributes to the development of science and industries with its proprietary cutting-edge technologies. We believe that fulfilling this mission is the best way for the ULVAC Group to provide a benefit to society.
ULVAC has developed vacuum technology that utilizes the diverse phenomena created by vacuums.
ULVAC combines vacuum technology with coating technology to provide society with a broad array of products, which enrich industry and lifestyles.
With vacuum coating technology at the core, ULVAC will develop proprietary and innovative technologies, and contribute to society as a world-leading comprehensive vacuum manufacturer.

ULVAC’s coating technology using vacuums

To form thin film, ULVAC has developed coating technology using the properties of vacuums. The use of vacuum technology enables the coating of extremely thin film, with thicknesses ranging from μm (micrometers) to nm (nanometers). (1mm = 1,000 μm = 1,000,000 nm). It is impossible to coat thin film by physically stretching materials. Instead, advanced technologies are necessary to break the materials down into atoms and molecules and deposit them in a vacuum.

Vacuum deposition

In a low-pressure environment (vacuum state), a (solid) substance is heated and made to evaporate. The evaporated substance is deposited on the surface of a glass substrate, forming a thin film. The vacuum state lowers the boiling point of the substance and facilitates its evaporation.

Sputtering

In a vacuum, high-energy atoms are made to collide with the coating material, and are scattered like billiard balls and made to attach to the surface of a glass substrate in layers, forming a thin film.

Chemical Vapor Deposition (CVD)

The material gas of the thin film is added to a vacuum with energy such as heat, plasma, and light, causing the gas to decompose, react and deposit a film on the substrate.

Combining the vacuum and coating technologies makes it possible to create a thin film. ULVAC’s vacuum coating technology is indispensable for areas experiencing rapid technological innovation such as FPD, solar cells, and next-generation FPD production technology.

ULVAC contributes to the development of science and industries with its proprietary cutting-edge technologies

Solar cells

With the expanding solar cell market, ULVAC has built an integrated production line for TFSCs. In addition to the equipment, contingent services such as instructions on manufacturing and maintenance work are being offered. ULVAC has developed a new business model. We have also focused our efforts on developing tandem-type TFSCs with the aim of enhancing power generation efficiency.

Flat panel display (FPD)

ULVAC is one of the world’s largest FPD production equipment manufacturers. We have contributed to almost all areas of FPD that have found practical application, including LCD, plasma, organic EL and FED. In particular, we boast the largest market share for sputtering equipment.

Next-generation FPD manufacturing technology

ULVAC has focused intensively on developing next-generation manufacturing technology for FPD. In the area of liquid crystal, we have endeavored to address the following technologies: (1) wiring technology that fuses nano metal ink with inkjet technology, (2) spacer technology using ink jets, and (3) liquid crystal dipping and vacuum bonding.

Technologies that contribute to digital home appliances

With improvements in the performance of digital home appliances and reductions in their size and weight, ULVAC has developed electronic device production equipment that applies technologies that are indispensable for semiconductor manufacturing. We have developed composite semiconductors such as LEDs, micro electromechanical systems (MEMS), high-density packaging, and optical film-film devices.

Semiconductor devices of hybrid cars

In the hybrid car power system, capacitors and power semiconductors play important roles. ULVAC offers a wide range of thin-film equipment used exclusively with ultrathin wafers for power semiconductors. Moreover, our vapor deposition equipment for film capacitors has attained the leading market share in the area of hybrid cars.

Thin-film materials and cleaning

As the size of LCD increases and the resolution becomes higher, demand has grown for highly pure target materials that use aluminum and copper alloys. ULVAC has made every effort to recycle and provide high-precision cleaning of guarding plates, in addition to recovering indium and other rare metals. We have also developed a cleaning method that does not use acid or alkali, resulting in smaller environmental loads.

Contributing to Society through Proprietary Vacuum Coating Technology
Integrated Production Line for TFSCs

Given the rapid growth of the solar cell market, ULVAC has focused on developing an integrated production line for TFSCs. In 2007, we established an integrated production line for TFSCs at a solar cell manufacturer in Taiwan, and became the world’s first manufacturer to begin mass production. At Chigasaki Plant, we have taken steps to enhance power generation efficiency.

Expanding solar power generation market

The greenhouse gas reduction period in the Kyoto Protocol for preventing global warming commenced in 2008, and the Toyako Summit was held in July. Full-scale measures to prevent global warming are now being taken worldwide. The global market for solar power generation is expanding, as it is a clean energy source that does not rely on fossil fuels, and also does not emit CO2. According to the European Renewable Energy Council’s figures on global electricity demand, it is estimated that solar power generation will account for one-quarter of renewable energy by 2040 (Figure 1).

In Japan, a policy has been established to increase the introduction of solar power generation by forty times by 2030 as a measure to combat global warming. Also, the government of Japan announced that it would be providing financial assistance for incorporating solar cells in households and supporting measures for large-scale solar power generation systems. As can be seen, solar power generation is set to grow.

Expectations for TFSCs

In the solar power generation market, the conventional approach has used crystalline silicon solar cells. However, silicon is costly and is now in short supply due to the rapid growth in use of solar cells. ULVAC has resorted to develop thin-film silicon solar cells capable of absorbing sufficient solar energy with a thickness of only around 0.3 μm. As such, the quantity of silicon used is one-hundredth that used in crystalline silicon cells, reducing the environmental load. We are currently making thin-film silicon solar cells lighter, larger, in higher energy conversion efficiency and lower in cost.

Full-scale production with an integrated production line for TFSCs

ULVAC began developing solar cell production equipment around 1976. Applying the technologies cultivated through the development of FPD production equipment, the integrated production line for TFSCs was completed in 2006 at Chigasaki Plant. The line consists of equipment such as plasma CVD equipment, patterning equipment, and laser patterning (Figure 2). ULVAC’s integrated production line for TFSCs offers not only guaranteed device performance and production volume, but also supplementary services such as production support and maintenance. In 2007, we delivered an integrated production line for TFSCs to a solar cell manufacturer in Taiwan and began operation. ULVAC provides comprehensive support, including guaranteed solar panel performance and technical assistance for manufacturing. In this way, we have succeeded in initiating full-scale production of solar cells ahead of any other manufacturer worldwide.

 Generating Energy with Solar Cells

Ulvac promotes research on volume production technologies for CIS solar cells

On July 3, 2008, Showa Shell Sekiyu K.K. announced its intention to construct a solar cell plant with an annual production capacity of 1,000 MW by 2011. ULVAC is collaborating with Showa Shell Sekiyu K.K. and its subsidiary Showa Shell Solar Co., Ltd. to undertake joint development aimed at improving CIS solar cells’ volume production technologies. The collaboration between Showa Shell Sekiyu K.K., which excels at CIS solar cell production technology, and ULVAC, which has applied vacuum technology to semiconductor and FPD development, is expected to accelerate the development of manufacturing facilities with superior production capacity.

ULVAC will continue contributing to the environment by offering integrated production line for TFSCs and actively pursuing the technological development of next-generation solar cells.

* CIS solar cells are made of a compound of copper, indium and selenium. As they do not require silicon, expectations are high with regard to their volume production as the next-generation solar cells.

We contribute to global solar power generation

ULVAC has stepped up action in energy and the environment in its post-FPD businesses. We have concentrated on the solar cell business, and are the world’s first manufacturer to launch an integrated production line for TFSCs, by combining our accumulated expertise with the latest technologies. ULVAC is challenging the pioneering business model, in which production assistance, maintenance and other services are offered in conjunction with the equipment. We will be delivering integrated production lines primarily to the Asia and Middle East regions to contribute to global renewable energy production.

Figure 1: Estimated Global Electricity Demand


Figure 4: Comparison of Quantum Efficiency in the Practical Wavelength Region between the Amorphous Layer, the Microcrystal Layer and the Tandem Structure

ULVAC Group CSR Report 2008
**Target Materials Business and Resource Recycling**

While resources continue to be depleted worldwide, ULVAC Group has pursued total solution businesses that involve the development of target materials that are essential for manufacturing FPDs. Along with this, the Group has sought to encourage more efficient use and recycling. As part of its commitment to protecting the environment, the Group has also developed new environmentally aware cleaning technology.

**Expanding sputtering target market and improved efficiency in use**

Resources are indispensable for our daily lives. Most resources impose a burden on the environment when they are used. Drawing on its original technologies and know-how, the ULVAC Group has been seeking ways to effectively use and recycle valuable resources. ULVAC is one of the world’s largest production equipment manufacturers of FPDs. Our strength is that we have contributed to almost all types of FPDs for practical use, including LCDs, plasma (PDP) and organic EL (OLED). In particular, regarding LCDs we are the world’s largest supplier of sputtering equipment, which performs key tasks in the front-end process (array substrate manufacturing).

To succeed in a fiercely competitive global market, any company must use rare metals that are used in components more efficiently. Increased efficiency in the use of rare metals also assists in the effective use of limited reserves of resources. The ULVAC Group has sought to improve the efficiency of the use of target materials since 2005, and has continued to extend the target life and reduce the use of expensive rare metals in materials.

**Development of new cleaning technology**

Cleaning is an important technology for improving product appearance and maintaining proper performance. ULVAC has developed a unique cleaning technology that takes the environment into consideration.

The new cleaning technology does not use acids, alkalis and other chemicals used in conventional cleaning technologies. This has led to a successful reduction in exhaust gas and liquid discharges, thereby reducing the burden on the environment. In addition, the new cleaning technology does not damage materials (aluminum, stainless steel, copper and others), and can extend component service life.

Moreover, the post-off adhesive films can be easily removed, dramatically improving the recovery ratio. This enables precious and rare metals to be recovered and recycled, contributing to the conservation of resources. In addition, the recovery and purification processes have been simplified to achieve greater productivity.

**Promoting solutions business**

Aiming to encourage resource conservation and recycling, the ULVAC Group has developed a total solutions business that combines the following technologies: development of target materials for FPDs and semiconductors, improvements in the efficiency of target materials use, guarding plate cleaning, target material recycling, and factory outsourcing (FOS). Moreover, the ULVAC Group’s unique and reliable technologies will satisfy diverse needs of customers through sales of used equipment and refurbishment, etc.

**Figure: Flow of Renewal, Precision Cleaning**

- **What is the sputtering method?**
  - Positive ions of argon gas are generated when high voltage is applied.
  - Ion-collides onto the target and the thin-film material is scattered.
  - A thin film is formed on the substrate.

- **Development of new cleaning technology**

  The ULVAC Group is constructing a cleaning plant for large components in Hashimoto City (Wakayama Prefecture, Japan) as a new support center to cope with the expanding target business. It is aiming for completion in January 2009. In the target business, the ULVAC Group will continue developing materials and technologies that take the environment into account, while at the same time offering solutions of the highest quality to meet customer needs, from processing and cleaning to recycling.
**Contributing to Hybrid Cars with New Technologies**

**Production of Core Devices of Hybrid Cars**

Hybrid cars were introduced to the market in the late 1990s. They were the first of the environmentally friendly cars to be produced in large volumes, and they have attracted constant attention. To meet demand for hybrid car devices featuring even greater efficiency, ULVAC has used cutting-edge vacuum technology to develop and offer production equipment for these devices.

**Increasing attention has been paid to ecologically friendly cars (eco-cars) as public awareness of environmental issues increases, and also as a result of surging global crude oil prices. Worldwide sales of hybrid cars have grown steadily in recent years. Hybrid cars are equipped with both an electric motor and a fuel-powered engine. They are environmentally friendly, since they can reduce the consumption of gasoline and other fossil fuels, and also CO2 emissions by switching between driving systems. ULVAC’s vacuum technology are being used to manufacture permanent magnets of the motor, condenser for power control unit, and power semiconductors.**

**The electricity consumed by motors accounts for as much as 50% of total electricity consumption in Japan. It is claimed that by reducing the rotation efficiency of motors by 1%, the operation of one nuclear reactor with a power generation capacity of 500 MW can be saved. Energy-saving motors that utilize high-performance rare-earth permanent magnets reduce power consumption by 20 to 30% when rotated at low speed. As such, these motors have been rapidly adopted for among motors and power generators for hybrid cars and energy-saving home appliances. Dysprosium (Dy) and terbium (Tb) are added to the high-performance sintered rare-earth magnets contain not only the main constituent element neodymium (Nd), but also Dy and Tb that enhance the magnetic coercive force and magnetic flux density in the high temperature range. Dy in particular is an indispensable element for enhancing these properties. Dy is a rare-earth element being contained in rare-earth ores in only a small amount and at which production takes place mostly in China. As such, shortage of supply has been a concern in view of the expanding demands on energy-saving motors for eco-cars and other applications employing high-performance rare-earth permanent magnets. Japan’s Ministry of Economy, Trade and Industry has designated the technological development for reducing Dy content in the magnet as an important research topic. In its “Alternative Material Development for Rare Metals Project,” it has set a target of establishing technology of reducing the Dy consumption rate by 30% or more from the present level for rare-earth magnets by 2031. ULVAC has also promoted research on enhancing the performance of rare-earth permanent magnets in view of resource and energy conservation issues. As a result, ULVAC has completed the equipment called Magrise that reduces the Dy use by 30 to 80%. ULVAC contributes to motor efficiency and energy conservation by offering various devices for manufacturing magnets, including the vacuum melting furnace.**

**Highly pressure-resistant, space-saving and lightweight film capacitors**

In the engine system of hybrid cars, the technology for controlling the electric current flowing between the motor and battery is very important. Condenser is indispensable for conversion equipment that converts electric current between the motor (alternating current) and the battery (direct current). With an emphasis on improved car mileage, it is important to reduce the weight and size of hybrid car devices as well. Today, the typical film capacitors are smaller in size, lighter, and better in capacity to withstand voltage. ULVAC’s vacuum evaporation roll coater for film capacitor, now the industry standard, has reduced the substrate film thickness to 3 μm or less at a rated voltage of 750 V, and forms the fuse circuit at the time of film formation. The film capacitors in hybrid cars are expected to increase further as fossil fuel use declines. ULVAC will continue developing film capacitor production technology to respond to market needs.

**Sintered rare-earth magnet with reduced dysprosium—indispensable for high-efficiency and energy-conserving motors**

The electricity consumed by motors accounts for as much as 50% of total electricity consumption in Japan. It is claimed that by reducing the rotation efficiency of motors by 1%, the operation of one nuclear reactor with a power generation capacity of 500 MW can be saved. Energy-saving motors that utilize high-performance rare-earth permanent magnets reduce power consumption by 20 to 30% when rotated at low speed. As such, these motors have been rapidly adopted for among motors and power generators for hybrid cars and energy-saving home appliances. Dysprosium (Dy) and terbium (Tb) are added to the high-performance sintered rare-earth magnets contain not only the main constituent element neodymium (Nd), but also Dy and Tb that enhance the magnetic coercive force and magnetic flux density in the high temperature range. Dy in particular is an indispensable element for enhancing these properties. Dy is a rare-earth element being contained in rare-earth ores in only a small amount and at which production takes place mostly in China. As such, shortage of supply has been a concern in view of the expanding demands on energy-saving motors for eco-cars and other applications employing high-performance rare-earth permanent magnets. Japan’s Ministry of Economy, Trade and Industry has designated the technological development for reducing Dy content in the magnet as an important research topic. In its “Alternative Material Development for Rare Metals Project,” it has set a target of establishing technology of reducing the Dy consumption rate by 30% or more from the present level for rare-earth magnets by 2031. ULVAC has also promoted research on enhancing the performance of rare-earth permanent magnets in view of resource and energy conservation issues. As a result, ULVAC has completed the equipment called Magrise that reduces the Dy use by 30 to 80%. ULVAC contributes to motor efficiency and energy conservation by offering various devices for manufacturing magnets, including the vacuum melting furnace.

**Power semiconductor for controlling high voltage**

Electronic devices and automobiles used in our daily lives need to convert the electricity they take in to meet each application. The semiconductor device used for controlling the electricity conversion circuit is called a power semiconductor. The power semiconductor refers to integrated circuits (ICs) that combine semiconductors and electronic devices such as transistors, diodes, and resistance. Demand for power semiconductor is growing in the automobile and home appliance markets, and the insulated gate bipolar transistor (IGBT) has garnered the most attention. The IGBT is a thin power semiconductor that enables large-volume current to flow with minimal loss, and it has also been used in hybrid cars. ULVAC’s ion injection equipment SOPH brings the automatic processing of this wafer for IGBT. For the next-generation power semiconductor, the current standard wafer material silicon is being replaced by silicon carbide to boost performance. Silicon carbide has low electricity loss and offers excellent pressure resistance and thermal conductivity.

ULVAC’s volume-production ion injection equipment IH-860DSIC has resolved issues regarding ion injection technology for silicon carbide ahead of any other manufacturer anywhere in the world. With the most cutting-edge technologies, ULVAC continues to supply production equipment for permanent magnets, capacitors and power semiconductors, which are vital for configuring hybrid cars.
Corporate Philosophy

ULVAC Group companies cooperate to contribute to the evolution of industries and science by using vacuum technologies and the peripheral technologies all-inclusively.

Responsibilities to stakeholders

Customers and suppliers
ULVAC regards customer relationships as imperative, and is continuing efforts to enhance quality and safety.

Shareholders and investors
ULVAC strives to disclose corporate activities and financial information promptly to communicate closely with shareholders and investors.

Employees
ULVAC offers various measures for establishing a comfortable and secure working environment where employees can take a variety of approaches to work.

Global environment
ULVAC regards the conservation of the environment as one of the core issues for humankind, and always takes the environment into consideration in its business activities.

Local communities
ULVAC tries to carry out social contribution activities that are embedded in the customs and culture of each country and region.

Corporate Governance

The ULVAC Group regards corporate governance to be one of the most important issues for business operations. We believe that compliance with laws and regulations leads to the improved performance of corporate responsibilities, and furthermore to the enhancement of corporate value.

ULVAC’s management structure

Establishing the foundations for greater corporate value

ULVAC regards fairness, neutrality and transparency as vital for business operations. Accordingly, our 18-member Board of Directors includes two external directors, and the five-member Board of Corporate Auditors includes three external corporate auditors. The Board of Directors meets as required to maintain momentum, in addition to the regular monthly meetings. The corporate auditors have established close ties with the Internal Auditing Office and also with external independent auditors, while maintaining the necessary objectivity for closely overseeing the business structure. ULVAC’s business structure has been configured to allow prompt management decision making, while maintaining sufficient monitoring functions.

Operational structure

ULVAC has established a Board of Standing Directors and Auditors to supplement the Board of Directors, to enable prudent examination of key business matters when conducting operations. Meetings of the Board of Standing Directors and Auditors are held twice a month on a regular basis, and additional ad-hoc meetings are held as required, enabling prompt management decision-making. The corporate auditors participate in all important company meetings including those of the Board of Standing Directors and Auditors, so that they can impartially express their opinions and conduct monitoring activities.

Company-wide measures

ULVAC has established a Corporate Code of Conduct that sets out the code of conduct required of each employee, and distributed its booklet to each employee. ULVAC has established the Compliance Violation Reporting System, which is available for all employees, and the Compliance Committee that deals promptly with matters reported. Through taking these comprehensive actions ULVAC has practiced its commitment to corporate governance.
Compliance

To introduce systems for full compliance with laws and regulations, the ULVAC Group has systematically established Compliance Regulations and related rules. The regulations stipulate matters related to the Compliance Committee and the Compliance Violation Reporting System, and activities are continuously implemented to cement a spirit of compliance across the company.

Establishment of a Corporate Code of Conduct

Cultivating a spirit of compliance in each employee

ULVAC has established a Corporate Code of Conduct consisting of 18 items that describe the behavioral standards expected of employees. A booklet outlining the Code of Conduct is distributed to each employee with the explanation of contents. This serves as guide of each employee’s spirit of corporate compliance.

Compliance with laws and regulations via the Compliance Violation Reporting System

Prevention of risk expansion through requirement for strict confidentiality

ULVAC has developed a Compliance Violation Reporting System to minimize the effects of any violations of laws and regulations. The contact point for the Compliance Violation Reporting System is the Internal Auditing Office that serves as the secretariat of the Compliance Committee, the internal compliance investigation division. To facilitate the use of the Compliance Violation Reporting System, the independence of the Office’s activities is ensured, and anonymous information is accepted. Moreover, the President and general managers of each department serve as members of the Compliance Committee to ensure prudent examination while assuring the fairness of internal investigations. Each member is required to maintain strict confidentiality, and operate the system so that reporters and investigators are not treated detrimentally. Numerous interviews are held for internal investigations, both with internal and external persons, and attorneys also attend in cases where expertise is required.

Dealing with acts of violation

If, as the result of an investigation, the Compliance Committee finds that laws and internal regulations are being violated, action is quickly taken to put a stop to the act causing the violation. Penalties are imposed on those involved in the violation, and stringent penalties may be imposed in the case of serious violations after examination by the Disciplinary Committee. In addition to investigating individual cases, the fundamental causes that brought about the violation are also studied to formulate measures for preventing recurrence.

Active global development

Yoshihiro Tsunemi
Senior Managing Director and General Manager of the Management Planning Department

ULVAC established the Compliance Committee in 2003, and operates in accordance with the Corporate Code of Conduct. We recognize that the Corporate Code of Conduct does not exist solely to ensure compliance with laws and regulations, but also to achieve the basic business policies of ULVAC through the awareness and actions of each employee.

We will continue our commitment to education so that the spirit of the Corporate Code of Conduct is more widely adopted by each employee. In addition to developing ethical and compliance systems within domestic Group companies, we will also establish these systems at local subsidiaries overseas, with consideration given to the customs and culture of each country and region.
CSR Management

Risk Management

The ULVAC Group has developed an organization that facilitates prompt and appropriate action against increasingly complex and diverse risk factors, through a process of identification, classification, analysis and evaluation. By linking the risk management system to strategic business administration, we seek to achieve even greater corporate value.

Creating a risk management system

Establishing rules common across Group companies, and strengthening the system for dealing with diverse risks

The ULVAC Group believes that expanding the risk management system is a critical business task, and it is continually looking at how best to operate the system. We have established the ULVAC Risk Management Policy to implement rules common across all Group companies. As a result, information on risks is conveyed promptly to related departments and also to the President, to enable flexible and timely action. A system has been established whereby the President of each Group company assumes the position of Chief Risk Officer, and conveys risk information to the President of ULVAC.

ULVAC risk management system

Establishing a Risk Management Committee for continuous system development

ULVAC has classified a wide range of risks, and has set up departments responsible for each of them. Each division functions as an information center that works with related departments to identify and evaluate all specific risks, and then collects information to deal appropriately with the situation, while detecting any issues that arise. For risk information deemed to be important in the evaluation process, we continually collect information to enable prompt responses to emergencies. A Risk Management Committee, chaired by the President, has also been established to verify the risk management system. As the supervising organization for risk management, the Committee meets twice a year to set out basic policies and improve the management and operational situation.

Creating an internal control system

ULVAC has built an internal control system for the entire Group, so that the governing organization will also comply with legal requirements. ULVAC works closely with each Group company to develop and improve the administrative systems of Group companies, including their regulations and organizations.

Preparing a business continuity plan (BCP)

Developing a BCP through a process of ongoing revision

ULVAC is creating a production system that protects customers from the fallout of major disasters.

ULVAC has five major domestic production sites and more than five facilities overseas, principally in Asia, and is taking steps to ensure that the global sites supplement each other in times of emergency. In addition, the server for the core IT system has been installed at a secure data center, which is located separately from the production sites. The contract with the data center provides for indemnities protecting against downturn, just one initiative to minimize any suspension of business in the event of disaster.

Establishing an Information Security Committee

Consistently sound and secure business activities

ULVAC recognizes that the unauthorized disclosure of the diverse information it handles would damage its credibility with customers and business partners, and result in a loss of confidence in the community. With this in mind, we have established the Information Security Committee, consisting of representatives from all ULVAC departments. The Committee reports every six months and provides comprehensive instructions to share improvements among all Committee members.

Comprehensive information management

Bolstering information security

ULVAC handles a diverse array of information. We have classified information types and charged a department with the responsibility of ensuring that specific instructions and measures are provided. This classification has enabled swift reminders in the course of daily business and rapid responses to emergencies.

Developing IT initiatives

Improving information literacy among employees

Preventing unauthorized information disclosure

To protect mobile company PCs, ULVAC has put in place protections against information leaks associated with theft, loss or visibility, by setting hard disc passwords and providing privacy filters against prying eyes. To avoid information leaks associated with the use of Winny and other file sharing software, we prohibit employees from using personal PCs for work, comprehensively manage anti-virus software, and monitor other software installed on our PCs.

We also provide introductory training to all employees on the use of PCs. In addition, all employees are mandated to receive information security education once a year, starting in 2008. These measures enable continuous information security maintenance and improvement.

Basic policies for protecting intellectual property

The ULVAC Group maintains a basic policy of respecting the intellectual property rights of third parties, as well as protecting the results of research and development with intellectual property rights, and utilizing them effectively throughout the Group.

Respecting third-party intellectual property rights

When selling our products, ULVAC has a firm policy of only offering products that customers can use in the knowledge that intellectual property rights are respected. If any intellectual property issues arise regarding a product, we will take responsibility for resolving them. To properly execute this policy, we have established the Patent Risk Management Regulation. The Regulation aims to prevent patent infringement issues from arising, and to deal promptly with any intellectual property right issues that do occur. It also clearly sets out the management method and system for intellectual property rights (role and scope of responsibilities of personnel). ULVAC has established patent investigation groups for the technologies and products it owns (143 teams as of June 2008), to regularly survey and monitor third-party intellectual property rights.

Encouraging patent applications

The Employee Invention, Design and Creation Management Regulation clarifies the internal procedures for any invention created by an employee and any payment made as consideration for that invention. Given the diverse forms of employment, the Regulation is revised continuously to encourage invention and creativity among all employees involved in research and development. Patent seminars are also offered to younger-generation employees every October, as part of our efforts to encourage patent applications.

Managing patents and sharing intellectual property information

The ULVAC Group has established an Intellectual Property Rights Management Regulation, which aims to expand ULVAC Group businesses by leveraging the intellectual property owned by Group companies.

The Intellectual Property & Licensing Division meanwhile serves as the secretariat for semiannual ULVAC Group Patent Management Committee meetings. The meetings enable discussion and sharing of the results of investigations into third-party intellectual property rights, the status of patent applications by Group companies, issues related to intellectual property management and other matters.
Greater Customer Satisfaction and Quality

Almost all production facilities of the ULVAC Group have now obtained ISO9001 certification. In addition, we have established standards and certification system for the ULVAC brand, along with the unique Claim Management System. Through these initiatives, we have sought to create high-quality products that provide customer satisfaction.

ULVAC quality assurance
Pursuing product safety and security

The ULVAC Group has completed certification procedures for the international ISO9001 standard for quality management systems at almost all of its production facilities. This reflects our commitment to manufacturing high-quality products at our facilities and at joint ventures. To maintain the ULVAC quality, we have established standards and certification system for the ULVAC brand, and operate a stringent checking system when commencing production and certifying models.

For quality assurance, the Corporate Quality Assurance Committee meets every quarter, chaired by the President of ULVAC, to comprehensively check and address quality issues involving not only ULVAC’s divisions but also Group companies and overseas companies manufacturing our products under contract. The quality improvement index is obtained from the ratio of the costs arising from quality issues and customer claims (including the consolidated costs of manufacturing assignees), to product improvements. Improvements are made on an ongoing basis.

Making rapid improvements based on quality information
Sharing information on quality issues and making ongoing improvements to bolster quality

Our Claim Management System
All information on quality issues related to ULVAC and its production facilities is managed comprehensively by the Claim Management System, enabling the information to be shared by the Group. The workflow is such that when information is input via the Intranet, an e-mail message is automatically generated and sent immediately to the processing personnel, and the personnel involved in the subsequent process are advised. The system clarifies the person in charge of each process and the deadline at the Chigasaki Plant or manufacturing assignees, contributing to prompt action on quality claims. Needless to say, claims sent in by customers after product delivery are also processed by the system. When a serious issue arises in terms of safety, the system automatically sends out the information to all management personnel according to the level of risk of each claim. Key claim information is reported at the Monthly Business Meeting (a monthly meeting attended by the President and division managers), and responses are discussed and determined via a top-down approach.

Quality Policy
We are committed to improving the Quality of our work to provide products and services that satisfy our customers.

Action Policies
1. We comply with all rules and procedures.
2. We do not deliver any nonconforming products to the next process.
3. We observe delivery times to the next process.
4. We commit to the production budget.

Claim Management System

Offering improved quality to customers

We often take our customers on guided tours through our research institutes and plants, and we regard each detail as constituting the ULVAC quality offered to customers, such as the way workers greet each other when they walk by, and how well the workplace is organized. At the same time, the tours provide important opportunities for enabling customers to become familiar with ULVAC’s dedication to quality, the environment, safety, and the way we manufacture products.

By actually seeing plant facilities and the latest technologies, many customers come to understand ULVAC’s high quality and gain an appreciation for it. Occasionally, customers will also express opinions on shortening delivery periods and quality issues.

ULVAC products are production equipment that are incorporated in the manufacturing processes of customers. We are always aware that if any problems occur, there is a risk that customer products and quality could be seriously affected. Improving security and reliability for customers is consequently a daily commitment for us.

Enhancing customer satisfaction
Using customer feedback in our business

ULVAC was received a world’s 10 BEST rating in the Large Supplier Section of the Global Survey of Customer Satisfaction with Semiconductor Manufacturing Devices conducted by VLSI Research (of the United States) in 2004, 2006 and 2008. Of particular note is the fact that in 2008, ULVAC ranked 5th, its highest achievement yet. 10 Best Awards has a track record of more than 20 years in annual evaluations of customer satisfaction related to semiconductor production equipment manufacturers worldwide, and is an authority in this area. ULVAC operates a system for recording customer comments and evaluations in a customer information database called Equipment Master each time ULVAC Group sales and service personnel make contact with customers. The system is used for evaluating and analyzing customer satisfaction. ULVAC then uses these customer opinions to continuously improve quality and customer satisfaction.

Receiving the 10 BEST recognition at Semicon West
Suppliers are indispensable to the ULVAC Group. Our policy is to build mutually beneficial relationships with suppliers based on trust, by maintaining and promoting sound, fair and impartial transactional relationships. We also practice a policy of Green Procurement for materials.

ULVAC Procurement Policy

1. Compliance with laws
   (1) The ULVAC Group will conduct corporate activities based on laws, regulations, social standards and common sense.
   (2) The ULVAC Group will fully comply with related laws and regulations.
2. Maintenance and promotion of fair and free competition
   (1) The ULVAC Group has established the ULVAC Procurement Policy to maintain and promote fair, impartial and free competition worldwide.
   (2) The ULVAC Group will provide procurement agents with information on worldwide suppliers.
   (3) The ULVAC Group will establish a competitive procurement system.
3. Sound and mutually beneficial relationships with suppliers and related parties
   (1) The ULVAC Group will maintain and promote sound, fair and impartial transactional relationships.
   (2) The ULVAC Group will provide procurement agents with future business forecasts.
4. Global procurement
   (1) The ULVAC Group will ensure procurement agents capture offerings and receive goods on a competitive basis.
   (2) The ULVAC Group will coordinate and maintain a competitive procurement system.
5. Preventing global procurement
   (1) The ULVAC Group will continue to maintain a competitive procurement system.
   (2) The ULVAC Group will continue to improve its system with a competitive procurement system.

As its business expands, the ULVAC Group increasingly procures goods and services globally. The Global Procurement Committee has met bi-monthly since 2005, with personnel in charge of procurement at overseas sites in attendance. At the meetings, information on worldwide suppliers is shared with the aim of achieving objectives related to the quality, cost and delivery of materials.

Global procurement

Collecting information on overseas goods to achieve optimum order distribution

As its business expands, the ULVAC Group increasingly procures goods globally. The Global Procurement Committee has met bi-monthly since 2005, with personnel in charge of procurement at overseas sites in attendance. At the meetings, information on worldwide suppliers is shared with the aim of achieving objectives related to the quality, cost and delivery of materials.

Training in the Subcontract Act

Raising employee awareness of the Subcontract Act to improve their knowledge

ULVAC occasionally provides training on the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors (Subcontract Act), mainly to employees in charge of contacting with suppliers, to raise awareness of the importance of complying with the Act.

Global Procurement Committee

Developing sound relationships by sharing information

ULVAC has held an Operations Briefing Meeting with major suppliers each year to report on business outcomes and explain future business plans and strategies.

In addition, a Mutual Prosperity Meeting is held every quarter to offer information on forecasts to major suppliers based on production plans. Suppliers who have made significant contributions in the areas of quality, delivery timeframes, cost and production technologies are awarded the Most Outstanding QDC Award and Manufacturing Engineering Contribution Award.

Electronic procurement system

Achieving short delivery timeframes by expediting material procurement

ULVAC began using Web-EDI (UL-EDI) for procurement in 2005. Time is becoming a more important factor for business, both in terms of lead time and operational efficiency. ULVAC has helped save time both for our suppliers and for us by exchanging data electronically. In addition, procurement data is provided and made available for real-time confirmation of our transactions, as well as for the accumulation and analysis of past procurement data. As can be seen, our system has also helped to plan and propose future business activities.

Green procurement

All parts are examined for specified hazardous substances

In the design phase, ULVAC has promoted Green Procurement, or the procurement of more environmentally friendly materials. In 2003, we developed the ULVAC Group Green Procurement Standard and the List of Surveyed Chemical Substances under Voluntary Control for Green Procurement. We have set our own targets incorporating laws and regulations (such as WEEE and the RoHS Directive), and we take the environment into consideration when conducting procurement.

Authorized Exporter

ULVAC obtained certification as an Authorized Exporter in June 2008 from Yokohama Customs based on the Authorized Exporters’ Program. The Authorized Exporters’ Program aims to speed up logistics procedures at a time of enhanced security measures and the growth of international logistics. The program recognizes exporters that have displayed outstanding compliance as Authorized Exporters, and allows prompt customs clearance for export by simplifying customs examinations. As an Authorized Exporter, ULVAC will continue to bolster compliance and promote trade management that complies with laws and regulations.
Expanding the Scope of IR Activities

ULVAC is committed to the prompt disclosure of its corporate activities and financial information, through its earnings updates and announcements as well as annual reports and the company website. We also take every opportunity to communicate with our shareholders and investors by organizing tours through our plants and briefings for personal investors.

Disclosing information actively
Communication activities in the 5th year since our IPO

ULVAC discloses key business information such as closed accounts and business outcomes on its website at the time the announcements are made. We revamped our IR information page in November 2006, to offer an even broader range of information to our shareholders and investors, including a message from the President and the latest information for personal investors, as well as financial data. In May 2008, ULVAC received the Outstanding Internet IR Website Award 2008 from Daiwa Investor Relations Co., Ltd. We publish the ULVAC REPORT halfway through each term for our shareholders to enhance understanding of those of our businesses not covered in the business reports. Moreover, an English version of the Annual Report is published once each year to provide a detailed description of account information, business strategies and growth strategies. Through these endeavors, we are committed to providing detailed information to our overseas shareholders and investors.

Communicating with our shareholders and investors
Strengthening the management of our business

The Annual General Shareholders’ Meeting is a rare opportunity for ULVAC management to communicate directly with shareholders. At these meetings, we seek to listen carefully to as many shareholder questions and opinions as possible, and then use them as feedback for management. ULVAC has held informal discussion gatherings after the meetings to encourage open communication, and our shareholders have used these gatherings to provide candid opinions and advice. In addition to the informal gatherings, we have introduced a number of initiatives to facilitate understanding of our business, such as organizing a guided tour through Chigasaki Plant, exhibiting some of the final products that are made using our own products, and providing information on the IR activities conducted during the year. Each time we close our accounts, we have promptly held a briefing for analysts and institutional investors, at which the president has explained the financial results. The materials used at the briefings can be viewed on our website, along with video footage. For the term ending June 2008, we held a financial results briefing, interim financial results briefing and guided tour through the Chigasaki Plant, in addition to a presentation on ULVAC’s latest technologies. These events were planned to provide an even greater understanding of our long-term growth strategies. In addition, we took part in several conferences for investors that focused on the topic of solar cells. We also held occasional company briefings for personal investors, and sought to set up opportunities to communicate directly with them by participating in fairs aimed at personal investors.

We also responded proactively to television, magazines and other media to further our public relations activities.

Dividend policy
Maximizing the return of profits to shareholders

ULVAC understands the importance of returning profit to its shareholders, and views the consolidated dividend payout ratio as the key index. Giving full consideration to consolidated business outcomes and financial structure strengthening, we link dividends with business outcomes. Our policy is to maintain a dividend payout ratio of about 20% with respect to the consolidated net earnings for the term. We plan to invest the retained earnings in the development of next-generation technologies and future business expansion to improve corporate value.

ULVAC IR policy
Accurate and transparent information disclosure

Disclosure standards
ULVAC has made disclosures pursuant to the Financial Instruments and Exchange Law and rules stipulated by security exchanges concerning the timely disclosure of corporate information by issuers of listed securities. (hereinafter, the ‘Timely Disclosure Rules’) laid down by the Tokyo Stock Exchange. To respond to our investors’ requests, ULVAC also maintains a policy of disclosing as much information as possible in a reasonable manner, even if it is not stipulated in the Timely Disclosure Rules.

Information disclosure methods
When disclosing information stipulated in the Timely Disclosure Rules, we publish the information via the Timely Disclosure network (TDnet) of the Tokyo Stock Exchange pursuant to the Regulations, after providing clarification. We also endeavor to promptly post the information disclosed on TDnet to our website. When disclosing information not stipulated in the Timely Disclosure Rules, we keep the timely disclosure approach in mind and ensure that the information is conveyed to general investors using an appropriate method, and in a way that is accurate and reasonable.

Provision of information on future scenarios
ULVAC sometimes provides information on future scenarios in addition to the forecast profits indicated in settlement updates. Plans, future scenarios, outlooks, strategies and other information are sometimes provided to the media, at briefings, in materials, at receptions, at lectures, and at Q&A sessions, in documents issued by ULVAC, on our website or by other means. In all cases, any information other than historical facts is a future scenario created based on certain assumptions at the time it was prepared, and reflects the assessment of ULVAC executives derived from available information. The actual business outcomes and corporate value of ULVAC could differ greatly from published scenarios for a number of reasons. The vital and main factors that influence actual business outcomes include, but are not limited to, the following: (1) Changes in the economic situation, demand trends and other factors that influence ULVAC; (2) Changes in foreign exchange rates, interest rates and other aspects; and (3) Our ability to engage in design, development, manufacture and sales in a timely manner amidst significant and rapid technological innovation and amidst continuous new product launches in the electronics sector.

Silent period following book closing
To prevent the unauthorized disclosure of settlement information and to ensure fairness, ULVAC has established the period from the day following its book closing to the date of the announcement as a silent period. During this period, we refrain from responding to questions or making comments about settlement. However, if circumstances arise during the period to suggest that the forecast outcomes are likely to deviate significantly from the actual figures, we will disclose the information pursuant to the relevant disclosure regulations.
Business Report for the 104th Term

The ULVAC Group has made proactive investments in the development of new technologies and products in order to launch unique and innovative products onto the market ahead of competitors and achieve our post-FPD strategies.

Business Results

In the fiscal year under review, the Japanese economy began to slow as consumer spending continued to show no sign of recovery, amid high oil and other prices and slackened income. Internationally, the U.S. economy increasingly slowed, on the back of financial concern triggered by the subprime mortgage loan problem and overall price hikes owing mainly to rise in resource prices. In Asia, including China, the economy remained steady thanks to expanded demand, but concerns arose over economic growth chiefly because of the deteriorated export environment.

Under such circumstances, in the FPD (flat panel display) industry with which the ULVAC Group’s main customers are involved, Taiwan and South Korea in particular postponed or froze their capital expenditure plans. However, an inventory adjustment of PFDs ran its course, capital expenditure in panels picked up. Manufacturers in the semiconductor industry made active investments primarily in flash memory-related fields. However, the market entered an adjustment phase, as evidenced by factors such as a decrease in memory prices caused by a bad supply-demand balance of semiconductors. Thus, uncertainty over the outlook for the semiconductor industry became clear. In the energy and environment-related industries, with public awareness of the environment increasing, companies strove to reduce CO₂ emissions, which are considered to be a main cause of global warming. Against this backdrop, demand grew for new energy devices such as solar cells and light-emitting diodes (LEDs), as well as hybrid car-related devices. Among others, the market for solar cells, which are drawing attention as a clean energy source, expanded rapidly.

To prevail in this operating environment, the ULVAC Group has been launching unique products onto the market ahead of its competitors and pursuing sales expansion by promoting ULVAC Solutions. The ULVAC Group invested not only in growth regions, such as China, South Korea, and Taiwan, but also in the domestic market, with our eyes on the post-FPD strategy. We also aggressively invested in the development of new technologies and products to implement the post-FPD strategy. Furthermore, amid sustained requests from customers for price reductions, as well as price hikes of raw materials, we pushed ahead with the innovation of production, vertical integration of related departments within our group companies, and cost reduction by enhancing in-house manufacturing. We also proceeded with fixed cost reductions by continuously trimming our operating expenses.

Consequently, for the consolidated performance during the term under review, orders received increased by ¥56,341 million to ¥293,110 million (up 23.8% year-on-year) and net sales rose by ¥2,061 million to ¥241,212 million (up 0.9%). For the consolidated profit and loss, operating profit decreased by ¥7,345 million to ¥9,091 million (down 45.4% year-on-year), and ordinary profit dropped by ¥11,029 million to ¥5,075 million (down 68.5%). Net income was down ¥3,725 million to ¥3,610 million (down 50.8%).

Operating results of the ULVAC Group by business segment are as follows:

Vacuum-related businesses

Results of the vacuum-related business by market segment are as follows:

Display and electronic device production equipment

In the display and electronic device production equipment business, centering on the Asian region, sales continued to be strong in the SMD series of multi-chamber sputtering equipment for small and medium-size LCDs and large LCD TVs; the same was true for the SDP series of in-line sputtering equipment. Looking at electronic device production equipment, sales remained robust for the SRI series of sputtering equipment for power semiconductors used in hybrid cars. Orders received improved sharply thanks to active capital expenditure plans for large LCD TVs. In addition, orders for and inquiries about an integrated production line of TFSCs increased substantially, centering on the Asian region, where capital expenditure plans for solar cells increased remarkably.

Semiconductor production equipment

Semiconductor production equipment saw strong capital expenditure in memories, including flash memories and DRAMs used in cellular phones, portable music players, and digital cameras, in the product areas related to digital home appliances during the first half of the term under review. In the latter half, however, some capital expenditure plans were postponed owing to the adjustment of the supply-demand balance for semiconductors. Despite such circumstances, the ENTRON™-EX series of sputtering equipment with improved reliability and productivity, and the RISE series of batch-type native oxide removal equipment, enjoyed healthy orders received and sales, particularly in Asia. In addition, orders received and sales of new equipment for energy-related devices, such as an LED etching system, grew with improved productivity.

Others

We aggressively promoted sales expansion activities for general industry machinery, launching new products onto the market. Sales were strong for the FHB series of vacuum heat treatment furnaces, the FMI series of vacuum melting furnaces and vacuum evaporating systems, and the DF series of vacuum freeze-drying equipment for medicines. Overall, however, the section of others continued to be hardly affected chiefly by the postponement of capital expenditure plans.

As a result, the vacuum-related business saw orders received of ¥252,019 million, outstanding orders of ¥162,548 million and net sales of ¥200,461 million. Operating profit was ¥8,377 million.

Other business

With respect to the other business segment, the entire ULVAC Group proactively conducted sales expansion activities while leveraging ULVAC Solutions. However, the ULVAC Group failed to achieve the originally planned orders received and sales of sputtering materials for LCDs in the materials business. The control-related business as a whole remained sluggish, hurt mainly by the postponement of capital expenditure plans, despite steady orders received for control systems in the metal and automotive industries. In the analyzer-related business, orders received and sales of the PHIS5000 VersaProBE™, an x-ray photoelectron spectrometer, were robust, particularly in Europe and the U.S.

As a result, orders received for other businesses were ¥41,091 million, while outstanding orders stood at ¥8,495 million, and net sales were ¥40,752 million. Meanwhile, this segment posted an operating loss of ¥1,355 million primarily because cost reductions failed to offset the decreases in sales and sales prices in the materials business.
Creating a Comfortable Work Environment

It is crucial for the growth of our company that all employees enjoy their work while showing their individuality and maximizing their abilities. ULVAC believes the key lies in an open and dynamic organization. We offer a number of measures for organizational development and take a consistent approach to human resources for everyone from new recruits to board members.

Developing an open and dynamic organization

Corporate culture that facilitates the creation of new technologies

It is a historical fact that technological innovation takes place in open and dynamic organizations. With the belief that everyone is equal before the truth, ULVAC has developed an organization where even new recruits are free to generate ideas and speak out, regardless of title or hierarchy, to help create new technologies.

ULVAC human resources policies

Respecting a challenging attitude that is not afraid of making mistakes, with the seniority system and lifetime employment as the foundation

ULVAC’s human resources policy is based on Japanese employment customs of the seniority system and lifetime employment, rather than the achievement-oriented system of the West. At ULVAC, where cutting-edge technologies are handled on a daily basis, failures occur significantly more often than successes. As an enterprise, we need to prevent employees from losing their desire to try new things through fear of making mistakes. When employees are confident that their salary will not be lowered or that they will not be fired even if they make a few mistakes, they can take risks when tackling major challenges in their work. Nevertheless, we also need to distinguish between what needs to be changed and what should be maintained, given the state of society. The ULVAC personnel system is not entirely based on seniority, and we have promoted capable people to important positions by selection, irrespective of their age. Rather than letting employees compete against each other internally through an achievement-oriented system, we believe that the power to beat our competitors comes from the teamwork that unifies the company.

Fair salary system

Established a simple and fair salary system

ULVAC has established a simple salary system that categorizes employees into three tiers, namely the executive, management and general workers (the generic term for all roles below management level), regardless of educational background, job category or gender. With a system based on seniority, combined with a policy that differentiates among employees by age, role and qualifications, all employees are offered equal opportunities to take tests for promotion, except those who are appointed as executives. Care has also been taken not to make salary differences too great each year during the personnel appraisal process, to avoid excessive internal competition.

Basic Policy for Employee Development

In recognition of the fact that the most important resources for the company’s energy and competitiveness are its employees and the organization that harnesses their talents effectively, we seek to base employee development on our corporate philosophy and basic policy:
1. Employees capable of taking part in developing and making the most of cutting-edge technologies
2. Employees capable of working with fellow associates for creating the world’s top-ranking technologies and expertise
3. Employees capable of thinking and acting on their own to achieve objectives

Developing outstanding employees

Assessing the capabilities of each employee to develop employees based on the education plan

Internal seminars

The Research and Development topics change every year. To remain flexible and stay ahead of the changing times, it is important for our employees to readily absorb knowledge that has not yet been published in textbooks. ULVAC offers internal seminars to all employees, at which leaders in the field present lectures that would usually only be available to core development personnel. Senior management regularly participate in these lectures and often start discussions that many employees find stimulating.

Seminars for employees at each level of the hierarchy

Commencing with seminars for new recruits, employees participate in seminar camps at each of the following stages:
- in the second year of employment; when they have qualified for leadership positions; prior to being appointed as managers; and on being promoted to the role of manager or executive. These seminars are intended to provide opportunities for employees to gain skills related to the knowledge and ways of thinking required at each stage.

Executives and corporate advisors serve as lecturers at these seminars, rather than inviting outside lecturers. The seminars are unique as lecturers prepare and implement their own curriculum.

Strategy study meetings

Different topics are discussed at each strategy study meeting, with participation by the Chairman, President, other members of the Board and all related management personnel.

Participants discuss one topic in depth under the condition that they can leave their own circumstances on the side; they can forget their job titles, and they do not need to reach a conclusion. Participants attempt to resolve issues not only within vertically divided organizations but across the borders of divisions. Through this experience, they acquire strategic modes of thought that encompass multiple viewpoints.

Essential basic education

Even though ULVAC is a company that develops cutting-edge technologies, we need to ensure that we learn the basics before displaying our uniqueness.

Through the essential basic education, engineers acquire fundamental knowledge of the vacuum, which is the core of ULVAC technologies. Clerical and sales personnel learn all types of skills including accounting, finance and labor management, as they work in various divisions on a rotational basis.

The basic course is mandatory for younger employees, and a wide variety of employees are given the opportunity to participate, including those who wish to refresh their knowledge of basic matters and those wishing to learn about different lines of work.
Respecting Workforce Diversity

ULVAC aims to develop a workplace where employees can work in a variety of styles with a sense of security and comfort. By establishing systems that suit different phases of life, we support our employees by boosting job satisfaction and helping them remain motivated.

A diverse range of employees

Employment of a diverse range of employees to prepare for the decline in the working age population

Japan is a rapidly aging society with a falling birthrate, and the decline in the working age population is becoming a major issue. At ULVAC, we employ a diverse workforce who all utilize their capabilities to the fullest, including women, people of foreign nationality, elderly people and disabled people.

Employing elderly people

In 1995, ULVAC established ULVAC Elder, Ltd. to re-employ retired personnel. Elderly people convey their knowledge of advanced technologies, skills and expertise, and take part in enhancing the company’s competitiveness by supporting younger and middle-tier employees. This has helped elderly people enjoy a renewed purpose in life as well as an income.

Employing disabled people

In FY2007 we formulated the Employment Plan for Disabled People, and began employing significant numbers of employees with disabilities. Although steady progress was made with regard to the plan for FY2007, we will continue to expand our employment of disabled workers.

We have also redesigned our internal facilities so that disabled people who join our Company are not inconvenienced in the workplace, in addition to offering counseling services. Instead of just trying to achieve numerical targets, we have developed an environment where it is easy for anyone to work.

Motivated by the ties between China and Japan

Mika Matsumoto Components Division

I am currently on parental leave to care for our second child. This is the second time I have taken parental leave, and I plan to remain on a leave until our child turns one, as I did last time.

It is very difficult to work while raising children. No matter how busy I am at work, I have to leave the office so I can pick up my children from the nursery in time. After I get home, all my work is taken up with caring for them. But I have learned to shift gears emotionally, and these days I feel less worried and stressed about work than I did before I had the children. I am grateful that I have been able to do the same work as before because of my colleagues’ understanding and cooperation. Because time is limited, I always think about the most important thing that needs to be done, and I work more efficiently as a result.

Xiaoyu Ding Components Division

In 2004, I came to Japan from China to learn about the source of its advanced technologies and the diligence of the people. I studied business administration in Japan, and came across ULVAC when I was searching for a company that advocates diverse values irrespective of nationality, and possesses unique technologies.

After joining ULVAC, I was assigned to a management division, where I work on controlling each manufacturing process so that products can be shipped for delivery as scheduled. A wide range of knowledge about vacuum technologies is required, and manufacturing processes can be influenced by the way in which instructions are given. The manufacturing of this product is in charge of a supervisor. It has been difficult to convey information to the contract manufacturers, and there was a long period of trial and error. I was lucky to work with nice managers and senior employees, so I gradually gained confidence and now feel happy to take on important responsibilities even though I am a relatively new recruit.

I am hoping that sometime in the future I will become involved in doing business with China, and will keep working hard while maintaining a positive attitude.

Providing mental health care

The Health Promotion Office has been established to support employees in terms of both physical and mental health

To ensure that the people working for ULVAC maintain both physical and mental health, we have introduced a health management system that also takes mental health care into account.

The Health Promotion Office has been established as a place for employees to come and discuss any physical or mental health problems they may have, and an occupational physician and nurse deal with them on an individual basis. We have also signed consultation services provided outside of the company.

We began increasing the employment in the June 2006 term, based on the mid- to long-term plan. The ratio of male workers as a percentage of ULVAC’s regular employees is high, because of the preponderance of engineering work in high.
Systems for Product Safety and Occupational Safety and Health

The ULVAC Group maintains ‘Safety First’ as a corporate philosophy for its business operations, and conducts operations with the aim of securing safety in both our work environment and in products and services for our customers. We have incorporated the idea of risk assessment to create the ideal environment.

Safety measures pursuant to the Product Safety System Provision

Pursuant to the Product Safety System Provision set out in ISO9001, the ULVAC Group endeavors to ensure the safety and health of all employees and customers who use ULVAC products and services. The Product Safety System Provision stipulates compliance with the establishment of a Global Safety Committee for discussion and inspection of employees’ occupational safety, and a Global Product Safety Committee for discussion and inspection of product safety. These Committees meet quarterly and consist of the President of each ULVAC Group company and the following members from ULVAC: the President, the Chairman, the general managers of each division, the general managers of research and development division and the Corporate Safety & Health Department.

Basic Policy for ULVAC Occupational Safety and Health Management System

Pursuant to the Occupational Safety and Health Management System announced publicly by the Ministry of Labor, Health and Welfare, the ULVAC Group has established the Basic Policy for ULVAC Occupational Safety and Health Management System.

Product and labor accidents

Taking preventative measures against accidents and disasters

The number of product accidents has declined continuously since 2002, and the number of incidents as of June 2008 declined to about 40% compared to 2002. To prevent a recurrence of electrical wire and component burnouts, causes have been identified and evaluation tests conducted. Important information related to product safety is announced promptly to customers by distributing Customer Support Information.

No serious labor accidents occurred in FY2007, and the number of accidents declined compared to the previous year. To prevent potential risks from surfacing in our plants, we will continue to take actions such as safety patrols by safety officers, call-out confirmation, revisions of high place operation manuals that accompany the growth in size of substantial equipment, and risk assessment when handling chemical substances.

Safety education and training

Conducting specialized safety training for each product, and performing a range of training necessary for site work

The ULVAC Group conducts basic safety training once a year for all ULVAC employees and workers of cooperative companies. In addition, we offer comprehensive training as set out in the Labor Safety and Health Law, including specialized safety training for each product, service safety training necessary for site work, and safety trainer education. All new recruits participate in exercises to be aware of potential dangers at plant worksites through experiencing operations. Accidents involving new employees can be prevented through this experience.

Training for wearing gas masks  Training for working in high places

Installing AED and Promoting Emergency Aid Training

All ULVAC’s plants and major branches are equipped with AED, and emergency aid training is carried out to prepare for a medical crisis. An ULVAC employee serves as the President of the Emergency Aid Activities Promotion Association in Chigasaki to participate in the AED promotion activities.

Fire Drills using a Fire Ladder Truck

Fire drills are conducted at ULVAC every year. Considering the increase in the number of multistory buildings and factories, we have also conducted an evacuation drill with the help of the Chigasaki City Fire Department using a fire ladder truck, expecting that people may need to evacuate from the upper floors.
The ULVAC Group recognizes that environmental conservation is one of the most critical challenges facing humanity. The ULVAC Group operates with respect for the environment and offers environmentally friendly products to encourage sustainable growth and development.

Environmental Initiatives of the ULVAC Group

The ULVAC Group pursued environmental conservation through cooperation within the ULVAC Group. Each ULVAC Group company has established environmental policies based on its environmental philosophy, and practices environmental management.

The ULVAC Group recognizes that environmental conservation is one of the highest-priority challenges facing humanity, the ULVAC Group has committed itself to the conservation of the Earth's natural environment and is making contributions toward society's environmentally sustainable growth and development in all business activities.

ULVAC Group environmental management

Pursuit of environmental conservation through cooperation within the ULVAC Group

Each ULVAC Group company has established environmental policies based on its environmental philosophy, and practices environmental management.

The ULVAC Group considers the environmental management system as one of the highest-priority challenges facing humanity, the ULVAC Group has committed itself to the conservation of the Earth's natural environment and is making contributions toward society's environmentally sustainable growth and development in all business activities.

Environmental policy

To provide products that help save energy and resources, and to protect the environment

ULVAC developed its environmental policy in July 2002. In the policy, ULVAC refers to a focus on preserving the global environment, and to developing, manufacturing and selling products with energy, resource and environmental conservation at the forefront of its thinking. ULVAC has integrated its unique and innovative technologies to develop, produce and market environmentally friendly products such as solar cell manufacturing equipment. In addition, ULVAC strictly manages chemical substances, mainly through the total abolition hazardous substances prohibited by RAIIIS Directive.

Environmental inspection and education

Promoters

ISO14001 Secretariat

ISO14001 Secretariat is an important role in the Environmental Management System. It is responsible for tracking the progress of ISO14001 certification acquisition by the ULVAC Group.

To promote energy-saving, resource-saving and environmental protection in products (equipment and components).

For energy conservation and recycling, we have focused particularly on the more efficient use and recovery of target materials in manufacturing processes.

To provide products that help save energy and resources, and to protect the environment

Passionately advocating the conservation of the environment

Hiroaki Yamakawa

Senior Manager, Director and Environmental Management Representative

It was proposed at the Toyoaka Summit in 2000 to halve global CO2 emissions by 2050. The ULVAC Group has reduced its CO2 emissions by making its manufacturing processes more efficient. In addition, we have helped create products that can make a significant contribution to cuts in global CO2 emissions, such as an integrated production line for TFSCs and manufacturing equipment for hybrid car devices.

For energy conservation and recycling, we have focused particularly on the more efficient use and recovery of target materials in manufacturing processes. At Wakayama Plant, the production of manufacturing equipment for hybrid car devices.

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Environmental Management System

The ULVAC Group considers the environmental management system as one of its key management tools. Starting with the 1999 acquisition by a domestic Group company of ISO14001 certification for the international standards of environmental management systems, the entire Group, including its overseas affiliates, practices active environmental management.

ULVAC Group environmental management organization

Enhancing environmental management improvement activities

The ULVAC Group considers the environmental management system (EMS) based on ISO14001 as one of the key management tools for achieving environmentally conscious products and business activities with low environmental load. All of the environmental aspects of our business activities are identified, and improvement activities are continuously conducted based on the PDCA cycle. ISO14001 certification acquisition procedures are underway for the entire Group, including overseas affiliates. This commenced when a domestic Group company obtained certification in 1999.

ULVAC added Aichi Plant to the scope of its ISO14001 certification in January 2008. Among our overseas Group companies, two companies in Taiwan have recently acquired ISO14001 certification. As a result, 16 domestic and 14 overseas Group companies had obtained ISO14001 certification as of the end of June 2008.

The ULVAC Group holds an Environmental Information Committee each quarter to introduce new facilities that could have influence on the environment, and to enable the prompt reporting and sharing of environmental nonconformity and small incidents that could have led to a serious disaster or accident. Through these efforts, we have strengthened our risk management with regard to the environment.

Environmental inspection and education

Organized systems for environmental inspection and education to enhance internal awareness

Since July 2007, the ULVAC Group has appointed environmental inspectors at its key domestic and overseas facilities, and at sites with high environmental load. Today, a total of 35 environmental inspectors are on duty in Japan and abroad. In addition, ULVAC has taken on a leading role in mutual and periodic inspections of the operational status of the environmental facilities of each Group company, and for the prompt detection and reduction of risks. These activities aim to prevent incidents and to enable continuous improvements.

ULVAC considers environmental education indispensable. All employees are required to attend the Environmental Awareness Education offered during the first three months of each fiscal year starting in July, to become aware of key issues.

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ULVAC has set activity targets each year under its environmental policy, and has approached the activities from both long-term and short-term viewpoints. In an effort to achieve the targets, at the senior management review conducted every quarter, we confirm the progress and revize the targets and activities.

**Environmental Conscious Facilities**

At the Material Business Group of ULVAC, Inc., we manufacture indium tin oxide (ITO) target which is transparent and conductive coating material for FPDs. The full manufacturing process is conducted at our plant, from mining the source materials indium oxide and tin oxide to bonding.

Indium is a rare metal, so we recover all waste that contains indium. Conventionally, indium was recycled by recovering the material powder, the slurry as well as the waste used to wash the grinding sludge generated in machining, and reforming the moisture content with a drier.

To improve the efficiency of a more meaningful recycling, an ITO powder recovery equipment was developed through repeated studies into whether liquid waste can be recovered through a pipeline from all workstations in the plant that handle indium, and whether the work can be rationalized without affecting the environment.

The ITO powder recovery equipment installed at our new plant eliminates the need for workers to recover indium manually by hand, and prevents the powder from accidentally being discharged outside the plant.

In FY2007, the ULVAC Group manufactured products that conform to the RoHS Directive. As a result, we have achieved conformity with the RoHS Directive for around 96% of parts. We complied with the RoHS Directive. As a result, we have achieved conformity with the RoHS Directive for around 96% of parts.

The new effluent treatment facility was upgraded to the point where the output of waste water was reduced by 10% from the preceding fiscal year. Along with completion of the new effluent treatment facility in October 2008, we will keep abreast of the effluent situation across the entire line, and will reduce the environmental load as well as treatment costs to achieve stable operation and reduction of excess sludge.

The following initiatives have been taken: (1) installation of liquid guard plate; (2) installation of discharge tank, (3) enhancement of neutralization capacity, (4) installation of suspended solids (SS) removal device, and (5) automatization of chemical preparation.

**New effluent treatment facility**

**For Global Environment**

**Targets and Results**

ULVAC has seven activity targets each year under its environmental policy, and has approached the activities from both long-term and short-term viewpoints. In an effort to achieve the targets, at the senior management review conducted every quarter, we confirm the progress and revise the targets and activities.

### Targets and Results

#### ULVAC environmental activity targets and results for FY2007

**Seven activity targets to reduce environmental load**

ULVAC has carried out environmental activities geared toward seven activity targets.

- **To promote energy-saving**
- **To develop equipment with a higher energy conservation ratio than our previous products**
- **To develop processes and equipment that can reduce the environmental burden imposed by our business activities**
- **To establish the facility design standards and renewal plans from the perspectives of environmental conservation, safety assurance, and compliance with laws.**
- **To strengthen the level of risk management, untreated water tanks and environmental protection in manufacturing processes.**
- **To ensure energy efficiency and productivity of resources.**
- **To protect the environment and contribute to environmental protection in products (equipment and components).**

**Environmental targets and results for FY2007**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Environmental policy</th>
<th>Actions</th>
<th>ULVAC activity targets</th>
<th>Results of environmental activities in FY2007</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>To promote energy-saving, resource-saving, and environmental protection in manufacturing processes.</td>
<td>Distribution of environmentally friendly products</td>
<td>To recover indium and tin for hybrid cars. We have also sold used equipment that is still fully functional in an effort to reduce waste and utilize resources effectively.</td>
<td>In FY2007, the ULVAC Group manufactured products that complied with the RoHS Directive. As a result, we have achieved conformity with the RoHS Directive for around 96% of parts. We will continue working to completely eliminate the substances designated in the RoHS Directive.</td>
<td>With regard to waste management, we have also reduced the environmental burden imposed by our business activities. We set a target of attaining a recycling ratio of 97% or more in FY2007, in addition to achieving zero emissions as in the previous fiscal year. However, the target was not achieved because of an increase in the volume of waste that cannot be recycled. We will resolve this issue in this area in FY2008 to increase the recycling ratio.</td>
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Chemical Substances Management

The ULVAC Group has managed diverse chemical substances used in the research, development, and manufacturing processes of products, parts, and materials, and has sought to comprehensively reduce risk. We have also achieved safe procurement and sales in line with the green procurement standards of customers and the ULVAC Group.

Comprehensive management of chemical substances through the Chemical Substances Management Committee

ULVAC has established the Chemical Substances Management Committee, consisting of the chemical substances manager of each division and the research divisions. We have carefully managed the chemical substances used in our manufacturing processes to prevent environmental pollution (both local and global), detrimental effects to employees, and disasters and accidents.

We established new Risk Assessment Manuals in FY2007 for the qualitative assessment of risks and the detrimental effects of business activities that involve chemical substances, and for studying and adopting reduction action to suit risk levels. We will continue managing chemical substances properly to minimize risks.

Comprehensive abolition of hazardous substances

Environmental activities geared toward the complete abolition of the substances designated in the RoHS Directive

The ULVAC Group has taken steps to completely abolish the six designated substances (cadmium, hexavalent chromium, mercury, lead, PBBS (polychlorinated biphenyls) and PBDE (polychlorinated dibenzyl ethers)) to make its business activities compliant with the RoHS Directive enacted in Europe in July 2006.

Since the RoHS Directive is intended for general home appliances, it does not apply to most of the products manufactured by the ULVAC Group. However, we have voluntarily taken steps to make our products compliant with the Directive.

As of June 30, 2008, the ratio of parts that comply with the RoHS Directive reached about 96% of all the parts used by ULVAC. We will continue taking steps toward abolition through the following two policies:

- Procuring parts that comply with the RoHS Directive
- Developing alternative parts for those that are non-compliant, if there are no substitute products available

The ULVAC Group has also taken action to make those of our products sold in China compliant with the Administration on the Control of Pollution Caused by Electronic Information Products (China RoHS), in response to the introduction of the Directive in July 2008.

By June 2008, the ratio of parts that comply with the Directive reached more than 90% of the parts used in China. We will continue making efforts to further reduce the consumption of hazardous substances.

Complete abolition of hazardous substances

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Recycling measures and appropriate waste management

Treating waste properly to enhance the recycling ratio

The ULVAC Group has undertaken appropriate waste management and reduction activities across the entire Group, aiming to reduce the volume of waste and the landfill ratio.

To manage waste properly and fulfill its responsibilities as a generator of waste, each Group company has regularly visits subcontractors’ waste treatment facilities to confirm that waste is being properly managed and not dumped illegally. At the same time, we have been examining the introduction of an electronic manifest system to further increase the efficiency of waste management.

ULVAC defines zero emissions as keeping the volume of landfill waste below 5% of the total waste generated, and encouraging recycling. The landfill ratio of ULVAC as of June 2008 was 3.8%, which means we also achieved zero emissions this term. Although we aimed for a more demanding recycling ratio of 97% in FY2007, we were not able to achieve this. The Group will continue making efforts to further reduce the landfill ratio (Recycling ratio = 100 – landfill ratio).

The volume of waste generated increased from last year in line with business expansion. At Chigasaki Plant, the volume of waste acid, alkali and glass debris generated increased in line with the installation of the integrated production line for TFSCs. It became possible to recycle glass debris from this fiscal year, which led to an improvement in the recycling ratio.

The entire Group will continue its focus on comprehensive waste management by reducing the volume of waste generated, undertaking examinations for further recycling, and waste management risk reduction.

Waste Management

The ULVAC Group has actively taken steps to reduce and recycle waste. As a result, ULVAC achieved zero emission (zero landfill waste) this year. We have regularly visited waste treatment subcontractors for observation to reduce the risks arising from waste management.

In February 2008, we held a drill for emergency personnel that assumed effluent had leaked from our plant. The object of the drill was to acquire the skills necessary for recovery work and cleansing pollutants from victims’ bodies. Speed and accuracy are vital when dealing with environmental accidents. We will continue making efforts to acquire such skills to enhance the efficiency of recovery work.

For the Global Environment

- Procuring parts that comply with the RoHS Directive
- Implementing the REACH Regulations and thePFOS Regulations in Europe in June 2008, the management and regulation of chemicals used in our manufacturing processes to make its business activities compliant with the Directive.

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Conducting an emergency drill

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For the Global Environment

Composting is a way to remove pollutants from victims’ bodies. Efficiency and speed are vital when dealing with environmental accidents. The purpose of this drill was to acquire the skills necessary for recovery work and the speed at which we can carry out such work.

Scenes from the emergency drill

ULVAC, Inc.

ULVAC, Inc.

Breakdown of waste

Waste food 1% Acid and alkali 5%
Glass and ceramic 13% Shigge 5%
Plastic 14% Other 1%
Wood 15% Waste food 3%
Cardboard and paper trash 15% Glass and ceramic 2%
Metal 17%
Acid and alkali 4%

ULVAC, Inc.
Environmental Performance

The ULVAC Group operates with a commitment to reducing the burden on the environment and manufactures environmentally conscious products, using information on the impacts of its activities. Each of our facilities and Group companies manages and evaluates data that is used to guide its business activities.

CO2 emissions

Measuring CO2 emission as a first step to reducing them

In the course of its energy conservation activities, the ULVAC Group has taken steps to reduce energy-derived CO2 emissions.

In FY2007, ULVAC’s CO2 emissions increased by about 10% from the previous year in terms of emissions per sales unit compared to FY2003. For the entire ULVAC Group, total emissions increased by 9% from the previous fiscal year. The major causes of the increase were the construction of new company buildings such as ULVAC Chigasaki Plant, as well as expanded development and manufacturing activities. However, a number of energy-conserving facilities have been introduced into these new buildings, thereby reducing the increase. Growth in energy consumption is anticipated in FY2008, given the construction of new company buildings and business expansion/diversification. On the other hand, the first period for fulfilling the Kyoto Protocol agreement starts this year, and society is likely to demand that businesses make even greater efforts to reduce CO2 emissions. As a result, the ULVAC Group is committed to making further cuts.

Water quality management

Conserving the environment by managing drainage at each of our sites

The ULVAC Group owns production and development sites and research institutes in many locations. At these sites, effluent is managed in compliance with applicable laws. The standards required by the Water Pollution Control Law and bylaws were met during FY2007 at each of the sites. We will continue to improve the environmental condition of our business activities even further.

Air pollutant management

Undertaking stringent management based on numeric values obtained from atmospheric measurements

The ULVAC Group measures the air quality at each of its sites, and complies with the Air Pollution Control Law and bylaws. In FY2007, the statutory standards were met for both NOx and SOx at all sites. We will continue to help prevent environmental pollution by carrying out management based on numeric values.

PRTR substances

Reduced the use of PRTR designated substances by 36% from the previous year

The ULVAC Group has reduced the use of substances designated by the RoHS Directive, and other hazardous chemical substances.

In FY2007, ULVAC reduced the amount of PRTR substances used by 36% from the previous fiscal year. This is a result of switching the air conditioning system from a kerosene boiler to a high-efficiency chilled and heated water generator powered by city gas. We will continue our commitment to reducing the amount of chemical substances used.

Material balance

Preserving the global environment with strict organizational management

The ULVAC Group has reduced its environmental footprint by managing the use of electricity, water, chemical substances and other materials at each of its sites, and reducing CO2 emissions, effluent and waste generated as a result of its operations. In particular, we have used an Environmental Management Program to manage our progress towards reducing energy consumption and the volume of waste generated.

Environmental performance data for FY2007

Each of the ULVAC Group companies manages environmental performance data systematically.
section 6  With Local Communities

Corporate Citizenship Activities at Domestic Sites

The ULVAC Group operates in many regions, seeking to make a contribution to society as a good corporate citizen. We regard the ULVAC Festival and volunteer activities such as street clean-ups and social services as important opportunities to form close ties with people from local communities, and to make our employees realize that they are also members of society.

The ULVAC Festival that strengthened ties with people from local communities

More than 6,000 people taking part

The ULVAC Festival was held on November 4, 2007 at Chigasaki Plant, with the theme ‘Sunny Autumn Festival — Conveying Our Gratitude’ —. The weather cleared up on the day, and more than 6,000 people visited the festival. The visitors enjoyed a performance by a brass band from the local junior high school, and activities for children, dishes by restaurants in the community, and special liquor and food offered by our Group companies in Kagoshima, Japan. The festival also provided a good opportunity for visitors to familiarize themselves with ULVAC, and many seemed to enjoy the tour of the plant and participating in experiments with vacuum technologies.

Guiding visitors through the plant at the ULVAC Festival

At the ULVAC Festival, I guided people from local communities through our plant and explained the equipment and products to them. As companies ranging from children to the elderly, and they asked me questions on a broad range of subjects. I felt that they had a great deal of interest in ULVAC. There were more questions than I had expected regarding technical issues, which as an engineer, I found refreshing and enjoyable. My parents also visited the ULVAC Festival, and they seem to have become more familiar with the company. I hope that this ULVAC Festival will continue to be held in the future as an opportunity to foster interaction with people from local communities.

Voice

Employee voices

Flat Panel Display Equipment Division 1
Keiko Abe

Services at nursing homes for the elderly

Our Group companies ULVAC KYUSHU CORPORATION, ULVAC SEIKI COMPANY, LIMITED and ULVAC Materials, Inc., located at Kagoshima Industrial Estates, conduct their own volunteer activities every year. Each year staff from ULVAC SEIKI COMPANY, LIMITED visit Ryokusen, a local nursing home for the elderly, and enjoy talking with the residents while carrying out helpful tasks such as cleaning windows and maintaining wheelchairs. Staff from these companies have also participated in clean-up activities in the streets and areas around neighborhood stations.

Opening facilities to the public

Strong interest in ULVAC’s environmental measures

On November 22, 2007, a nonprofit organization called Chigasaki Eco-Work visited ULVAC’s Chigasaki Plant. We took a total of 19 people, including 11 members of the public, to observe the integrated production line for solar cells and rooftop solar panels. A brief question and answer session was held regarding waste management, sludge treatment methods and other environmental measures. The plant tour showed us how much interest there is among stakeholders in the environmental measures taken by ULVAC. We hope that many more people will deepen their understanding of ULVAC businesses in the future.

Plant observation tour for people from the nonprofit organization

Visiting local junior high schools to give lectures

Encouraging the future generations

ULVAC welcomes teachers from local schools to our business seminars, and dispatches employees to give lectures every year.

At a lecture given at a local junior high school, an employee of ULVAC, as a lecturer, described the profession of a scientific engineer. The lecturer provided the children with simple explanations on vacuums, which are the mainstay of ULVAC businesses, using a pump to create a vacuum. The children also learned how ULVAC’s vacuum technologies are used in the community, using samples of mobile phones and mini solar cars. We aim to assist with school education support activities, to help encourage the next generation.

Giving a lecture at school

Street clean-up activities carried out jointly with local government

Participating in Hachinohe Clean Partners and taking part in street clean-up activities

The ULVAC Group companies located in Hachinohe Kita Intersection Industrial Estates participate in Hachinohe Clean Partners, an environmental program run jointly by Hachinohe City (Aomori Prefecture, Japan) with its residents. On October 11, 2007, 26 staff from ULVAC Tohoku Inc., ULVAC Materials, Inc. and Nishin Seigyo volunteered to clean the areas around the company premises and along the national highway. Some people had to tackle piles of garbage along the four-kilometer path, and the volume of garbage collected filled 88 large garbage bags. The ULVAC Group plans to continue participating in street clean-up activities to beautify its town and promote the health of employees.

Participating in Hachinohe Clean Partners

Table for Two

Protecting children from starvation

ULVAC supports the goals of Table for Two, and has engaged in Table for Two activities at the employees’ cafeteria in Chigasaki Plant in conjunction with Aim Services Co., Ltd. The activities allow each of our employees to gain an awareness of starvation and their own health, providing an opportunity for social contribution. At Chigasaki Plant, the balanced meal served at lunch-time on Wednesdays is the target meal for the program. Table for Two (TFT) was founded in Japan to find a solution to these contradictory issues, and to promote healthy eating.

For each person who eats the low-calorie, healthy meal recommended by TFT, 20 yen is donated (the cost of one serving of a school lunch in countries where malnutrition is a serious problem).

Table for Two Overview

Even as many children die from starvation and malnutrition, there are also an increasing number of people who are affected by lifestyle-oriented diseases associated with excessive eating. Table for Two (TFT) was founded in Japan to find a solution to these contradictory issues, and to promote healthy eating.

For each person who eats the low-calorie, healthy meal recommended by TFT, 20 yen is donated (the cost of one serving of a school lunch in countries where malnutrition is a serious problem).

Table for Two Scheme

Cost

At table

Cost

School lunch

Meal for one child

ULVAC contribution

Table for Two

ULVAC supports the goals of Table for Two, and has engaged in Table for Two activities at the employees’ cafeteria in Chigasaki Plant in conjunction with Aim Services Co., Ltd. The activities allow each of our employees to gain an awareness of starvation and their own health, providing an opportunity for social contribution.
Social Contribution Activities in the Global Community

The ULVAC Group has established facilities in Asia, Europe and the Americas, and conducts activities on a global scale. The ULVAC Group companies in each region conduct activities that respect the local customs and culture, and have contributed to revitalizing the local communities. Here, activities by Group companies in South Korea are featured.

Interaction with local communities

~ Korean ULVAC Festival ~

All profits were donated to charity

In October 2007, the ULVAC Group companies located in South Korea held the ULVAC Festival. About 1,380 people took part in the festival, including employees and their families, and also people from partner companies. At Hyongok Plant of ULVAC Korea, Ltd. where the Festival was held, flea markets and food stalls lined up on site and performances were given on the stage. All profits obtained from the Festival were donated to Taean County Office for a charity that provides assistance following the oil disaster that took place in Taean in December. The ULVAC Group companies in Korea intend to continue holding ULVAC Festivals.

Making Gimjanggimchi

Contributing to local communities with traditional kimchi

Korean people prepare large quantities of kimchi before the winter arrives to last until the next spring (March). The kimchi is referred to as Gimjanggimchi. Preparing the traditional kimchi requires extensive labor and materials. People from ULVAC Korea, Ltd. joined forces with Social Welfare Organization In Songtan in November 2007 to prepare Gimjanggimchi, which was offered to orphans and elderly persons living alone.

ULVAC Korea, Ltd. will continue participating in volunteer activities to contribute to local communities.

Status of social responsibility investment (SRI)

FTSE4Good Global Index

ULVAC was selected for two consecutive years for inclusion in the FTSE4Good Global Index, which is a social responsibility investment (SRI) index established by the FTSE Group* that covers businesses from around the world.

*FTSE Group is an enterprise owned by the Financial Times and London Stock Exchange.