

# CSR Report of Mishima Plant

**Business activities:** Production of tires for passenger cars, racecars and light trucks  
**Total site area:** 112,000 m<sup>2</sup>  
**Number of employees:** 578 (as of April 2010)  
**Location:** 8-1 Minami-Futsuka-machi, Mishima City, Shizuoka 411-0832, JAPAN  
 Tel: +81-55-975-0800



## Message from the General Manager



Masaki Noro

The Mishima Plant is located amid natural surroundings in an area where Mt. Fuji soars on the north side of the plant and the Izu Peninsula lies to the south. The plant produces primarily tires for passenger cars. In order to reduce adverse environmental consequences, we put top priority on reducing industrial waste and greenhouse gas emissions, and focus in our daily activities on improvements to the production process and avoiding wasteful use of energy. In order to be a plant welcome in Mishima City, a city that has declared its commitment to

advanced environmental and dietary education, we have promoted communications with people in local communities and municipal administrations. As part of the companywide "YOKOHAMA Forever Forest" project, we had a tree-planting ceremony in October 2009 with the participation of local residents. We also provided factory tours for

elementary school students and practical work experience for junior and senior high school students, and hosted a Family Environment Education Day during the school summer holiday period in conjunction with the Environment Conservation Association of Shizuoka Prefecture. In all, a total of 1,300 visitors came to the Mishima Plant during FY2009. As part of our effort to improve employees' environmental awareness, we encourage them to take "eco" certification exams, and participate in community clean-ups (cleaning rivers and the area around the plant) and the "Ecocap Movement" (collecting PET-bottle caps). We have signed an agreement with the City of Mishima to provide fire brigade personnel for specific duties. Under the agreement, which takes effect from FY2010, in the event of a fire or natural disaster in the municipality a team of nine employees will be excused from their work duties to serve on the fire brigade assisting with fire-fighting and security duties. By promoting and expanding these activities, we are striving to be a plant contributing to environmental improvement, dietary education and regional development.

## Environmental Initiatives

### Environmental Policy in FY 2010

- (1) To exert world-class strengths in technologies for protecting the environment, the Mishima Plant of Yokohama Rubber works toward environment-friendly measures in all business activities.
- (2) We aim to be a model factory which is respected and trusted and which sets the standard for production operations. To this end, we strive to improve our environmental management systems and take a proactive approach to preventing environmental pollution and sensory nuisances and contributing to the environment.
- (3) We promote resource and energy conservation as means to combat global warming and to protect resources. In addition, resources are more effectively used by separating waste by type, and we continue our efforts for zero emissions, that is, to reduce landfill waste.
- (4) We observe applicable laws and regulations, and agreements on environmental preservation.
- (5) We have defined an environmental purpose, set environmental targets, and are working on them systematically. We review the policy, purpose and targets regularly and revise them when necessary.
- (6) We educate and enlighten all employees at the plant so that they thoroughly understand the policy and act accordingly.
- (7) Respecting the "water and greenery and culture" of Mishima City – an environmentally advanced city – we actively work to create a "Forever Forest," a project of Yokohama Rubber, and emphasize dialogue with ministries, agencies, and local residents.
- (8) This commitment has been declared to the public.

## Environmental risks

Residents from the surrounding areas are asked to register as environment monitors. They provide us with periodical monitoring information that we use to develop prior prevention strategies for environmental risks.

All employees are expected to have a basic understanding of the principles of environmental management, a high level of environmental awareness, and an open and inclusive approach to environmental issues. To this end, we have introduced an environmental testing program called the Eco Test. So far a total of 51 applicants have passed the Eco Test, including 17 in FY2009. The successful applicants help to boost the environmental credentials of the Mishima Plant by getting involved in a range of activities from a broad-based perspective.

## PRTR substances

(Unit: tons /year)

Designated No.	Specified chemical substance	Amount to treat <sup>1</sup>	Emission <sup>2</sup>	Transfer <sup>3</sup>	Safety Evaluation: IV-2			
					Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
63	Xylene	1.577	1.577	0.000		15.77	A	1,577
115	N-cyclohexyl-2-benzothiazolesulfenamide	236.880	0.000	0.805				
198	Hexamethylenetetramine	18.288	0.000	0.062				
227	Toluene	1.046	1.046	0.000	C	10.46	D	1,046
273	n-butyl benzyl phthalate	1.314	0.000	0.005				
282	N-(tert-butyl)-2-benzothiazolesulfenamide	105.200	0.000	0.358				
307	poly(oxyethylene) alkyl ether	1.351	0.000	0.005				
	<b>Total</b>	<b>365.656</b>	<b>2.623</b>	<b>1.235</b>		<b>26.23</b>		<b>1,578.0</b>

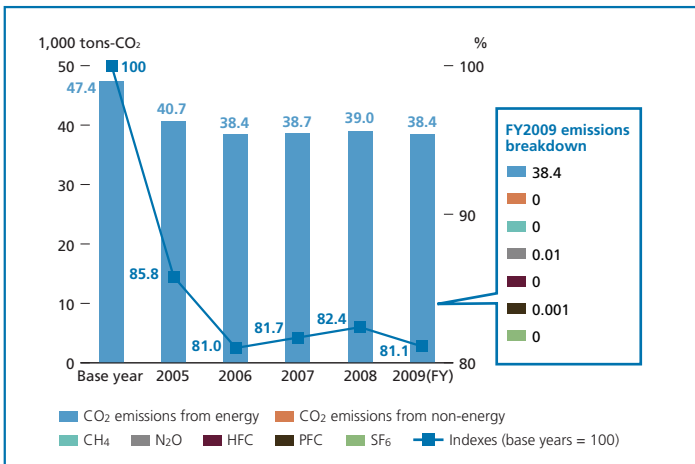
\*1: Amounts of 1 ton or more are listed (excluding dioxin). As for substances designated as Class 1 Specified Chemicals such as benzene, amounts of 0.5 tons or more are listed.

\*2: Emission = Air + public water + soil

\*3: Transfer = Waste + public sewage

## Environmental Initiatives

### Combined greenhouse gas emissions and their indices (base years = 100)



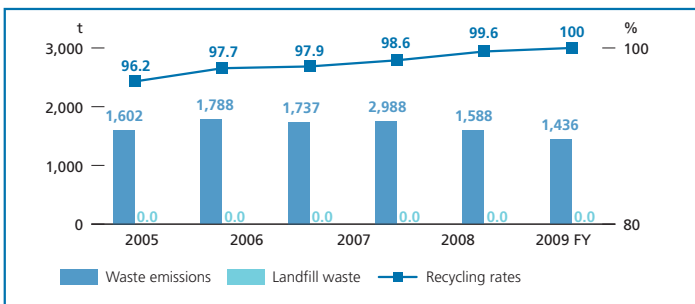
\* Base year is defined as 1990 except for HFC, PFC and SF<sub>6</sub>, where the base year is 1995 as per the Kyoto Protocol.

\* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry). Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment). Calorific heating values and emission coefficients have been revised in accordance with March 31, 2010 amendments to the Act on the Promotion of Global Warming Countermeasures.

### Waste output

Total zero emissions has been achieved since FY2004.

100% recycling and reuse of resources was achieved in FY2009.



### Air-quality-related data (major facilities)

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Mishima Plant Cogeneration	Nitrogen oxide density (ppm)	150	50	21	25	19
	Soot and dusts density (g/m <sup>3</sup> N)	0.1	0.03	Less than 0.001	Less than 0.001	Less than 0.001
Mishima Plant Boiler	Nitrogen oxide density (ppm)	150	100	23	35	11
	Soot and dusts density (g/m <sup>3</sup> N)	0.1	0.05	Less than 0.001	Less than 0.001	Less than 0.001

\* According to the Air Pollution Prevention Law and instruction values set by Mishima City. Again no violations of regulations in FY2009.

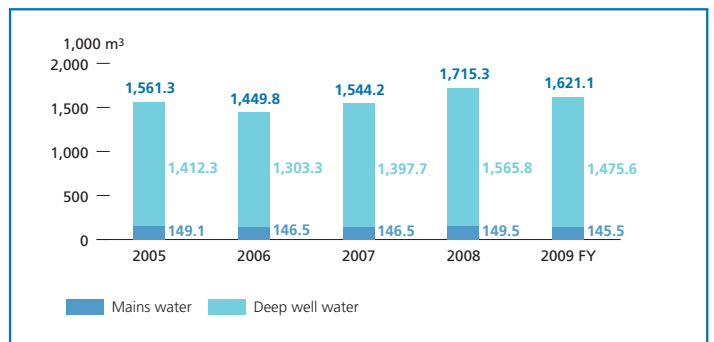
Incinerators were phased out on December 1, 2001.

### Water-quality-related data (major facilities)

Drain	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Mishima Plant	PH	★5.8-8.6	6.2-8.2	7.7	8.0	7.2
	BOD density (mg/l)	15	8	1.4	3.9	Less than 0.5
	COD density (mg/l)	★120	60	1.7	4.8	1.1
	SS density (mg/l)	20	15	1.5	8.0	Less than 1.0
	Oil density (mg/l)	2	1.5	Less than 1.0	Less than 1.0	Less than 1.0

\* Agreement on Environmental Protection with Mishima City; Star marks are according to the Water Pollution Prevention Law. Again no violations of regulations in FY2009.

### Water consumption



## Safety Initiatives

### Safety Policy in FY2010

#### Basic policy

We strive to provide a safe, healthy and pleasant working environment predicated on the fundamental principle of corporate operations regarding the health and safety of all employees and other workers on site. We use appropriate occupational health and safety management systems as the basis for ongoing improvement through company-wide health and safety programs predicated on the 3 S's.

#### Action guidelines

- (1) We use risk assessment of equipment and processes to reduce risks and create a better, safer workplace.
- (2) We strive to comply with the relevant occupational health and safety laws and regulations as well as company rules and standards.
- (3) We provide health and safety training programs designed to inculcate a safety-first mindset in our workers.
- (4) We strive to create a pleasant and comfortable workplace environment designed to minimize employee fatigue and stress.
- (5) We strive to promote good communication predicated on factory managers talking directly with operators.
- (6) We encourage our affiliated and partner companies to operate in accordance with this Policy.

## Working with Local Communities

### Community feedback and the Company's response

We have taken steps to reduce noise levels outside the factory area by erecting general noise barriers and fitting silencers and the like to specific noise sources. As a result, we have managed to reduce noise levels significantly.

### Participating in regional clean-ups

A total of 72 employees participated in regional clean-up activities, including a "Volunteer Activity to Clean Rivers in Mishima" organized by the Mishima Environmental Preservation Council in May, "Cleaning Seseragi Routes" in June, and "Cleaning the Riverbed of the Oba River" in September, in addition to routine cleaning of the Goten River near the plant.

### Use of facilities by community groups

The sports ground and gymnasium on the factory site were used by external community groups on 742 occasions during 2009. The gymnasium was used for a domino toppling tournament for elementary school students in August, and for a meeting of the Shizuoka Federation of Support Groups for Persons with Major Disabilities in October.



Domino toppling tournament

**Plant tours and interns from high schools**

As part of our efforts to support education, we also accept students from local elementary and junior high schools for plant tours and student interns from local high schools. In FY2009, we hosted plant tours for local residents 87 times, for 1,322 visitors.



Family Environment Education Day



Practical work experience for junior high school students

**Contributing to the region—Fire Brigade team**

The Mishima Plant has entered into an agreement with the City of Mishima to provide fire brigade personnel. Under the agreement, nine employees will perform specific tasks alongside members of the municipal fire brigade. The nine employees are excused from their work duties to help with fire-fighting and security duties in the event of a fire or natural disaster in the municipality. The nine employees perform the following tasks:

- Fire-fighting duties in the event of a fire in the Mishima Fire Brigade No. 2 Unit region occurring during the weekday lunchtime period, when there are fewer personnel on hand at the fire brigade;
- Assistance with security and restoration efforts in the aftermath of a natural disaster or other calamity, where requested.

The agreement represents the first such arrangement in the prefecture whereby a private-sector company is engaged to perform specific tasks. As such it has attracted considerable interest and has been reported widely in the media.

The Mishima Plant has been designated as a Fire Brigade Affiliated Organization.



The Fire Brigade team



Certificate recognizing the Mishima Plant as a Fire Brigade Affiliated Organization



The second phase of planting took place on October 31, 2009. A team of employees coordinated the 572 volunteers, including employees and their families and local residents, in planting 6,675 seedlings of 52 different species including sweet acorn, evergreen oak and camphor. Some 3,870 of the planted seedlings were carefully nurtured at the Mishima Plant.



**Employee perspective: Yoshiyuki Teramoto**

Every day from July to October I helped out with cutting and carrying logs. It was tremendously tiring work, but servings of barley tea and helpful remarks from people in the community were a great encouragement. I felt first-hand how people around me were helping as I worked.



**Employee perspective: Tadamasa Kawaguchi**

I've spent more than 50 days on this project including preparation time. It's given me a better appreciation of the environment and I've realized that I really can make a difference. These days I'm sorting my waste and taking my own shopping bags to the supermarket.



**Employee perspective: Masumi Suzuki**

The Forever Forest is called "thousand-year forest" in Japanese, and just as the name says, it takes a long, long time for a tiny acorn to grow into a towering great tree. I love to imagine how the factory will eventually be surrounded by a wall of green, and I'm sure everyone in the area will do their bit to make sure our dream becomes a reality.