



**CSR Report** 2008  
Corporate Social Responsibility Report

# Message from the President



## CSR Structure Tamron Is Establishing Together with Stakeholders

To Tamron, 2007 was the year to establish our CSR management structure. Tamron defined CSR as contributing to the economy, society and environment by creating eyes for industry. We enacted an action declaration advocating our posture in working on realizing our CSR policy and action codes, clearly expressing the ideal stance all employees are to take in discharging their responsibilities. However, we are still in a nascent stage for actually implementing CSR management and 2008 will be our first year of full-fledged CSR management. To address this issue, we held a stakeholder dialogue in December 2007, to listen to opinions on our work so far and suggestions from our stakeholders for the future. While stakeholders acknowledged our work so far, they suggested further efforts for addressing environmental problems and contributing to society. At Tamron, we are committed to continuing our work to steadily promote CSR management, step-by-step, fulfilling the expectations of our stakeholders.

## Realizing CSR Management in the Primary Business

Pursuing CSR management in our primary business, we contribute to society through lenses. Photographic lenses create delight and excitement in our daily lives while becoming mirrors to reflect social and environmental problems. Lenses for surveillance cameras and built-in vehicle cameras contribute to realizing a safe society. Part of CSR management is supplying customers with quality products serving these market needs at low prices while focusing on social and environmental problems in our primary business. Tamron advocates giving clear priorities to employees in order to realize CSR management. We will only be able to develop and provide environmentally friendly products and services to our customers, investors, business partners and society if our employees are able to work at Tamron with pride. Each and every employee properly understands our CSR policy and action code, behaving in accordance with the policy and the code, is important. To realize these objectives, we will continue to work on enhancing employee satisfaction as well as CSR education so our CSR management spreads itself to each and every Tamron employee in 2008.

## For Ideal CSR Management

We at Tamron hope to ensure persistent company growth while enhancing our corporate value through promoting CSR management. Our goal is to make Tamron capable of using an amount equivalent to one percent of our annual group ordinary profit for CSR activities in five years from now.

In compiling this report, we changed the title to “CSR Report” and tried to improve communications with our stakeholders. We would greatly appreciate your opinions and suggestions for how we can further improve our CSR management.

A handwritten signature in black ink that reads "Morio Ono".

Morio Ono  
President & CEO  
Tamron Co., Ltd.

# Tamron's CSR Management

## Enhancing Corporate Value

Our corporate philosophy advocates contributing to society by supplying customers with optical products satisfying them and returning our business profits to society. To realize this policy, we have defined our **CSR Policy as Contributing to Economy, Society and Environment by Creating Eyes for Industry**, and are working to enhance the corporate value of our company

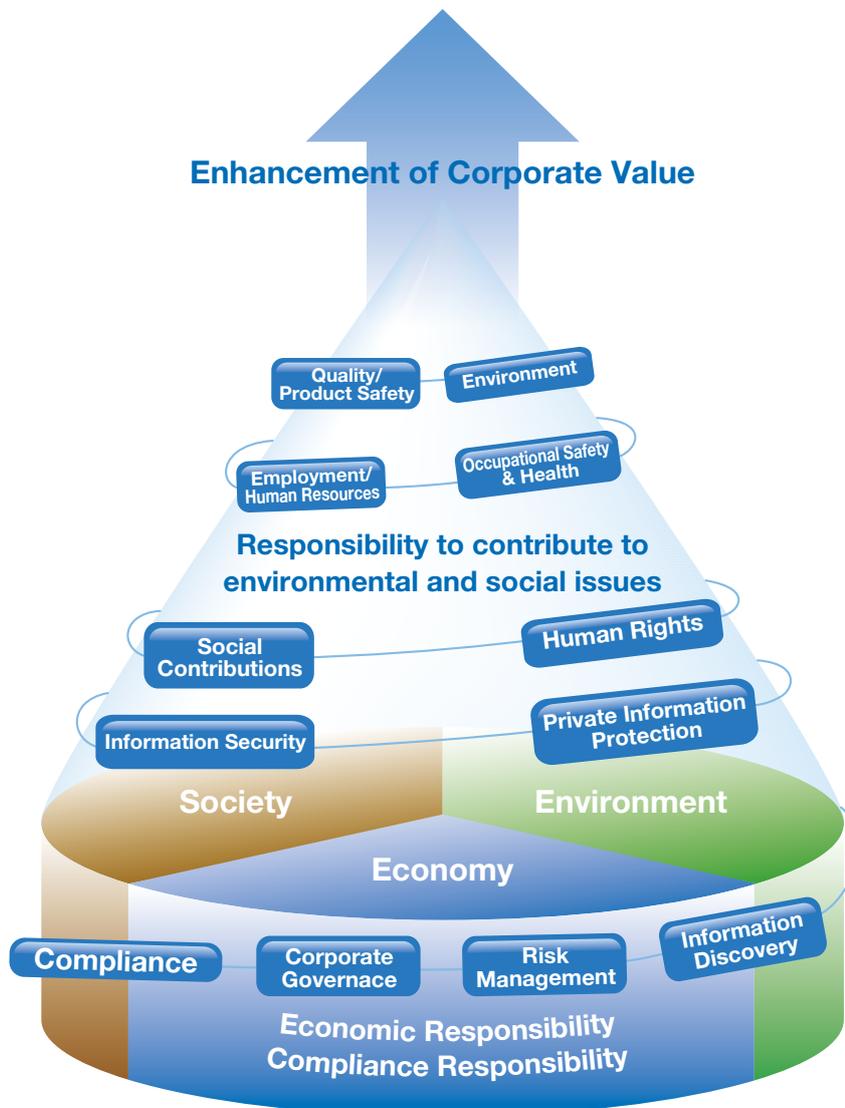
## Twelve Themes for Enhancing CSR Management

We have established twelve themes for being a company that stakeholders<sup>(1)</sup> acknowledge. Through addressing these themes, we are discharging compliance responsibility, economic responsibility, and responsibility to contribute to social issues. The themes of compliance, corporate governance, risk management, and information disclosure are essential for implementing

by putting our CSR policy into practice. To achieve this goal, we will discharge our **Compliance Responsibility** to ensure compliance with laws and regulations as well as to meet our **Economic Responsibility**. We are working to reward employees, shareholders and society by ensuring steady growth through faithful company management as we wish to meet both our social and environmental responsibilities.

sound business operations while discharging compliance and economic responsibility. The remaining themes are environmental conservation, quality, product safety, occupational safety and health, employment and human resources, human rights, social contribution, information security, and private information protection.

<sup>(1)</sup> Stakeholders: people and organizations surrounding the company



## Supporting the Global Compact Initiative

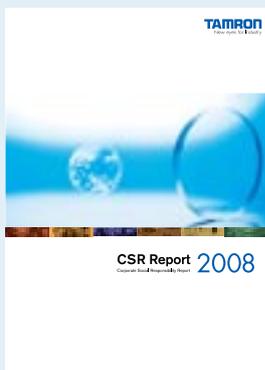
Agreeing to the Global Compact (GC), an international initiative proposed by the United Nations to support the Ten Principles related to human rights, labor, environment and prevention of moral corruption, Tamron became a supporter of the initiative in August 2007. The Ten GC Principles became pillars in establishing our CSR promotion structure. For further details on the initiative, please visit the United Nation website at <http://www.unglobalcompact.org/>.



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## Editorial Policy



### About the front cover design

The front cover design of this report uses blue, Tamron's corporate color. The design symbolizes the earth being enwrapped by light entering from a lens element, expressing the harmony of Tamron and the environment of the earth with our wish to contribute to our economy, society, and environment.

1. This report is issued for informing our customers, employees, shareholders, investors, business partners, communities and other bodies (local communities, public bodies, NGOs and NPOs being our stakeholders) about Tamron's work and progress on environmental conservation and social responsibility.
2. This report covers Tamron Co., Ltd and Tamron Optical (Foshan) Co., Ltd.
3. The guidelines referred to are Environmental Report Guidelines (2007 Version), Greenhouse Effect Gas Assessment & Reporting Manual (Ver. 2.1 2007) and Environmental Accounting Guidelines (2005), issued by the Ministry for the Environment.
4. The needs for disclosing information to stakeholders were determined in accordance with GRI Sustainability Reporting Guidelines.
5. We strive to disclose information from the perspective of stakeholders by referring to the warranty processes in AA1000 Warranty Standards.

For additional information, please contact:

CSR Promotion Office, Tamron Co., Ltd., 1385 Hasunuma, Minuma Ward, Saitama City, Saitama 337-8556 Japan

Tel: (048) 684-9190 Fax: (048) 684-9472 E-mail: e-report@tamron.co.jp

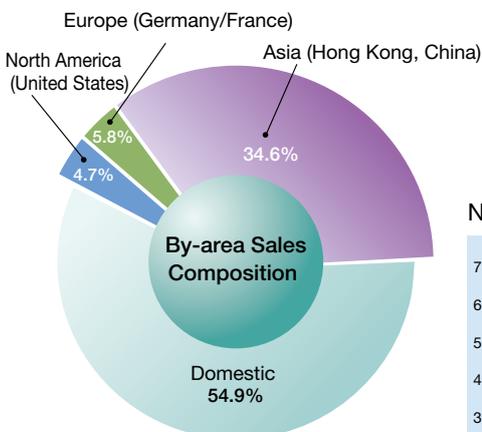
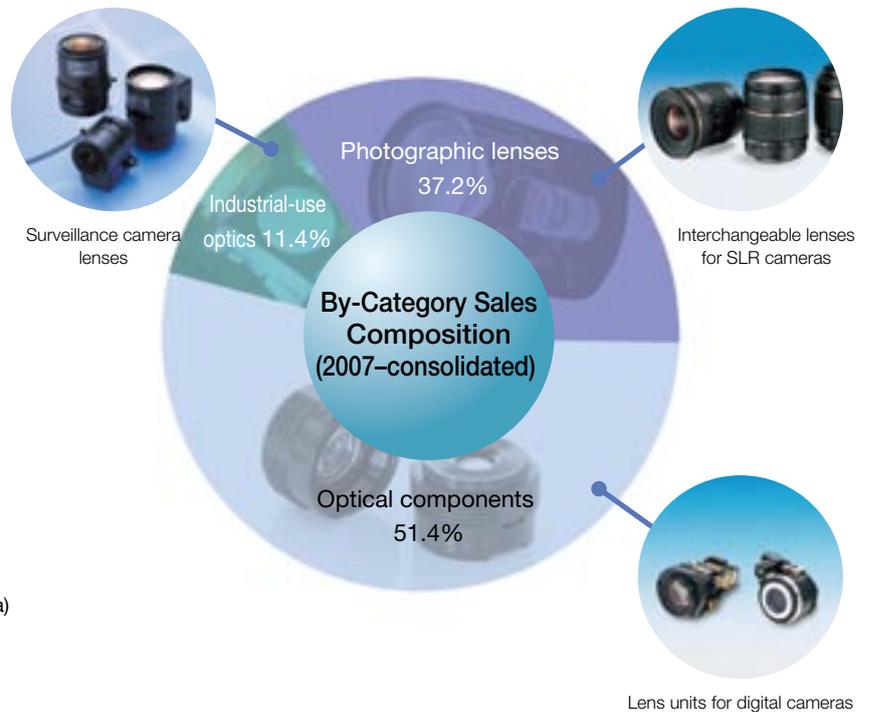
# Company Profile



Head Office

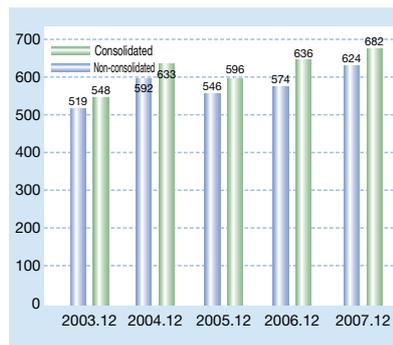
Trade Name	Tamron Co., Ltd.
Head Office	1385 Hasunuma, Minuma-ku, Saitama City, Saitama Prefecture 337-8556 Japan
Tel.	+81-48-694-9111
Founded	November 1, 1950
Established	October 27, 1952
Capital Amount	6.923 billion yen
Representative Director	Morio Ono
Employees	Consolidated: 5,064 (including 470 temporary employees) Non-consolidated: 1,381 (including 466 temporary employees)
Total Sales	Consolidated: 68.204 billion yen (2007) Non-consolidated: 62.449 billion yen (2007)
Stock Exchange	1st Section, Tokyo Stock Exchange
Domestic Factories	Hirosaki, Namioka, Owani
Affiliated Companies	The United States, Germany, France, Hong Kong, China (Shanghai, Foshan)

## Summary of Business

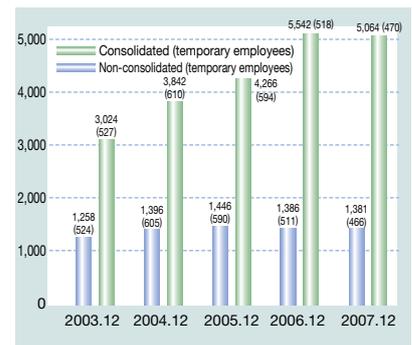


By-area Sales Composition is based on sales to customers in Japan and areas where Tamron's subsidiary companies exist. Sales figures in overseas markets are primarily sales of interchangeable lenses for SLR cameras.

Net Sales



Numbers of Employees



## Feature

# Communication with stakeholder

Our CSR policy is to contribute to the economy, society and environment by creating eyes for industry, and we advocate discharging our CSR through our main business.

However, the ways we act with our CSR policy differ depending on the stakeholders. We need to maintain communications with stakeholders at home and abroad, listening to their opinions and expectations to Tamron and responding accordingly. From this perspective, we classify our stakeholders into five categories: customers; employees; shareholders/investors; business partners; and society (local communities, public agencies, NGOs and NPOs), enacting our action declarations to clarify our position with

each group of stakeholders. Also, recognizing that the Earth exists as another important stakeholder, we are committed to working to preserve the environment. At Tamron, each employee is expected to work, thinking of our stakeholders and working based on our action code, which is expressed in our action declarations.

All of us at Tamron wish to respond to the opinions and expectations of our stakeholders and establish better relationships to grow together. Recognizing that the behavior of each and every employee leads to goodness and dignity for our company, we will work on promoting our CSR work as a group.



# Stakeholder Dialogue



## Tamron's 1st Stakeholder Dialogue

Tamron held the first meeting to dialogue with stakeholders in order to understand their impressions and opinions on Tamron's business. The valuable information obtained at the meeting is reflected in our CSR management, and we will work on deepening our relationships with our stakeholders by further disclosing information on our CSR management.

The 1st meeting was held in December 2007 for listening to the opinions of our stakeholders on Tamron's work for reducing environmental impact and the desirable direction of work to enhance CSR management. After explaining our work so far in these areas, we asked our stakeholders to inform us of their opinions. We received a variety of opinions from the stakeholders. Our CSR committee composed of directors and officers of our company, reviewed the opinions to reflect them in our CSR work.



**Facilitator:** Professor Noriyasu Kunori of the Graduate School of Ecology Engineering, Toyohashi National University of Technology, who was in charge of establishing the Sustainable Society Coordinate Course at the university

### Overview of the Event

**Date:** December 12, 2007 **Venue:** Tamron's Omiya Head Office **Participants:** Seven outside participants (as described below) and six participants from Tamron



Yoshifumi Tsuruta, part-time lecturer at Hosei University (environmental management theory)



Chieko Maeda, editor-in-chief, Consumption and Life (bi-monthly magazine)



Yoshinari Kaneko, a member of Tamron/Bronica Club



Masashi Ito representing corporate customers



Heikichi Inaba, chairman of residents' association



Shigeo Kurosawa, subsection chief, water quality/soil, Saitama City Environmental Preservation Bureau



Haruna Tateshima, a student of Human Environment School, Hosei University

### Opinions Received and Future Directions

#### Theme

#### 1. Tasks for reducing environmental impact

- (1) Collecting data on environmental loads (both at home and in China on the same level)
- (2) Reducing consumption of raw materials
- (3) Reducing the absolute amount of CO<sub>2</sub>
- (4) Explaining performance in the CSR report in further detail (since performance evaluation differs depending upon factories)
- (5) Strengthening structure of management of chemical substances (compliance)

#### Status Quo at Tamron and understanding

- (1) Insufficient so far. Generally speaking, attention to situations in China is high. Further efforts are necessary.
- (2) Further efforts to promote resource saving (through Design for Environment, p. 8)
- (3) Energy monitoring at the head office as a countermeasure to save energy (p. 17)
- (4) Explanation in CSR Report was insufficient (Environment/Social Report in 2007)
- (5) In progress, in compliance with laws and regulations

#### Future Directions

- (1) Operations to understand waste volume to be reinforced at Tamron Optical (Foshan) in 2008
- (2) Material flow cost accounting to be introduced on raw materials and projects to reduce usage volume
- (3) Energy monitoring at Namioka Factory in 2008 to strengthen efforts to reduce CO<sub>2</sub>
- (4) Easier to understand statements for our CSR Reports from 2008. Since an available space is limited, disclosing further information at Tamron's website will be simultaneously studied.
- (5) Further efforts to enhance compliance, by obtaining the latest information on laws and regulations on a global basis

#### 2. Work to further contribute to society (directions of work to promote CSR management further)

- (1) Participation in fostering Saitama City's Water and Green Preservation Program
- (2) Participation in projects for preserving nature, in order to conserve nature as a photographic subject
- (3) Educational courses on photography open to stakeholders (utilizing characteristics of Tamron in the field of optical technology)
- (4) Photographic class room activities (e.g., to housewives for taking pictures of their children using simple point-and-shoot digital cameras)

- (1)(2) Tamron's contribution to conserving our natural environment being a photographic subject is greatly expected. We must work on promoting work worthy of the name Tamron as a lens maker.
- (3) As we understand, our social contribution through lenses as our main products is greatly expected.

- (1)-(4) Review of internal provisions for social contribution, to study activities in concrete form
- (3)(4) Catering services of educational courses to assist chemistry and natural science lessons at local elementary schools

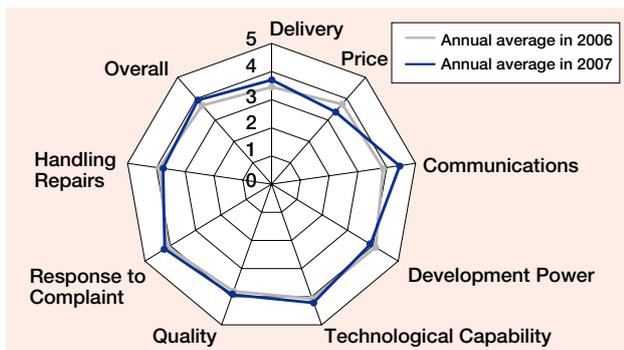
# Relationships with Customers

Tamron works promptly on problem solving when problems are found in any stage from development to manufacturing, working hard to supply customers with high-quality safe products that will please them.

## Valuing and Understanding Customer Opinions

Tamron has a company-wide and cross-sectional quality management system to develop products pleasing customers, utilizing customer opinion as important information for improvements. Tamron obtains opinions of users of photographic interchangeable lenses through questionnaires included in display boxes, creating opportunities to listen to customer opinion. For OEM products, questionnaires entitled "Questionnaire for Surveying Degree of Customer Satisfaction" are sent to all OEM customers to discover their opinions on the eight aspects of "delivery", "price", "communications", "development power", "technological capability", "quality", "response to complaints", and "handling repairs", providing helpful information for developing products and improving services. Overall, evaluation results for 2007 improved by one point, but evaluation results dipped from 2006 for "price", "development power", and "handling of repairs". Related departments are studying now to see how we can improve. For example, to improve the efficiency of our repair services, we reviewed the flow for receiving products to be repaired at customer support points and delivering them to our repair service facilities. These efforts resulted in shortening repair service lead time by one day, and the average period for repair services has been shortened from five days to four days.

Results of Customer Satisfaction Survey (annual average points in 2006 and 2007)



## For Supplying Safe Products

Tamron specifications set strict safety precautions to protect our customers from damage due to product design. Tamron specifications include confirming the following points as essential elements to ensure safety:

- (1) Product design preventing human injuries**
  - confirmation of chamfer counter boring to ensure the products are free of external protruding points
  - Sun light irradiation tests to confirm that product parts are not likely to melt down
- (2) Durability tests**
  - Sufficient product durability – validation through strength tests by using rebound pendulum testers, vibration testers, and more
- (3) Products free of harmful substances**

## Opportunities for Interacting with Customers

Tamron provides free maintenance services for Tamron lenses at PIE (Photo Imaging Expo) held every year at Tokyo Big Site. Our free maintenance services are highly regarded, and the number of customers bringing Tamron lenses to our workshop in our booth increases every year. We would like to take advantage of these services as an opportunity to listen to feedback from our customers.



Free Maintenance Services at PIE

## For Developing Original High-quality Products

As a pioneer in high power zoom lenses, Tamron constantly works on developing new technologies to satisfy customers.

For example, in November 2007, Tamron launched the AF28-300 mm F/3.5-6.3 XR Di VC (Model A20), a 10.7X high power zoom lens for digital SLR cameras



AF28-300mmF/3.5-6.3 XR DiVC (Model A20)

with a new vibration compensation mechanism. The vibration compensation (VC) mechanism uses Tamron's actuator<sup>(1)</sup> and algorithm<sup>(2)</sup>, providing stabilized viewfinder images with excellent tracking performance<sup>(3)</sup> for comfortable handheld photography.

<sup>(1)</sup> Driving component

<sup>(2)</sup> Computer operation process to compensate for vibrations

<sup>(3)</sup> Performance to precisely track movements of subjects and prevent hand-shake blurring

## Tamron's DfE (Designs for Environment)

In order to continue to develop products with designs for the environment, Tamron enacted product assessment regulations. The regulations require each new product be evaluated based on safety and environmental impact in the product life cycle ranging from manufacture, distribution and use to disposal and recycling. As a prerequisite, the design and manufacturing processes will be reviewed as necessary. The main evaluation items include product life, resource saving, energy saving, recycling and chemical substance management. Products satisfying standards set for the respective evaluation items will carry Tamron Eco Labels. Products carrying Eco Labels are expected to become available in 2008.

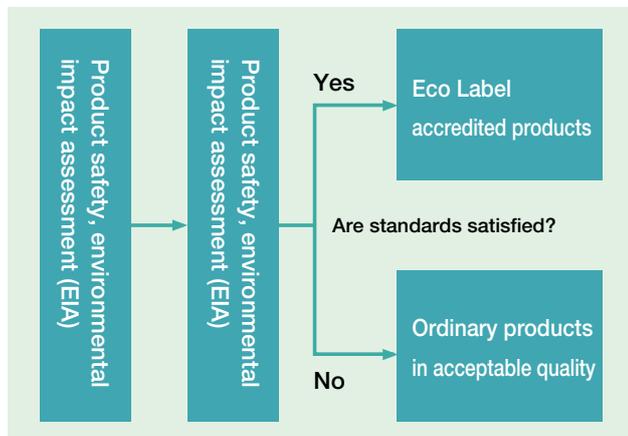


Tamron Eco Label

### \*Tamron Eco Label design

The label symbolizes an eye gently looking at our economy, society and environment. The eyebrow symbolizes a flowing stream or water, the pupil the earth in green, and the tree in the pupil our activities for the three R's of reduce, reuse and recycle.

## Flow of DfE



## Example of accomplishments with DfE

### 13VG2812ASII compared with 13VG2812AS

In Model 13VG2812ASII, a new surveillance camera lens, the material volume has been reduced by 11% by changing metallic parts to plastic parts, although the numbers of parts and cubage have been increased for more stability and higher optical performance.



### Comparison Table

	2812AS	2812AS II	Vs 2812VS
Volume of materials	79g	71g	Down 11%
Number of parts	44	50	Up 12%
Cubage	38c m <sup>3</sup>	41c m <sup>3</sup>	Up 7%

## Interview with a designer



Masanori Miyauchi  
 Mechanical Design Department  
 Design Engineering Division  
 Industrial Optics Business Unit

Our Model 13VG2812AS has been highly evaluated by our customers since its introduction in 2001 as a high performance high-power vari focal lens <sup>(1)</sup> offering focal lengths varying from wide angle to telephoto with its 2.8-12 mm 4.2X focal length range. However, based on the optical design, we reviewed the entire mechanical design of the lens in order to derive the best performance from the optical design. The new lens thus developed is Model 13VG2812ASII. This challenging work enabled us to solve all the quality problems in the previous model while reducing the material volume and decreasing production costs.

<sup>(1)</sup> Vari focal lens – a lens offering dual focal lengths. Angles of view can be changed after installing the camera/lens outfit. A vari focal lens is a lens as compact as a fixed focal length lens while offering additional focal lengths, similar to a zoom lens. (Focal lengths are not continuously variable like zoom lenses.)

# Relationships with Employees

Tamron works on fostering self-disciplined employees with the spirit of rising to the challenge of creating new ideas in a climate emphasizing ethics. Tamron also strives to create a safe work environment that encourages working, based on fair evaluations, respect for human rights and mutual understanding.

## For Creating a Comfortable Work Environment Together with Employees

Tamron strives to create an environment that is comfortable to work in and reflects employee opinion. Approaches toward this objective include our “consulting office” for directly listening to employee opinions. Interviews with new recruits are held periodically as with employees obliged to work long hours for business reasons, for listening to their opinions and requests. The total number of employees who visited the office in 2007 was almost the same as other years, but the number of consultations related to work content increased, possibly showing that the number of employees wishing to engage in challenging jobs has increased. We are concerned about the number of employees who cease to function properly for psychological reasons as this number appears to be increasing. We will work to adopt an additional system to discover and solve such problems, working on prevention, pre-critical diagnosis, and follow-up care. In 2008, we plan to implement our employee satisfaction survey to hear from our employees in detail. We will beef up our educational programs to enhance coaching techniques and communication skills for employees on managerial levels since the roles they play at our work sites are important to create a work environment comfortable for all employees.

## For Creating a Safe Work Environment

Tamron works hard to ensure proper management of work sites, preventing occupational accidents and establishing and maintaining a safe and healthy work environment, in compliance with related laws and regulations as well as Tamron’s own work regulations.

Tamron enacted safety & health management regulations, established our safety & health committee, and created our occupational safety & health patrol program to ensure occupational safety and health management. In addition, opportunities to take training courses for cardio-pulmonary resuscitation and first aid treatment for injuries, including those from fire, are provided to employees every year to address and minimize disaster. In 2007, there were eight occupational accidents, compared to two in 2006, and six accidents while commuting, compared to zero in 2006. The occupational accidents occurred during processes at production sites, and injuries were light. Recognizing the necessity for preventive measures, countermeasures have been implemented. Most accidents while commuting are almost unavoidable as they happen during commutes by bicycle when other parties suddenly jump in front of the cyclists. Still, we are working on reducing such accidents through a variety of means including safe driving training courses with assistance from the local police.

## For Nurturing Self-disciplined Employees

New employees come to Tamron with a strong desire to build careers and grow while breaking through various barriers as they gain experience. Employees sometimes encounter barriers that are difficult to break through, becoming unable to advance further. To extend support for such employees, Tamron regularly provides “motivation control courses” to new employees and employees four years after starting at our company, helping employees to learn ways to find solutions by themselves and get on their feet again as soon as possible. The training courses are designed to help participants learn how to find breakthroughs against psychological barriers and ways to classify changeable and unchangeable things, like a quiz game. The program is designed to enable each participant to learn ways to behave while enjoying games and talking.



motivation control courses

## Employee interview



Yuki Saito  
2nd Section, Information  
Systems Division

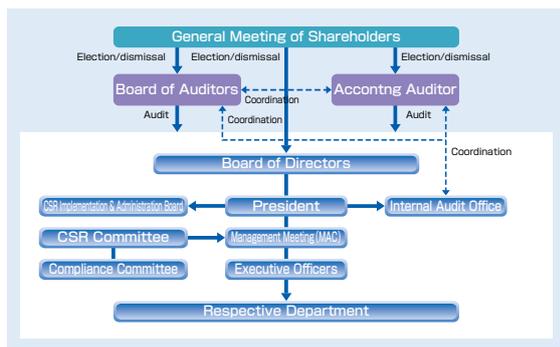
I still clearly remember the friendly atmosphere in the seminar for we new employees, an atmosphere that was created by the friendly group work of those of us who were hired in the same year. We built friendship and solidarity in our seminar. Since the seminar was held immediately after our ceremony to enter the company, we did not yet understand our work, but we could better understand our new fellow workers. I still remember how the group work taught us to look beyond first impressions. The motivation seminar Tamron provides to all employees in the 4th year after entering the company is a good opportunity to stop in the course of our busy lives and take a new look at ourselves. During our discussions with fellow employees, I realized that everybody had hang-ups in the course of gaining experience. I realized that I was not the only one who was dwelling on minor affairs. I think Tamron should continue these programs as they provide employees with the opportunity to analyze their characteristics and objectively look inward at themselves.

# Relationships with Shareholders and Investors

We are striving hard to establish a highly transparent organizational structure by constantly reviewing our organizational climate, working on realizing our corporate philosophy by fulfilling our responsibilities to our stakeholders.

## Corporate Governance Work

We at Tamron work on fair management with high transparency.



Corporate Governance Structure

### (1) Separation of Management and Executives

Tamron introduced an executive officer system in January 2005. Under the new system, we expect to focus on management decisions, working over strategies on a mid/long-term basis as well as ideas for evolving new business, while executive officers flexibly and promptly superintend and carry out our daily business operations.

### (2) Organizational Structure for Internal Control

Tamron organized an Internal Audit Board in January 2004 as an organization under direct supervision by our representative director. The board audits our business operations based on our internal audit regulations, independently reporting the state of compliance with internal regulations to our representative director. The board also implements follow-up audits some time after the initial audit to ascertain that improvements have been made and ensure compliance with internal regulations. Tamron also set up a CSR management office in January 2007 to put CSR management into practice. The CSR management office is promoting work in line with our Twelve CSR Themes to put CSR management into practice, in addition to refining quality and environment management systems.

### (3) Internal Control through Committee Meetings

Budgets variations and countermeasures taken are reported regularly to monthly business performance discussion meetings attended by all directors and executive officers, reviewing business tasks with multifaceted approaches. Our auditors and a representative of the internal audit board also attend each meeting to observe.

## For Thoroughgoing Compliance

The compliance committee at Tamron meets regularly, chaired by a director in charge of compliance, for reviewing problems other companies have in regard to laws and regulations. The committee also examines issues to be addressed in our company and studies educational programs for employees.

### Activities in 2007

Workshop on preventing insider trading

A lecturer from the Tokyo Stock Exchange was invited and a workshop was held for members of the compliance committee on preventing insider trading.

### Practical guide on compliance

We issued a practical guide on compliance regulations, our internal regulations on employee behavior, distributing the guide to all employees.

### E-learning on compliance

After educational sessions on compliance for about six months, we provided an e-learning course so our employees can check their understanding of compliance.

In addition, we refined our information security structure, working to prevent leakage of trade secrets and confidential information including private information and to enhance stakeholder confidence in our company. We have been working to strengthen our intelligent infrastructure and management systems, while providing educational opportunities to all employees to enhance information security.

## Easy-to-understand IR Activities (1)

### (1) For better communications with institutional investors

The fiscal year at Tamron is from January 1 through December 31. The results of the interim closing as of June 30 are announced in August and the full fiscal year results as of December 31 in February. We hold meetings after our announcements in August and December to explain the results in further detail and present our forecasts for the next fiscal year to institutional investors. At each meeting, management, including our representative director, explains the important points when announcing the results. Institutional investors welcome these meetings as Q and A opportunities.

#### Q: What kind of information do you provide at the meetings?

A: First, we describe our business performance for the period under review. We provide additional explanations on by-segment performance, financial conditions, cash-flow situations, capital investments, R&D progress, and major accounting items including inventory assets. Then, we explain our forecast for the next fiscal year. Lastly, we cover the direction of our business during the several years to come as well as the climate of our business for our mid-range strategies.

#### Q: Can non-institutional investors review reference materials used at explanatory meetings?

A: Reference materials used at our meetings are open to all investors. Our company posts all the reference materials on our website on the day of each meeting.

### (2) Communications with non-institutional investors

In 2007, Tamron participated in IR Events for non-institutional investors. At an IR event in the summer, a company information session was held by Shoji Kono, Corporate Vice President of our company. It was highly evaluated by participants, and we received the compliment saying "an excellent opportunity with easy to understand explanations".



IR Event

(1) IR (Investor Relations, information disclosure to investors)



**WEB** <http://www.tamron.co.jp/en/investors/top/index.html>

# For Establishing Good Relationships with Business Partners

Tamron respects human rights, ensures compliance with laws and regulations and pursues fair and transparent transactions, in order to establish good relationships with our business partners and supply society with high quality products and services.

## Basic Procurement Policy

We at Tamron believe that maintaining good relationships with our business partners is essential for developing high-quality original products measuring up to customer expectation and selling them at prices attractive to customers. In starting to work on CSR management from 2007, we enacted our action declarations and action codes based on this.

### Action Declarations

Tamron expects all business partners will respect human rights, ensure compliance with laws and regulations, and supply Tamron with high quality products and services through fair and transparent transactions, enabling us to establish good partnerships, grow and contribute to society together.

### Action Codes

#### (1) Fair transactions

Tamron strives to sufficiently and properly understand all related laws and regulations and pursue fair and transparent transactions through free competition, focusing on QCDE<sup>(1)</sup>, working together with business partners.

#### (2) Mutual growth

Tamron pursues growth together with business partners by reflecting own proprietary technology and competitive edges in our products and services.

#### (3) Environmentally-friendly transactions

Tamron works on conserving the environment of our Earth together with business partners.

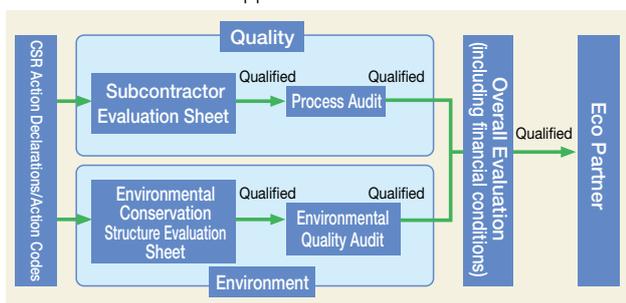
#### (4) Human rights

Tamron respects human rights together with all business partners including secondary and tertiary partners, eliminating forced and child labor.

<sup>(1)</sup> QCDE: Quality, Cost, Delivery and Environment

## Tamron Procedures to Select Suppliers

Before commencing transactions with any new suppliers, Tamron evaluates their quality assurance structures, environment conservation structures and financial conditions through Tamron evaluation standards and audits, accrediting only suppliers satisfying Tamron standards as eco partners to give them priority in business transactions. In 2008, Tamron plans to introduce our CSR into procurement, while adding the labor environment, safety, sanitation and other factors as prerequisites for overseas suppliers, the same as domestic suppliers.



Flow of Selecting Suppliers

## Green Procurement

Tamron procures raw materials and parts from suppliers with properly established environmental management and chemical substance management structures. These suppliers are our eco partners. Regulations for eliminating harmful chemical substances have been becoming stricter globally. Tamron strives to ensure proper management of harmful chemical substances together with suppliers. Tamron distributes our "Environment-related Substance Management Regulations" stipulating harmful chemical substances that must not be used, "Guidance for Environmental Quality Assurance Structure", a procedure manual for preventing using harmful chemical substances in products, and our "Environmental Quality Management Procedures" to all suppliers, requesting their cooperation, auditing, and implementing follow-ups of audit findings. To guarantee that our products are free of harmful chemical substances, Tamron introduced advanced equipment such as XRF (X-ray fluorescent analysis apparatus), ICP-AES (Inductively-Coupled Plasma Atomic Emission Spectrometry) and GC-MS (Gas Chromatography Mass Spectrometry) for checking lead, mercury, cadmium, hexavalent chrome, PBB and PBDE<sup>(2)</sup> in parts, materials and products.

<sup>(2)</sup> PBB (polybrominated biphenyl) and PBDE (polybrominated diphenylether) are used mainly as fire retardants in plastic, rubber and tape. They are registered as endocrine disrupting chemical substances (environment endocrine disrupters), suspected to cause memory failure, central nervous system disorders such as depression, ateleiosis, liver problems, and hypertrophied thyroid gland.

## Interview with a supplier



Kazuhiko Tanaka  
Manager, Environment Quality  
Management Division  
Kanepackage Co., Ltd.

Managing environmentally harmful substances is our commitment to the earth and our children.

We at Kanepackage understand Tamron has been striving to satisfy regulations with intensive systems for eliminating environmentally harmful substances from Tamron products, preparing for this era when controlling regulations are becoming stricter and value their contribution toward protecting the Earth.

Our company supplies Tamron with packaging materials. When studying how we could cooperate with Tamron, helping users to be confident in Tamron products and contribute to society, Tamron suggested introducing an XRF analyzer. This instrument enables us to show that our packaging materials are free of harmful substances, particularly RoHS substances<sup>(3)</sup>. We introduced an XRF analyzer in November 2007. Now, by combining our own inspections with the analyzer and validation by our raw material suppliers, we can supply all our customers including Tamron with packaging materials satisfying all applicable regulations. We wish to continue to contribute to protecting our environment by utilizing the XRF analyzer and striving to provide our customers with products that are safe and impressive, as we advocate with our company creed for environmental protection.

<sup>(3)</sup> Lead, mercury, cadmium, hexavalent chrome, PBB and PBDE

# Relationships with Society

To grow together with society and continue to be supported and patronized by society, Tamron also works to support social events and cultural activities, hoping that photography and imaging culture develop and evolve further.

## For Contributing to Development of Photography and Imaging Culture



**Grand Prix of the 2007 Macro Lens Photo Contest**  
Akio Tsuji, "Larva of a mantis on a false freesia narcissus"

**WEB** <http://www.tamron.co.jp/special/macrocon2007/result.html>

Tamron works to contribute to developing photography and imaging culture by taking advantage of knowledge and experience as a camera lens manufacturer. Photographic images are formed expressing emotions photographers have when facing their subjects. Photographers capture images when they are impressed with new findings, encountering people, nature and more. Tamron works to support social and cultural activities so many people can touch moments in life through photography.

### ● Macro Lens Photo Contest

Tamron hosts the Macro Lens Photo Contest on a nationwide basis every year. Open to all photographers, any photographer can participate as long as their work consists of macro pictures. In 2007, photographers submitted as many as 3,274 macro pictures of nature, animals, flowers and other topics.

### ● Supporting Photographic Institutions

Tamron supports The Tokyo Metropolitan Museum of Photography, The Photographic Society of Japan, Japan Professional Photographers Society and Saitama Prefecture Arts Foundation as a member.

### ● Tamron Bronica Club

Tamron financially supports the Tamron Bronica Club by providing a place for serious amateur photographers to share the splendor of art and photographic culture, introducing photographic techniques through a club magazine.

**WEB** [http://www.tamron.co.jp/tb\\_club/top/](http://www.tamron.co.jp/tb_club/top/)

## For Growing Together with Local Communities

Tamron's head office is situated in a residential district in Saitama City. Tamron engages in business under the benevolent eyes of community residents. Similarly, our employees at the three factories in Aomori and our overseas subsidiaries share

the same recognition that local communities are our important stakeholders. Our CSR action declarations demonstrate that Tamron is committed to establishing close relationships with local communities as a good corporate citizen, contributing to the maintenance of safe and healthy lives of people and protecting the tradition and culture of our local communities.

### ● Factory Observation Tour

In November 2007, Tamron's head office in Omiya was accredited by Saitama Prefecture as one of Sainokuni (Saitama Prefecture's) Representative Factories having advanced technologies in abundance and being environmentally friendly. Therefore, as part of our work to improve understanding on our company, we regularly hold factory observation tours, inviting our neighbors. In June 2007, third-grade children from Hasunuma Elementary School visited Tamron to see our facilities for making metal molds and analyzing chemical substances. We wish to continue these tours in order to share the joys of manufacturing.



Factory observation

### ● Cleaning Neighboring Areas

Our employees at the Omiya head office and the three factories in Aomori cleanup in neighboring areas once a month. In 2007, our employees collected a total of 125 kilograms of waste during these cleanups. Many participating employees shared their feelings, saying that they feel refreshed as the neighborhood is clean, they wish to continue to keep clean environments inside and outside of our company, and more.

## Employee interview



**Hidemi Kobayashi**  
Manager, General Affairs  
Department, Personnel &  
General Affairs Management Unit  
(Manager Kobayashi is in charge  
of social contribution programs.)

Tamron participated in Saitama Car-free Day Program 2007, a program Saitama City hosted to promote our relying less on cars in our daily life. As part of the program, as a member of the secretariat promoting program participation at Tamron, for people working at Tamron and commuting by car including directors and officers, I suggested we use public transportation on Car-free Day (September 21). As a result, 85 cars, or 90%, of cars usually used for commuting to the Omiya head office were not used, resulting in the reduction of CO<sub>2</sub> equivalent to 561 kilograms\*. Many workers participated in the event to prevent global warming and their personal commuting was a good opportunity to be interested in reducing CO<sub>2</sub>. We wish to continue to refine our systems to contribute to society by cooperating more closely with other departments.

\* Calculated by supposing the average car was driven 20 km to Tamron and back and average fuel consumption per-liter was 7 km on liter.

# For Protecting Our Environment

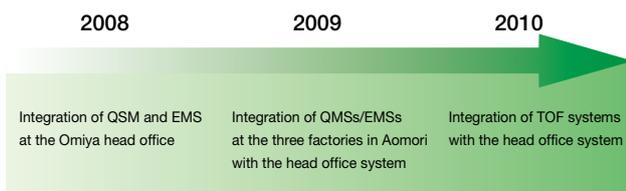
Recognizing the importance of our responsibility to protect the environment of the Earth, we are aiming at environmentally-friendly work in all our business operations.

## Environment Management Structure

In 2007, Tamron completed all preparations for integrating our environment management and quality management systems, which we had defined as one of our environmental management objectives. The main objectives of the integration were simplifying our management systems, reducing total man-hours for maintenance and operation, and relating quality objectives with environmental objectives to concentrate limited management resources on work common to environment and quality, thus ensuring achievement of the objectives. We commenced operating the management system thus integrated from January 2008. As intended under the new management system, actions necessary for enhancing quality and environment protection, complying with new laws and regulations, as well as actions required by our customers, are reported to our CSR Committee. This reporting enables discussing the means for enhancing the degree of customer satisfaction while reducing the environmental load.

We also plan to integrate environmental management systems (EMSs) and quality management systems (QMSs) at the three factories in Aomori by 2009 and Tamron Optical (Foshan) by 2010, in order to enhance environment management operations of the entire group including China.

## Timeline for System Integration



## Education of Environmental Management

An e-learning course was provided to all people working at the Tamron head office including directors. We plan to provide a similar opportunity to all employees working at the three factories in Aomori within 2008. The course contents include global warming, ozone depletion, acid rain, forest diminishment, desertification and decay of diversity of organisms. The course is designed to teach participants the root causes for those problems, status quo and activities at home and abroad. In 2008, we plan to participate in the Team Minus 6% under the sponsorship of the Ministry for Environment (MfE) to connect the behavior of everyone working at Tamron with our environment protection work.



## Environmental Accounting

The total investment for environmental activities in 2006 was ¥3.84 million, which rose to ¥51.45 million in 2007. Major investments included an electric power monitoring system for energy saving and converting incidental facilities at the Omiya head office to energy-saving facilities. The conversion investment included introducing a new independent air-conditioner system enabling air-conditioning for necessary work areas at necessary times, energy-saving fluorescent lamps and double insulating glass for windows. The total economic effects also rose from ¥0.59 million in 2006 to ¥4.41 million in 2007, which was mainly due to the decrease in electricity costs that was not posted in 2006.

The total environmental expenses decreased by ¥6.04 million compared to 2006. The main items related to the decrease were management costs and environment damage costs. The decrease of the management costs was due to reducing environmental management costs at the Hirosaki factory because of enhanced work efficiency, while the reduction of environment damage costs was due to removal of a gas venting apparatus for pumped water following the completion of countermeasures against contaminated soil at the Omiya head office.

We will continue to work on studies to establish guideposts for precisely determining the effects of investments, while promoting environmental conservation and economizing.

Category	Environmental cost		Environmental conservation effect	Economic effect	Main activities	Page	
	Invested	Expenses					
Cost with in business area	Pollution prevention cost	—	4,822	Prevention of Environmental accident	—	—	
	Earth environment conservation cost	51,450	41,873	Reduction of Electric use	3,690	P.11 P.17	
	Resource cycling cost	—	30,634	Recycling ratio of general waste from business operations improved, recycling ratio of industrial waste improved	721	Waste reduction and recycling	P.18
	Sub-total	51,450	77,329				
Upstream and downstream costs	—	29,140	Environmental quality audit with business partners	—	Green procurement, package/container recycling	P.11	
Management activity cost	—	43,203	Achieved environmental objectives/targets	—	Operation/maintenance of environmental management systems Budget for green zones Stakeholder dialog Education of environmental management	P.6 P.13	
R&D cost	—	130,384	Performance of 13VG2812AS enhanced	—	Efforts to introduce environmentally-friendly designs	P.8	
Social activity cost	—	766	Garbage reduction	—	Neighborhood cleaning	P.12	
Cost to prevent environmental damage	—	1,370	Concentration of contaminant in ground water reduced to a level better than the environmental standard at places near PRBs	—	Soil contamination prevention (using air stripping facilities)	P.21	
Total	51,450	282,192		4,411			

\*Scope of environmental accounting  
 Period: From January 1 through December 31, 2007  
 Premises covered: Omiya head office (including Tokyo and Osaka sales offices), Hirosaki, Namioka and Owani factories  
 \*Labor costs are calculated based on an average wage.  
 \*The economic effect from the earth environment conservation cost is the amount of electricity reduced in 2007 compared with that of 2006. The economic effect from the resource recycling costs is the amount of profit from selling waste metal as valuable resources.  
 \*Depreciation allowance is not calculated as an expense.

## Environmental Loads

Energy consumption decreased by 5.14 million GJ in 2007, while CO<sub>2</sub> emissions rose by 3,140 t. The emissions coefficient of electricity consumption in China became larger compared to the coefficient in 2006<sup>(1)</sup>. The LNG consumption volume at the company cafeteria of Tamron Optical (Foshan) (TOF) increased considerably due to the increase in workers. Copy paper consumption also rose due to shifting from stock forms to copy paper following changes in internal systems in 2006. Also, in

compiling this report, we calculated CO<sub>2</sub> emissions by determining energy consumed by company vehicles used in the domestic market in Japan, as well as energy consumption in the distribution network linking factories and sales offices.

<sup>(1)</sup> For 2006, by referring to "Method to calculate greenhouse gas emissions from business enterprises" (Version 1.6), the coefficient of 0.000378 is used. For 2007, by referring to "CO<sub>2</sub> estimation – Manual for calculating and reporting greenhouse gas emissions (Version 2.1)", energy consumption is calculated in a formula of (GJ) x 0.000555.

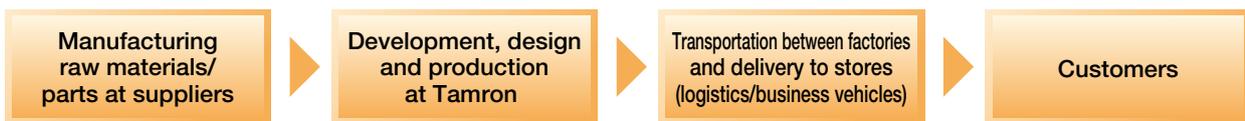
### INPUT

Energy		Water	
Electric power	46,269,837kWh	Clean water	405,000 m <sup>3</sup>
Crude oil	232kℓ	Sewage water	12,000 m <sup>3</sup>
Kerosene oil	18.9kℓ		
Diesel oil	0.6kℓ	Raw/auxiliary materials	
PPG	23,200 m <sup>3</sup>	Metal (brass, aluminum)	
Natural gas	81,000 m <sup>3</sup>	Glass	
<b>Total</b>	<b>429,600MJ</b>	Plastic	
		Chemicals (drugs, solvents, cleaners)	
		Gas (nitrogen, oxygen, argon)	
		Electrical components	
		Cardboard	

Paper	
Copy paper	20.6t
Stock forms	0.3t

Transportation energy	
Diesel oil	140.8kℓ
Gasoline	80.5kℓ
<b>Total</b>	<b>221.3kℓ</b>



### OUTPUT

CO <sub>2</sub> Emissions		Recycled	
Electric power	22,771t-CO <sub>2</sub>	Paper	33.9t
Crude oil	628t-CO <sub>2</sub>	Cardboard	48.8t
Kerosene oil	47t-CO <sub>2</sub>	Metal	41.8t
Diesel oil	2t-CO <sub>2</sub>	Glass	0.4t
LPG	7t-CO <sub>2</sub>	Plastic	33.8t
Natural gas	167t-CO <sub>2</sub>	Grinding sludge	16.7t
<b>Total</b>	<b>23,622t-CO<sub>2</sub></b>	Waste fluid	249.3t
		Others	41.5t
		<b>Total</b>	<b>466.2t</b>
		Products *2	
		<b>Total</b>	<b>23,075t</b>

Waste entrusted for intermediate treatment	
Industrial waste	608.1t
General waste	158.6t
<b>Total</b>	<b>766.7t</b>

CO <sub>2</sub> Emissions during Transportation*1	
Diesel oil	369t-CO <sub>2</sub>
Gasoline	187t-CO <sub>2</sub>
<b>Total</b>	<b>556t-CO<sub>2</sub></b>

#### Scope of INPUT Items

Omiya head office (including Tokyo/Osaka sales offices), three factories in Aomori, Tamron Optical (Foshan), China

#### Scope of OUTPUT Items

Omiya head office (including Tokyo/Osaka sales offices), three factories in Aomori, Tamron Optical (Foshan), China (excluding Tamron Optical (Foshan) as for waste entrusted for intermediate treatment)

\*1 The volume of CO<sub>2</sub> emissions during transportation is the volume of emissions from overland transportation of products and parts between factories and business vehicles used by business departments including sales offices.

\*2 The output figure for products includes output from Tamron Optical (Foshan), from a report for 2007.

# State of Achievement of 3rd Environmental Objectives and Targets

In 2007, Tamron worked on achieving the 3rd environmental objectives and targets. As a result of company-wide participation, the work sites achieved most of the objectives for 2007.

## Degree of Achievement of Environmental Objectives and Targets for 2007

In 2007, the Omiya head office commenced work on the first year of the 3rd environmental objectives and targets, while the three factories in Aomori and Tamron Optical (Foshan) (TOF) worked on their respective environmental objectives. The Omiya head office almost achieved its objectives and targets. In particular, the volume of industrial waste declined by 31.7% and 36.7% at the Aomori factories and TOF in case of general waste, well over targets for 2007. Also, in terms of DfE designs, engineers steadily worked on achieving

targets for longer use, lighter weight and more compactness. However, we were unable to meet the standard (BOD value) for the quality of waste water as we had planned in our work for preventing environmental contamination, which was due to delay in the progress of our project to enhance LCA <sup>(1)</sup> as planned in our work to promote DfE. As for the problem of the overrun of the BOD standard, countermeasures were taken to increase the frequency for cleaning water-purifier tanks. As a result, the value has been kept below the standard in and after March.

## Environmental Objectives/Targets for 2007 (Head Office), Achievement Ratios and Targets/Objectives for 2008 and 2009 (Group)

The achievement ratios of environmental objectives and targets for 2007 as well as objectives and targets to be applied uniformly to Tamron as a group are shown in the table below. To ensure better understanding of the objectives and targets for 2008 and beyond, the xxxxxachievement ratios of our environmental objectives of reducing waste and promoting recycling by our head office and three factories in Aomori are shown in columns for 2007 together with overall evaluation results.

Environmental Objectives	Environmental Targets, State of Accomplishment		
		State of Accomplishment	Self-rating
1 Integrating environmental management and quality management systems into one system, integrating ISO systems of the Omiya head office and 3 factories in Aomori into one system	(1)Preparations for integrating environmental objectives of the Omiya head office, 3 factories in Aomori and TOF, (2)Preparations for integrating environmental management and quality management systems into one system	(1)Established objectives to be commonly applied in 2008, (2)Prepared an integration management manual for integrating management systems to start operating them from January 2008	A
2 Reducing waste, promoting recycling (1) Achieving zero emissions target * *Definition of zero emissions: The volume of waste eventually sent to simple reclamation disposition becomes 2% or less of the total volume of industrial waste (i.e., recycling ratio of 98% or more)	Target - Simple reclamation ratio <sup>(3)</sup> of 5% or less on industrial waste (i.e., recycling ratio of 95% or more)	(Omiya head office) Simple reclamation ratio: 1.9% (Recycling ratio: 98.1%)	A
(2) Reducing industrial waste volume in basic unit * *Basic unit: industrial waste volume/sales) Industrial waste from 3D Techno Center is to be managed based on its total waste volume in 2007 and not included in the group target management figure (to be included from 2008).	Target - Reducing industrial waste volume <sup>(4)</sup> by 2% in basic unit, compared to 2006 (waste from 3D Techno Center to be managed on actual volume)	(Omiya head office) Reduced by 31.7%	A
(3) Promoting recycling of general waste	Target - Promoting recycling of general waste (efforts to understand status quo and promote sorted emissions)	As a result of eco patrolling <sup>(5)</sup> , awareness of sorted emissions was enhanced	A
(4) Reducing general waste <sup>(5)</sup>	Target - Reducing general waste volume by 10%, compared to 2006	(Omiya head office) Reduced by 36.7%	A
3 Promoting measures to reduce CO <sub>2</sub> emissions *Basic unit: CO <sub>2</sub> emissions/sales	Target - Establishing methods for calculating CO <sub>2</sub> emissions volume	Established methods for calculating CO <sub>2</sub> emissions volume	A
4 Promoting DfE - positive sales promotion for products developed in DfE (Designs for Environment) (1) Each implementation item is to be assessed on the basis of cross-comparison with other products in product development and design stages. (2) Target achievement ratios in each year are to be determined by compiling assessment results at development and design stages (*Achievement ratios for items with specific target figures are to be assessed by comparing with other products in similar specifications.)	(1) Promoting resource-saving designs as planned (i) For longer service life: review of product reliability test contents, (ii) For lighter weight: 2% reduction (target), (iii) For more compactness: 2% reduction (target), (iv) For easier disassembling: 2% work (2) Eliminating harmful substances in product: zero nonconformity incidence (target)	(1) (i) Test contents reviewed, introducing new reliability test methods is under study, (ii) Product weight: reduced by 11.6%, (iii) Product cubage: reduced by 15.7%, (iv) Work man-hours improved by 3.7%, (v) LCA being implemented (2 models) (vi) Recycled materials introduction test was done.  (2) Nonconformity incidence: zero	B
5 Proper management of chemical substances (PRTR applicable substances) * *Basic unit: Volume of chemical substances used/sales	Establishing methods to grasping the volume of chemical substances used	Established methods	A
6 Preventing environmental contamination	(1) Suppressing contamination on groundwater outside PRB <sup>(7)</sup> to a level better than meeting the environmental standard (2) Zero environmental contamination accident	Improved to a level better than meeting the standard value at groundwater contamination measuring points outside PRB.  Quality of miscellaneous water (BOD value): BOD value did not meet the standard value in the single month of February. No other environmental contamination.	B

A: Satisfactory B:Partly Unsatisfactory

LCA (Life Cycle Assessment) work was performed in 2007 and is continued in 2008. Also, the three factories in Aomori and TOF in China set objectives for pursuing seven environmental policies of compliance with environmental laws and regulations, protecting resources, preventing environmental contamination, promoting activities for conserving the environment, managing green procurement, promoting education on the environment, and disclosing environment-related information. We worked on the policies and established objectives and targets.

### Tasks for 2008

In recent years, the tendency to shift production of mass-production items to our factory in Foshan has become more conspicuous. Our company has decided to integrate environmental objectives and targets of the Omiya head office, three factories in Aomori and TOF in China from

2008 so that Tamron may work on the same objectives and targets as a group. While the three factories in Aomori attained the target for reducing general waste, the volumes of industrial waste from the Hirosaki and Namioka factories have been increasing. Also, at TOF in China, the structure to determine the volumes of industrial waste has not been sufficiently established. Therefore, building a structure capable of keeping track of the volumes of waste generated is necessary. The Omiya head office must employ stronger countermeasures for reducing waste in 2008 and beyond since the scope of waste management is expected to be enlarged to include our 3D Techno Center <sup>(2)</sup>.

<sup>(1)</sup>LCA (Life Cycle Assessment): A method to assess environmental impact by evaluating all stages from raw materials procurement, manufacturing, transportation and use to disposition.

<sup>(2)</sup>Our 3D Techno Center established in August 2005 is a factory for manufacturing metal molds with three-dimensional fabrication equipment. While managed separately so far, it is planned to be included in our CSR report from 2009 since the factory is expected to start full operations in three shifts from 2008.

Environmental Objectives for 2008	Environmental Objectives for 2009
Integrating environmental objectives of the Omiya head office, three factories in Aomori and TOF as well as Tamron's environmental management and quality management systems	Integrating ISO systems of the Omiya head office and three factories in Aomori
Confining the simple reclamation ratio of industrial waste to 4% or less (i.e., recycling ratio of 96% or more)	Confining the simple reclamation ratio of industrial waste to 2% or less (i.e., recycling ratio of 96% or more)
Reducing industrial waste emissions by 3% compared to 2006 in specific productivity units (target management by including 3D Techno Center)	Reducing industrial waste emissions by 5% compared to 2006 in specific productivity units (target management by including 3D Techno Center)
Enhancing recycling ratio of general waste (statue quo analysis and promotion of sorted disposition)	Enhancing recycling ratio of general waste (statue quo analysis and promotion of sorted disposition)
Reducing general waste emissions by 15% compared to 2006	Reducing general waste emissions by 20% compared to 2006
Reducing CO <sub>2</sub> emissions by 3% compared to 2007	Reducing CO <sub>2</sub> emissions by 6% compared to 2007
(1) Introducing resource-saving designs as planned: (a) Setting targets for longer serviceability and follow-up studies, (b) For lighter weight (2% reduction in product weight), (c) For more compactness (2% reduction), (d) For easier disassembling (2% reduction), (e) Better methods for utilizing LCA, (f) Use of recycled materials in products (2) Complete elimination of harmful substances from products (zero incidence)	(1) Introducing resource-saving designs as planned: (a) 100% pass ratio of inspection for longer serviceability (b) For lighter weight (2% reduction in product weight), (c) For more compactness (2% reduction), (d) For easier disassembling (2% reduction), (e) Better methods for utilizing LCA, (f) Use of recycled materials in products (2) Complete elimination of harmful substances from products (zero incidence)
Reducing ratio of chemical substances used in products by 0.5% per specific productivity unit, compared to 2007	Reducing ratio of chemical substances used in products by 1% per specific productivity unit, compared to 2007
(1) Suppressing contamination of groundwater outside PRB to a level better than an established environmental standard, (2) No environmental contamination accidents	(1) Suppressing contamination of groundwater outside PRB to a level better than an established environmental standard, (2) No environmental contamination accidents

<sup>(3)</sup>Industrial waste from the Omiya head office and Tokyo sales office. Simple reclamation ratios (recycling ratios) are calculated based on amounts of all waste excluding valuable resources, and the scope includes the Omiya head office, 3D Techno Center and Tokyo office.

<sup>(4)</sup>Based on the volume of waste from the Omiya head office and Tokyo office. The volume of industrial waste does not include metal and wood scraps.

<sup>(5)</sup>General waste excluding recyclable waste

<sup>(6)</sup>Structure to evaluate if instructions for sorting waste materials as well as setting air-conditioner temperatures within the prescribed range are being complied with (evaluation through bimonthly investigation by representatives of respective departments)

<sup>(7)</sup>PRB: permeability decontamination bath. For further details, see page 21.

# Efforts to Save Energy and Water for Preventing Global Warming

Tamron strives to reduce CO<sub>2</sub> emissions by introducing energy-saving facilities in addition to working to save electric power at offices and factories.

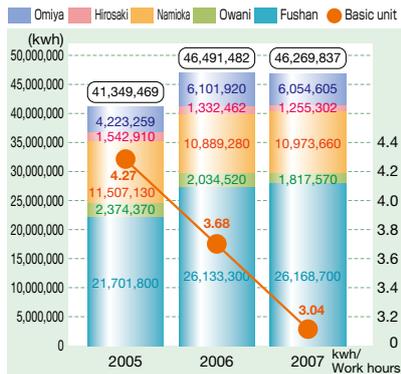
## Energy/Water Saving

### Electric Power Consumption

The total group volume of electric power consumed at the Omiya head office, three Aomori factories and Tamron Optical (Foshan) (TOF) in 2007 declined by 0.5% year on year. Unit consumption rose by 0.6 kWh because work

hours increased in 2007 following the expanded output capacity at TOF. Both the Namioka factory and TOF increased. Electricity consumption at the Namioka factory increased slightly due to introducing six new machines for processing aspherical lens elements in addition to conventional heaters for processing. TOF electricity consumption grew slightly (0.1%) following our decision to shift more mass-production items to TOF.

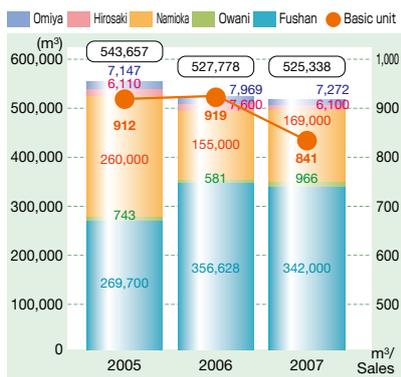
The volume of electric power consumed at the Omiya head office, Hirosaki factory and Owani factory are declining due to operations shifted to TOF and campaigns to switch off the lights in unnecessary places.



### Water Consumption

Water consumption declined about 0.5% compared to 2006. Water consumption in terms of specific productivity, a unit to determine water consumption volume per sales, is declining. Consumption at the Namioka factory, where water is used for cleaning lens elements,

rose slightly. At the Owani factory, water leakage occurred due to degraded ductworks and a delay in taking countermeasures. We will work on stricter risk management so we will detect problems such as water leakage, in addition to countermeasures to reduce water consumption at the Namioka factory.



## Reducing CO<sub>2</sub> Emissions

To decrease energy consumption further, Tamron improved incidental facilities at the Omiya head office. The improvements include introducing air-conditioning systems equipped with devices to allow adjusting temperatures independently at the places and times necessary, energy-saving fluorescent lamps and double insulating glass for windows. In addition, studies to determine electricity consumption by major facilities were made at the Omiya head office in August 2007, installing electric power consumption monitoring apparatuses for enhancing energy saving. As a result, monitored data were updated constantly, enabling us to precisely determine our electricity consumption and work to save energy.

As a result of monitoring, we found that the relative ratio of electricity consumed at our manufacturing facilities and offices was 73% to 27%. Since confirming that reducing power consumption at production facilities directly means overall energy savings, we will continue to work on measures to eliminate waste losses and enhance productivity.

## Interview with a leader of our Sub-committee on Logistics



Yuichiro Shimada  
Section Manager, Repair Section,  
Quality Management Unit

In April 2006, the Law Related to Energy Consumption (Energy Consumption Law) was revised, requiring shippers to save energy. The total volume of CO<sub>2</sub> emissions from our domestic logistics operations is about 500 t CO<sub>2</sub>,<sup>(1)</sup> which means Tamron is not regarded as a specific shipper bearing special responsibilities. However, recognizing our corporate social responsibility as a good corporate citizen amid the growing concern over the global warming problem, Tamron voluntarily organized a logistics sectional committee in June 2006 to determine CO<sub>2</sub> emissions from logistic operations and promote greener operations. Our tasks from now on are to enhance the accuracy of our CO<sub>2</sub> emissions calculation method and work out means to determine CO<sub>2</sub> emissions from operations to transport materials and products to overseas facilities.

<sup>(1)</sup> The volume of CO<sub>2</sub> emissions from company vehicles is deducted from the volume of CO<sub>2</sub> emissions from transporting operations (556 t CO<sub>2</sub> as shown on p.14).

# Efforts to Reduce Waste, Promote Recycling

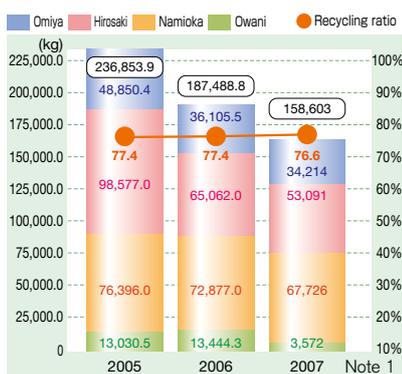
Tamron works to reduce waste and promote recycling.

## Efforts to Reduce Waste

### General Waste from Business

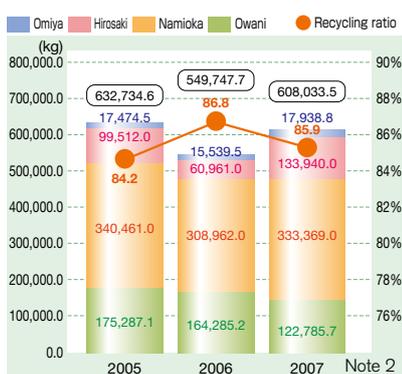
Emission levels of general waste from business declined at all business sites, and the total group volume of general waste in 2007 was reduced by 16% compared to 2006. Emissions from the three domestic factories in

Aomori were reduced mainly because of shifting operations to manufacture some mass-production items at TOF. Our recycling ratio in 2007 remained almost flat at 76.6% from 2005. Reducing the volume of waste from the Namioka factory, a major source of general waste from business, enhancing its recycling ratio and establishing a system to determine the volumes of waste emissions from TOF with increased output capacity are our important tasks for 2008 and beyond.



### Industrial Waste

Waste levels during 2007 increased at all sites, except for the Owani factory, mainly due to the disposal of discontinued items in inventory in large amounts. Our recycling ratio in 2007 declined by approximately 1% year-on-year to 85.9%. We must take additional measures to refine our systems to decide production volumes to match demand and manage inventories.



Notes 1 and 2

Environmental objectives and targets of the Omiya head office, three factories in Aomori and TOF are planned for integration from 2008. Checking methods to calculate volumes of general waste from those sites, we found differences in rules to calculate emissions volumes. We revised our calculation methods as outlined below, and emissions volumes and recycling ratios are changed from the figures in reports for 2005 and 2006.

Major changes	Effects on emissions volumes and recycling ratio
Cardboard emissions from Hirosaki and Namioka factories changed from industrial waste to general waste	Enhancement of recycling ratio of industrial waste
Metal and wood scraps (including valuable resources) were added to industrial waste from the Omiya head office	Increase of emissions volume because of the decrease of metal scraps (300 tons) in 2007 in particular

## Efforts to Enhance Recycling Ratio

In 2007, as a new approach, we checked the practical possibility of recycling waste plastic materials as materials for products. Conventionally, we thought that using injection-molded plastic components as recycled materials would involve problems for durability and accuracy. Therefore, we had not worked on a feasibility study. Up to 2007, a large volume of runner materials<sup>(3)</sup> was generated during injection molding operations in every year. The total volume of plastic materials disposed of in 2007 at the Owani factory, where plastic materials are molded, reached 113 tons, accounting for about 90% of all industrial waste from the factory in 2007. Recycling waste plastic materials is the key for reducing industrial waste.

Therefore, with the assistance of our plastic pellet supplier, we converted waste plastic to pellets, making prototype components by mixing the pellets with injecting molding plastic materials. After going through processes to evaluate performance to withstand drastic changes in temperatures and humidity, durability and external appearance, we confirmed that no quality problems were involved for components for our products. We will continue to work on further evaluation of the degree of precision in actual injection molding processes to ascertain the possibility of using such components on a large scale. We will also strive to reduce runner materials themselves.

<sup>(3)</sup> Materials used in portions equivalent to paths to route resin for making plastic components

## Interview with a Product Recycling Subcommittee member



**Yasunori Watanabe**  
Deputy Section Manager, Production Engineering Section, Manufacturing Division, Owani Factory

Recycling runner materials for reducing environmental risks and lowering production costs was a dream for a long time. Due to the problems involved, those of us at the Owani factory had to delay pursuing this dream. In 2007, we were finally able to start working on the project jointly with the head office amid the increasing need for recycling.

There were no material suppliers with the capability to convert runner materials into pellets in Aomori, but we found such a supplier in Akita. We hope that we will be able to introduce new facilities in the future as soon as the possibility of using recycled plastic materials is confirmed, enabling us to re-pelletize runner materials that have so far been only waste. Reliability and freedom from harmful chemical substances must also be confirmed. We will continue to work on this project, aiming at recycling runner materials as resources.

# Working in China

Recognizing its social responsibility increasing year by year as output capacity grows, Tamron Optical (Foshan) has been striving hard to address CSR in addition to environmental concerns.

## Tamron Optical (Foshan) (TOF)

TOF was established in 1997 in Foshan, a city famous for ceramic wares and called the "Town of Ceramic Wares". At present, the factory is equipped with fully integrated production facilities to manufacture interchangeable lenses for SLR cameras, lens units for digital cameras, and surveillance camera lenses, manufacturing the greater majority of Tamron's main products. In November 2007, Tamron completed its 3rd phase of factory construction work, building a new factory on TOF premises that is equipped with clean rooms and capable of manufacturing lens units for camera phones and vehicle-built-in cameras. The new factory now accounts for almost half the total floor space at present. As the scale and number of people working there increase, the environmental load and social responsibility increase too.

## Environmental Management Efforts at TOF

### - Environmental Management Structure -

Under the lead of our ISO Promotion Office, TOF established its environmental management system and is now working on projects to reduce the environmental load while complying with related laws and regulations in China. In 2006, TOF was commented by Foshan City as an exemplary corporation in recognition of its distinguished work to suppress environmental pollutants, maintain scenery and pursue efficient use of resources. At present, TOF is working on reducing chemical substances and using less electricity, water and copy paper. Also, TOF plans to work to further reduce waste and CO<sub>2</sub> emissions from manufacturing operations while promoting recycling.



Environmental Management Structure

### - Environmental Considerations in 3rd Construction Stage -

Amid rapid economic growth in the past decade, electricity shortages have become a serious social problem in China including Guangdong where TOF is located.



Inside TOF after the 3rd phase construction work

During the summer last year, although TOF was not directly affected, electric power failures occurred almost every day in various areas within Guangdong. In some areas, the power supply was even intentionally suspended by schedule in time blocks for a few days each week. The 3rd stage construction work began as Tamron recognized the necessity of measures to address the problem. Tamron employed energy-saving lighting and air-conditioning in designing factory facilities. As a result, compared to a factory of similar scale equipped with conventional systems, the volume of electricity consumed for lighting and air-conditioning has been reduced by 2,735,000 kWh a year, or emissions equivalent to 1,518 tons of CO<sub>2</sub>.

### - Education on Environment -

As an attempt to enhance employee knowledge and environmental consciousness, TOF held a quiz tournament where workers at their worksites vie each other. In this way, our employees learn about environmental issues while enjoying



A scene from ISO Quiz Competition

challenging quiz questions related to environmental issues in general as well as harmful substance management.



External view of Tamron Optical (Foshan)

**- Environmental Considerations in 3rd Construction Stage -**

TOF works on managing chemical substances in products in line with the chemical substance management structure of the Tamron head office. Tamron's "Environment-related Substance Management Regulations" and



XRF Analyzer

"Guidance on Environmental Quality Assurance," as well as special requirements by OEM customers are translated into Chinese to distribute to TOF and material suppliers. In addition, TOF regularly implements environmental quality audits to check if chemical substance management systems are properly established by and maintained at material suppliers. TOF also installed two XRF (X-ray fluorescent) analyzers in 2007 in order to ascertain that production lots are free of cadmium, lead, mercury, sexavalent chrom and bromo<sup>(1)</sup>.

<sup>(1)</sup> Generic name of brominated compounds including PBB and PBDE

**Efforts to Discharge CSR at TOF**

Tamron's CSR mid-term plan declared a policy to start working on CSR management as a group from 2008. In preparation, TOF translated Tamron's "CSR Promotion Guideline" and small booklets into Chinese to distribute to our employees. TOF regularly holds meetings with Tamron's CSR promotion office for discussion, in order to establish a CSR structure that is in line with how we can effectively proceed in China.



CSR Poster

**Efforts to Secure Human Resources Suited to TOF's Corporate Structure**

TOF is a 100% subsidiary of Tamron, and approximately 90% of the management team, including the president and managerial employees, are local residents. To vigorously pursue further localization and develop the skills of engineers and managerial employees, TOF provides opportunities to participate in seminars, technical workshops and educational course held at Tamron's head office and universities in Japan.

**For Motivating Employees**

TOF regularly holds entertainment events so local employees can enjoy working together with fellow workers at TOF. For example, TOF holds a birthday party every month to celebrate workers' birthdays during the month. Also, a sporting event is held each year, providing employees with the opportunity to enjoy basketball games and tug of war competitions between teams from different worksites.

TOF celebrated its 10th anniversary in 2007, holding a cultural festival in commemoration of the special year. All of us at TOF enjoyed the event that included plays, dancing performances and songs by local employees.



A scene of the sporting event (tug of war competition)



Basketball game

# For Pursuing Environmental Risk Management

Tamron works on protecting the environment and ensuring the safety and health of our stakeholders. We aim at sustained growth through work that properly addresses environmental risks that may exercise serious impacts on our business operations.

## Countermeasures against Soil Contamination

### History of Tamron's Soil Purification Operations

#### 2003

Voluntary investigation of groundwater and soil on the premises of the Omiya head office reveals contamination of soil by volatile organic compounds (such as trichloroethylene and tetrachloroethylene) and heavy metal (such as lead and boron) in excess of permissible standard values.

#### 2004

Based on the results from the 2003 investigation, commences countermeasures against increased contamination of groundwater and soil. The countermeasures include

- (i) excavating and removing contaminated soil and building PRB walls<sup>(1)</sup> using iron powder and crushed stones along the border of the premises to prevent contaminated groundwater from spreading,
- (ii) landfill with sound soil and
- (iii) installing pumping/purifying facilities for contaminated groundwater<sup>(2)</sup>.

<sup>(1)</sup>PRB walls – Contaminated groundwater is neutralized with iron powder and purified when passing through the walls.

<sup>(2)</sup>Pumping/purifying facilities – Facilities for pumping groundwater up, gasifying and absorbing pollutants for purification

#### 2005

The work to replace contaminated soil with sound soil completed. The three factories in Aomori confirmed free of soil contamination.

#### 2006

Continues operations to pump up, monitor and gasify (OK) groundwater

### (2) Major Efforts in 2007

Countermeasures to prevent contaminated groundwater from spreading were taken in 2004 as stated above. However, Tamron continues monitoring groundwater to confirm the intended effect of the PRB walls. The results have validated that the quality of groundwater pumped up from monitoring wells around the borderline has improved to a level which does more than meet the environmental standard value. Operations to purify pumped up groundwater were discontinued in 2007 since it was confirmed that the concentration of contaminant was below the specified level.

## To Be Prepared for Emergencies

Evacuation drills and drills for handling harmful chemical substances are carried out every year at the Omiya head office and factories at home and abroad as part of risk management. In addition, fire drills were implemented at the Omiya head office



A Scene of the fire drill

for learning fire fighting in the early stages. As an important obligation of a manufacturer discharging industrial waste, Tamron regularly visits waste disposers and recycling facilities to audit operations and contribute to preventing illegal dumping.

## State of Compliance with Environmental Standards

There were no environmental-related lawsuits in 2007. Our environmental standard values as prescribed by environmental regulations such as the Clean Air Act, the Water Pollution Control Law and the Soil Contamination Control Law and the state of compliance with those regulations as voluntary standard values are as shown in the table below. Tamron was unable to satisfy emissions standards in February 2007 due to polluted and accumulated mud. However, beside this exceptional case, there was no other incident of surpassing standard values in other regulations at the Omiya head office and three factories in Aomori.

### State of Compliance with Environmental-related Laws and Regulations

Standards on	Omiya	Aomori	TOF
Air pollution	–	A	A
Water quality	B	A	A
Soil contamination	A	A	–
Ambient noise	A	A	A
Vibration	A	–	–
Bad odors	–	A	–
Harmful substances	A	A	–

A:Satisfactory B:Partly Satisfactory

## For Establishing Comprehensive Risk Management Structure

In 2007, as part of our CSR work, we created a risk management manual, establishing our risk management structure. From 2008 and beyond, we plan to work on preventing environmental and all other risks by determining and managing the possibilities of risks involved in our business, while strengthening our risk management structure for ensuring speed recovery in the event that any risk actually materializes as a problem.

## Independent Third Party Assurance Report



### Hideki Murai

#### Academic Background:

Completed the doctoral program, the Graduate School of Nihon University on March 1992.

Master of Commerce, Nihon University on March 1988.

#### Position:

Professor, the College of Commerce, Nihon University (since 2004),  
Visiting professor, University of Lodz, Poland in September 2006  
Visiting researcher, University of Waterloo, Canada from 1996-1998.  
Adviser of the Ministry of Environment

#### Research Theme:

Management and accounting problems concerning greenhouse effect gas emissions rights.

At present, a leading authority in the field of validating environmental performance data as well as academic research of handling greenhouse effect gas emissions rights. Also, many CSR reports with sustainable growth ratings used by the Sustainable Management Forum of Japan are highly evaluated.

#### Major Papers:

"Measures for Renewable Energy and Environmental Issues", Accounting Research, Vol.21, Research Institute of Accounting, Nihon University, March 2007.

"Emissions Rights and Accounting", Environmental Accounting: Theory and Reality (2nd edition), written and edited by Susumu Katsuyama, Chuo Keizaisha, July 2006.

"Legal and Accounting Problems of CO<sub>2</sub> Emissions Rights and Overseas Afforestation", Accounting Research, Vol.19, Research Institute of Accounting, Nihon University, February 2005.

"Construction of a Sustainable Society and Accounting", in Structure and Transformation of Corporate Accounting, written and edited by Osami Narita, Minerva Shobo, February 2006

"Accounting Standards for Transactions of CO<sub>2</sub> Emissions Rights in America and Examination and Implications, Accounting Research, Vol.18, Research Institute of Accounting, Nihon University, November 2004.

Hideki Murai, Yoshiro Kimizuka, "Over the waves: accounting flowed into Japan", Zeszyty Teoretyczne Rachunkowosci, The Science Council of The Association of The Accountants in Poland, January 2007, Warsaw.

#### Academic Society:

Japan Accounting Association, Accounting Theory Association (trustee), Japanese Association for Research in Disclosure (standing trustee), Japan Corporate Social Accounting and Reporting Association (trustee), American Accounting Association

### I . Stable axis and focus

The social mission of Tamron is "to create the eyes of industry and contribute to the economy, society and environment". The corporation established the Rules for Social Contribution in January 2008. These do not mean to drive the mecenat activities as we have seen in big businesses but to help the society furnish the lenses of high quality which are based, to the end, on the business activities. In short, Tamron intends to help the society on the basis of "monotsukuri" or making things which forms the foundation of management. In order to attain the object, it is

important, in my opinion, to be continuous enhancement of techniques and the training of members.

I fear the corporation may be confronted with the possible M&A as it has high technological power and was one of the listed companies on the first part of Tokyo Stock Exchange since 2006. But, we believe that the Japanese economy has sustained by the enterprises having high technological potential headed by Tamron. We do hope that you will make every effort and will spread your intention that the various stakeholders may understand.

### II . The First Year of CSR

~ The design of Tamron lies in this year.~

Year by year the corporation has evolved: first is "Environment Report" in 2004, "Environmental & Social Report" in 2006, and "CSR Report" from 2008 which was written together with shareholder's meeting. It may be epoch-making among the Japanese business circles. It contains "Dialogue with Stakeholders" for the first time. The necessity of dialogue implies, as it were, the stakeholder's response to the corporation field or the request for the betterment of management. Therefore the dialogue is indispensable for CSR management.

The task of CSR management will be exemplified as follows. 1. Measures against global warming accompanied with expansion of the plants in China. (switching from CO<sub>2</sub> intensity target to overall reduction target) 2. Interlocking between the traditional technical-intensive production with the digitalized plant operation. 3. the discussion as to the need of validation by the third party and how to realize the calculated figures which may be the question to be solved in future.

We expect that Tamron will control itself through "monotsukuri" and adhere to the axis focusing always on the higher goal in order to be "the Social Institution".

## Editor's Postscript



Editors at Omiya head office

In issuing this report for 2008, we changed the title to "CSR Report". In 2007, we established our CSR policy, action declaration and action codes for promoting our CSR management, making 2007 the first year of our CSR management.

One of our important tasks for this year and beyond is to ensure management of the environmental load at TOF in Foshan, China as pointed out in third party comments. We plan to deploy CSR themes in Japan and at overseas subsidiaries including TOF. Therefore, 2008 will practically be the 1st

CSR year for Tamron. We wish Tamron to continue to be a company capable of contributing to society by reflecting the opinions of our stakeholders in our CSR management. We would greatly appreciate hearing your opinions and suggestions.



Editors at factories in Aomori



Editors at Tamron Optical (Foshan)



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