CSR Report of Mie Plant

Business activities: Production of tires for trucks and buses, light trucks and passenger cars
Total site area: 264,000 m²
Number of employees: 940 (as of April 1, 2010)
Location: 1038 Takabuku, Misono-cho, Ise City, Mie 516-8530, JAPAN
Tel: +81-596-28-3151

Message from the General Manager

Yoshito Mochinaga

The first phase of planting in the YOKOHAMA Forever Forest project took place in May 2008. In 2010, we will undertake the third phase of the project. The three phases will see a combined total of 16,200 seedlings planted.
We are continuing to make steady progress in our campaign to reduce on-site energy consumption, including installation of over 25,000 thermal insulation sheets. We are working to get all employees involved in the campaign, which has had a major impact in reducing CO_2 emissions and energy consumption levels as well as reducing the incidence of factory fires and incidents.
As part of our commitment to working more closely with local communities, we have been holding biannual environment discussion meetings for the past four years. We have also started up a blog where residents can report on environmental issues such as noise and odors. In this way, we are striving to develop stronger ties in the region.
The Mie Plant participates in environmental programs in the city of Ise such as environmental fund-raising campaigns and clean-up days along the Futami coast and the Hinokijiri-gawa river. We believe that companies have a duty to contribute to the environment. To this end, our employees have united to provide the driving force for environmental improvement in the Shinto-Ise region.

Environmental Initiatives

Environmental Policy in FY 2010

Our goal is to be a plant asserting world-class strengths in technologies for protecting the environment, according to the norm of "dealing fairly with society and valuing harmony with the environment," which is declared in the management policy of the company.

(1) The Mie Plant works on measures taking the environment into consideration in all areas of our business.
(2) In order to remain trusted by the community, we will strengthen our environmental management system and continue our efforts to prevent environmental pollution and improve the environment.
(3) We strive to reduce emissions of greenhouse gases that contribute to global warming.
(4) We strive to reduce waste output and promote recycling and reuse of resources.
(5) We observe applicable laws and regulations, and agreements, and carry out environmental preservation activities accordingly.
(6) Embodying this policy, we have defined an environmental purpose, set environmental targets, and are implementing the policy systematically.
(7) We educate and enlighten all employees at the Mie Plant so that they fully understand the policy, and improve their own awareness and actions.
(8) We strive to harmonize with and fuse into the natural environment of Ise City, where Ise Shrine is located, and to thrive together with local residents.
(9) This commitment is released to the public upon request.

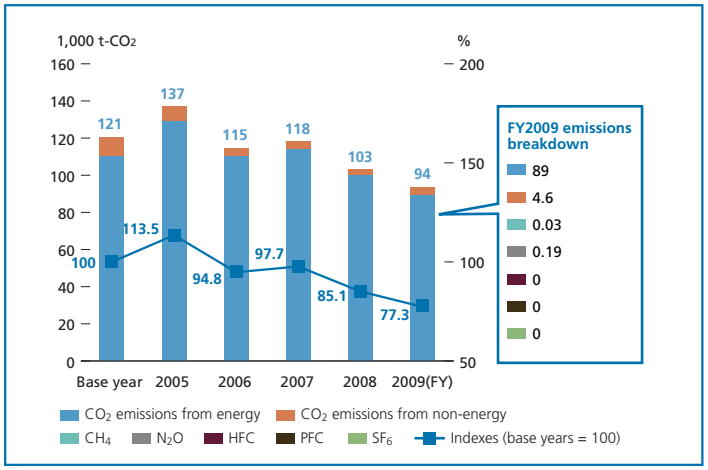
PRTR substances

(Unit: tons /year)

Desig-nated No.	Specified chemical substance	Amount to treat*1	Emission *2	Transfer *3	Safety Evaluation: VI-2 Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosys-tem)	Annual Converted Emissions (effect on ecosystem)
40	Ethylbenzen	1.681	0.408	0.000	C	4.08	A	408
63	Xylene	8.003	1.407	0.000	C	14.07	A	1,407
100	Cobalt and its compounds	23.059	0.000	0.231				
115	N-cyclohexyl-2-benzothiazolesulfenamide	112.420	0.000	1.116				
**179	Dioxin	4.586	0.026	4.560				
227	Toluene	10.118	1.743	0.000	C	17.43	D	1.743
253	Hydrazine	1.337	0.000	0.000				
282	N-(tert-butyl)-2-benzothiazolesulfenamide	422.480	0.000	2.976				
	Total		3.558	4.323		35.58		1,816.743

*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

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



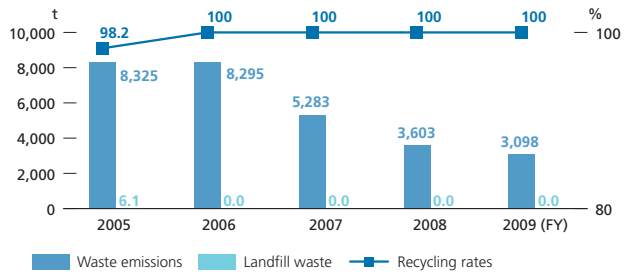
* Base year is defined as 1990 except for HFC, PFC and SF6, where the base year is 1995 as per the Kyoto Protocol.
* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and 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.

Air-quality-related data (major facilities)

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Mie Plant Cogeneration 1	Sulfur oxide emissions (m³N/h)	3.4	0.1	Less than 1	Less than 1	Less than 1
	Nitrogen oxide density (ppm)	100	90	71	75	58
	Soot and dusts density (g/m³N)	0.05	0.05	Less than 0.001	Less than 0.001	Less than 0.001
Mie Plant Cogeneration 2	Sulfur oxide emissions (m³N/h)	3.4	0.1	Less than 1	Less than 1	Less than 1
	Nitrogen oxide density (ppm)	100	90	63	68	58
	Soot and dusts density (g/m³N)	0.05	0.05	Less than 0.001	Less than 0.001	Less than 0.001
Mie Plant Boiler 3	Sulfur oxide emissions (m³N/h)	1.0	0.1	Less than 1	Less than 1	Less than 1
	Nitrogen oxide density (ppm)	130	120	83	83	83
	Soot and dusts density (g/m³N)	0.1	0.05	Less than 0.001	Less than 0.001	Less than 0.001
Mie Plant Boiler 4	Sulfur oxide emissions (m³N/h)	1.5	0.1	Less than 1	Less than 1	Less than 1
	Nitrogen oxide density (ppm)	130	120	75	78	72
	Soot and dusts density (g/m³N)	0.1	0.05	Less than 0.001	0	Less than 0.001
Mie Plant Drying furnace 1	Sulfur oxide emissions (m³N/h)	3	No data measured due to suspension of operations at the facility			
	Nitrogen oxide density (ppm)	250				
	Soot and dusts density (g/m³N)	0.1				
Mie Plant Drying furnace 2	Sulfur oxide emissions (m³N/h)	3				
	Nitrogen oxide density (ppm)	250				
	Soot and dusts density (g/m³N)	0.1				
Mie Plant Incineration	Sulfur oxide emissions (m³N/h)	6.2	5	2.7	4.6	1.8
	Nitrogen oxide density (ppm)	250	125	70	75	64
	Soot and dusts density (g/m³N)	0.3	0.15	Less than 0.001	Less than 0.001	Less than 0.001

* Accordance to the Air Pollution Prevention Law and the Environmental Pollution Prevention Agreement with Ise City.

Waste output

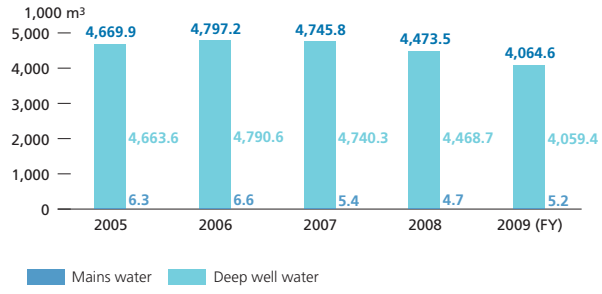


Water-quality-related data (major facilities)

Facility	Substance	Regulation	Self-imposed control value	FY2009 result		
				Average	Maximum	Minimum
Mie Plant Drain 1	PH	6.0-8.0	6.5-7.7	7.2	7.3	7.1
	BOD density (mg/l)	20	10	1.5	2.3	0.8
	COD density (mg/l)	20	10	1.9	2.9	0.9
	SS density (mg/l)	40	20	1.0	1.0	Less than 1
	Oil density (mg/l)	2	1.6	Less than 0.5	Less than 0.5	Less than 0.5
Mie Plant Drain 2	PH	6.0-8.0	6.5-7.7	7.4	7.6	7.3
	BOD density (mg/l)	20	10	1.2	1.9	0.6
	COD density (mg/l)	20	10	1.4	1.6	1.1
	SS density (mg/l)	40	20	1.2	2.0	Less than 1
	Oil density (mg/l)	2	1.6	0.7	0.8	Less than 0.5

* Accordance to the Environmental Pollution Prevention Agreement with Ise City.

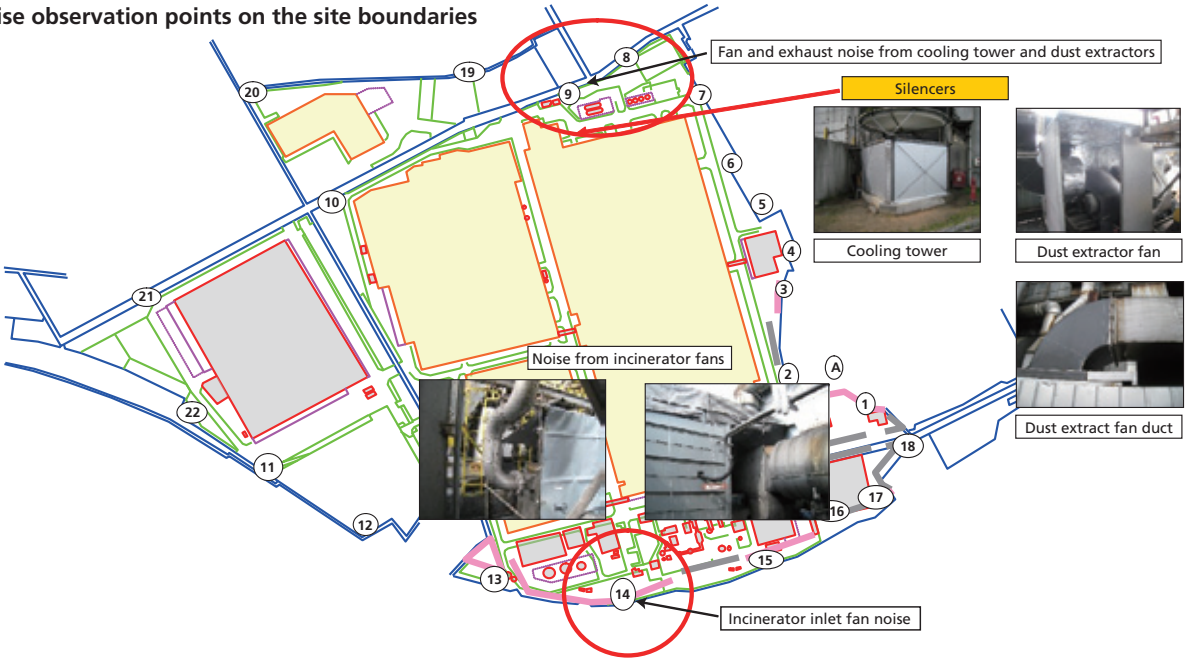
Water consumption



Reducing noise and vibration

Noise and vibration levels are monitored regularly at two points close to the boundaries of the site area. Silencers have been installed throughout the plant to prevent disturbance to local residents.

Noise observation points on the site boundaries



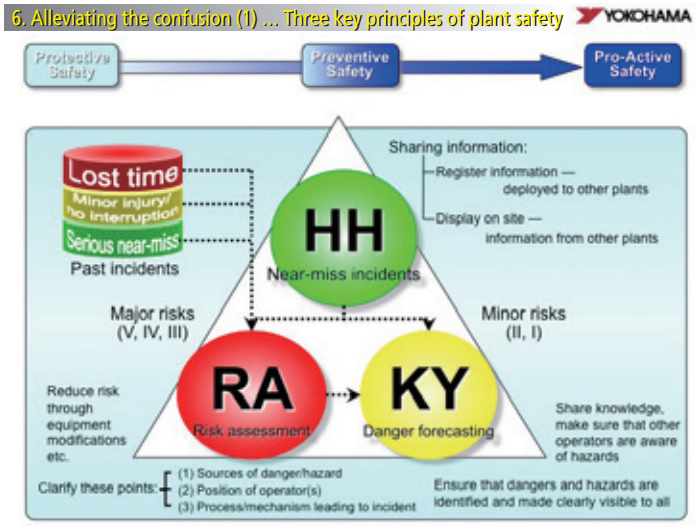
Safety Initiatives

Occupational health and safety

Yokohama Rubber Group declared 2007 the start of an all-new safety program designed to align safety policies and procedures at all offices and production facilities in accordance with a single unifying set of principles. This included a zero danger target to be achieved through enhanced corporate management based on OSHMS. The centerpiece of the new safety campaign is a proactive approach to risk reduction in relation to both equipment and operators, as shown in Figure 1. This approach involves analysis of past incidents and near-miss accidents at production facilities and classification into major and minor risks. Major risks are subject to risk assessment and equipment safety modifications are implemented accordingly, while minor risks are addressed through the KY safety program. In this way, we are working to implement a proactive approach to safety in the workplace.

In FY2009 there were four workplace incidents at the Mie Plant, all directly attributable to unsafe actions by operators. We are working to improve safety awareness through one-on-one safety training as well as better communication with operators (including dedicated sessions together with the factory manager). We have also instituted periodical evaluation and radar chart assessment of operators and processes based on specific evaluation standards, which are used to identify deficiencies and weaknesses. In combination with the safety awareness programs involving all employees, we are committed to ongoing analysis of near-miss incidents, danger prediction and risk assessment.

Figure 1



Emergency response procedures

In order to ensure that the Mie Plant is prepared for any eventuality, we hold monthly meetings in accordance with the annual disaster prevention and emergency response program.

The Mie Plant has its own fire brigade, which is divided into teams including fire extinguisher and fire truck teams. The fire-fighting team holds regular small-scale training sessions as well as two major disaster drills per year that involve the entire factory. Every July we hold a combined training drill with the Ise Fire Department to practice fire-fighting and rescue techniques. In FY2009 we conducted a major disaster training drill based on the scenario of fire, building destruction and injuries caused by a severe earthquake measuring 6+ on the Japanese scale. It was a high-tension scenario requiring the rescue of several operators pinned under collapsed buildings.

Working with Local Communities

Community feedback and the Company's response

Feedback from the community is forwarded immediately to the environmental officer and factory manager who are responsible for taking appropriate action.

Forging closer ties with the local community

The following activities were undertaken in FY2009:

- Environment discussion meetings with local residents

  Two environment discussion meetings were held during FY2009 involving representatives from local resident associations and environmental officers and councilors from the City of Ise.

  First meeting: June 28, attended by 28 residents

  Second meeting: November 29, attended by 24 residents

We have taken action in response to feedback concerning particulate emissions, noise, odors, and truck traffic (including road etiquette and engine idling).

Factory inspection during the first environment discussion meeting

Second environment discussion meeting

- Traffic safety: employee volunteers contributed a total of 450 hours as school crossing supervisors

School crossing supervisor

- Tanabata Clean-up of the Seta River on July 5 — 271 participants
- Clean-up of JR railway clearings — 200 hours
- Beautification of the factory surrounds — 200 hours
- Matsunase coast clean-up day (Prefectural Residents' Day on April 18 — 200 volunteers

Cleaning up the factory exterior

Clean-up day on the Matsunase coast

Contributions and donations to local events and projects

In FY2009, the Mie Plant provided financial and other assistance to the following events and projects.

Ise Shrine fireworks display (support)
Ise Noh performances at shrines
Kanname Hoshukusai Festival at Ise Shrine (support)
Red Cross disaster relief program (donation)
Red Feather Community Chest Movement
Special member of the Ise Shrine Volunteer Group (membership fees)
Other events and projects
Total: ¥3.2 million

YOKOHAMA Forever Forest Project

Following the successful first phase of the YOKOHAMA Forever Forest project in May 2008 in which around 5,500 new trees were planted, we held the second phase on June 13, 2009. Around 500 employees and their families planted some 3,800 seedlings spanning 42 varieties including beech, camphor and Japanese oak. Employees are the driving force in the project, which involves collecting acorn seeds in the local area to produce seedlings. All 3,800 seedlings planted during the second phase were raised at the Mie Plant.

Employee perspective: Haruyoshi Suketa (Mie Plant)

This was my first time participating with my daughter. Working in a relaxed atmosphere together with numerous friends, she really seemed to enjoy planting the saplings. It was a great opportunity to talk leisurely about the environment as parent and child.

From the Project Office: Hisataka Okada (Mie Plant)

In the time since we started this project we've encountered a number of challenges, from the painful realization of how difficult it is to get employees to volunteer for this kind of project, to doing heavy labor in the scorching sun, as well as the tumult that ensued after we broke some plumbing when building a mound. However, overcoming these difficulties made me feel like Tokugawa Ieyasu when he succeeded in uniting all of Japan under one rule. As we continue to expand there will be many challenges, but I look forward to developing forests with the help of all our employees.