CSR Report of Shinshiro Plant

Shinshiro Plant	Business activities:	Production of tires for passenger cars
	Total site area:	221,000m^2
	Number of employees:	753 (as of December 2011)
	Location:	1 Furuyashiki, Noda-Aza, Shinshiro City, Aichi 441-1343, JAPAN
Shinshiro-Minami Plant	Business activities:	Production of tires for passenger cars
	Total site area:	88,300m^2
	Number of employees:	297 (as of December 31, 2011)
	Location:	10-24 Oiri, Hitokuwada-Aza, Shinshiro City, Aichi 441-1338, JAPAN

Shinshiro Plant

Shinshiro-Minami Plant

Contact for consultation and complaints:
General Affairs Section Tel: +81-536-22-2251 Fax: +81-536-23-0353

Message from the General Manager

Masaki Noro

The Shinshiro Plant strives to conduct plant operations, considering the environment as a core plant of Yokohama Rubber, aiming to be "a company having world-class strengths in technologies for protecting the environment" While the plant manufactures BluEarth, low fuel consumption tires and environmentally friendly products, plants seedlings are grown by employees around the plant in "Forever Forest Project" activities and employees carry out environmental preservation activities with people in local communities through furnishing about 14,000 seedlings and instructions on planting at the request of local communities. We have also started efforts at biodiversity preservation by making our own biotope on the premises of the plant. In 2012, we will further develop activities and start a biodiversity survey to survey the relationship between the plant and living creatures and we will promote this by exploring what the plant can do, aiming at preservation and co-prosperity.

The plant signed an environmental preservation agreement with Shinshiro City, where the plant is located, and we conduct water quality inspections of plant waste water and measurements of noise to give consideration to the living environment as a member of the local community.In July 2011, the plant was newly registered as an office participating in disaster prevention and if a large scale disaster occurs, we will set up an evacuation site on the premises of the plant to provide cooperation through our plant personnel and facilities. We will continue to contribute to the region as a member of the local community.

We also open the plant to students of elementary, junior high and senior high schools in neighboring areas and operate the plant close to the region by introducing efforts of the plant and receiving various opinions through informal discussions with the head of the wards in the region.

Advancement of Environmentally Friendly Management

Environmental management

In March 2011, we received a renewal inspection of ISO14001. In October 2011, we conducted an internal audit of ISO14001 with 56 internal auditors.

Yokohama Rubber Corporation, Shinshiro Plant, Environmental Policy

The Shinshiro Plant will lead Yokohama Rubber Corporation aiming to be "a company having world-class strengths in technologies for protecting the environment" as the core plant.

(1) We contribute to happiness and prosperity through manufacturing products in which spirit and technology exist and continue to practice "prevention of environmental pollution" and "improvement in protecting the environment" by management in advance.

(2) All departments and affiliated companies of the Shinshiro Plant formulate and maintain mechanisms and practice continued improvement of environmentally sound management in accordance with their own established environmental management system.

(3) We comply with related laws and regulations, charters, agreements and contracts, etc., and deepen communications with all related parties and make efforts to contribute to local communities and society.

(4) In order to protect such limited global resources as energy, raw materials and water, etc., we practice actions to prevent waste, promote 3R* and contribute to the realization of a low carbon and recycling society.

* Reduce, reuse and recycle

(5) In order to realize the policy, we set out environmental objectives and targets and deliberately implement these and securely advance objectives and targets by visualization of the results. Policy, objectives and targets shall be regularly reviewed and revised as appropriate.

(6) We value living creatures in the Shinshiro region, located along the Toyogawa River having abundant water and make efforts at biodiversity conservation.

(7) Keeping harmony and fusion with the endowed nature of Shinshiro City; <Port in the Mountain>, through "YOKOHAMA Forever Forest Project" activities, we aim at contributing to the region and co-existence of nature and people by planting activities and furnishing seedlings.

(8) We provide education and enlightenment to make thoroughly known the policy so that everyone working at the Shinshiro Plant understands the policy and acts.

(9)The policy will be published.

January 1, 2012

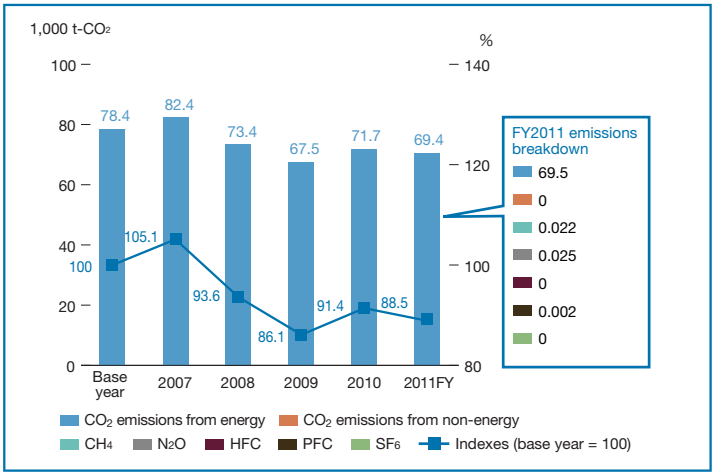
Masaki Noro

Yokohama Rubber Corporation,
General Manager, Shinshiro Plant

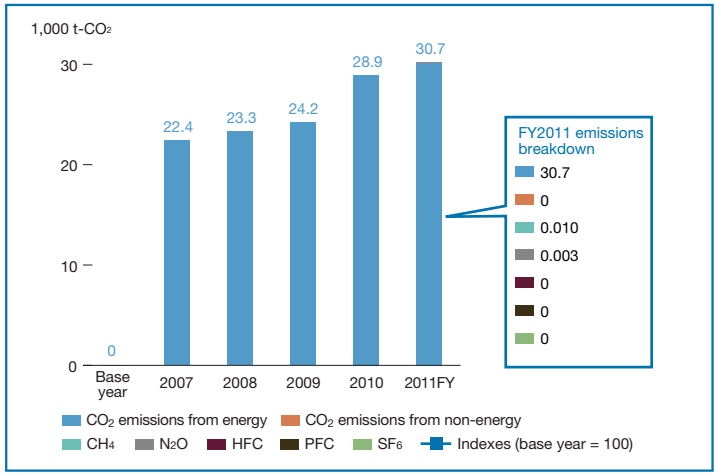
Environmental Data and Explanation

■Reduce greenhouse gas emission

Shinshiro Plant



Shinshiro-Minami Plant



* Base year is defined as 1990 except for HFC, PFC and SF6, where the base year is 1995 as per the Kyoto Protocol.

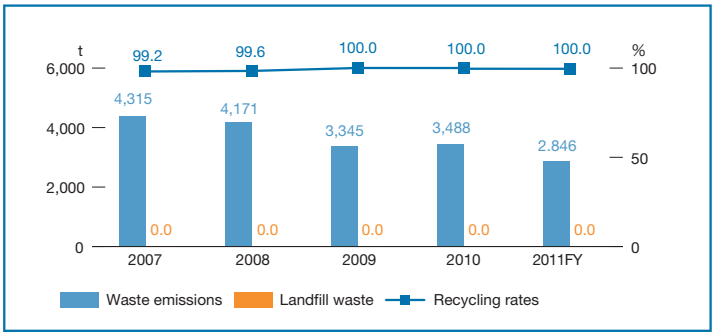
* Greenhouse gases (GHG) calculated in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions (Ministry of the Environment, Ministry of the Economy, Trade and Industry). Note that GHG emissions associated with purchased power in FY2009 were calculated using the table of Emission Coefficients by Power Company (Ministry of the Environment).

* In FY2011, as the closing of accounts period was April to December, it is counted from January to December, by duplicating the data from January to March.

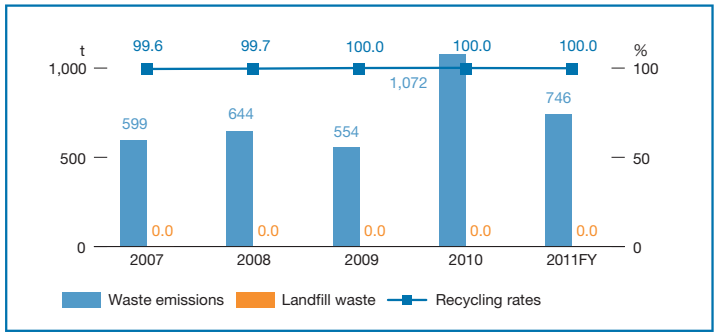
■Effective use of resources/ Reduction of waste

・Waste output

Shinshiro Plant



Shinshiro-Minami Plant

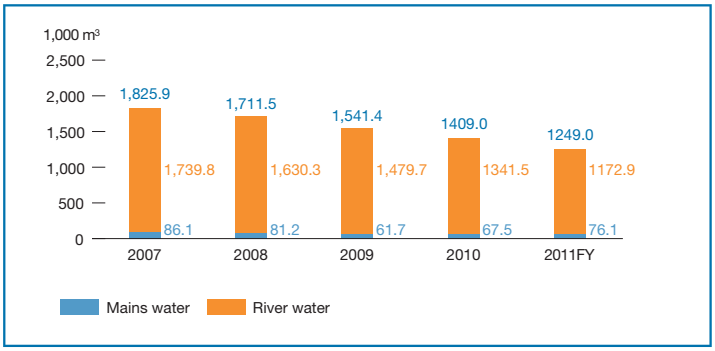


・Use of water

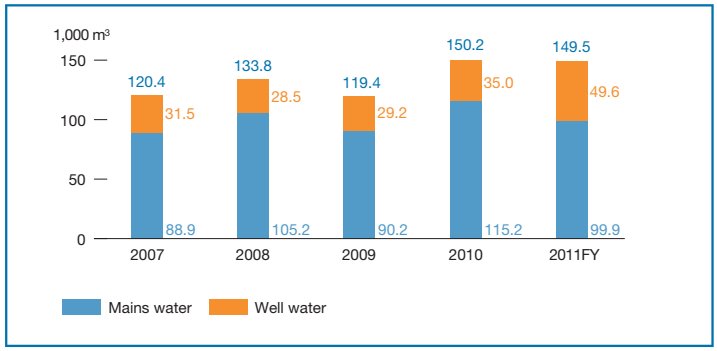
Shinshiro Plant: uses city waterworks and collects industrial water from the Toyogawa River and Nodagawa River, a branch of the Toyogawa River.

Shinshiro-Minami Plant: uses city waterworks and collects industrial water from well water.

Shinshiro Plant



Shinshiro-Minami Plant



Advancement of Environmentally Friendly Management

■Measures for discharge into water, air and soil

• Data related to water contamination

Shinshiro Plant: twice a month, monitors twenty items of water contamination within self-regulated targets set under the charter of and agreement with Aichi Prefecture and Shinshiro City.

Drain	Substance	Regulation	Self-imposed control value	FY2011 result		
				Average	Maximum	Minimum
Drain 1	PH	5.8～8.6	6.5～8.0	7.4	7.9	7.2
	BOD density (mg/l)	20	up to 14.0	2.7	5.9	1.1
	COD density (mg/l)	20	up to 14.0	3.1	4.8	2.2
	SS density (mg/l)	20	up to 14.0	1.8	4.0	Less than 1
	Oil density (mg/l)	10	up to 5.0	Less than 0.5	Less than 0.5	Less than 0.5
Drain 2	PH	5.8～8.6	6.5～8.0	7.5	7.8	7.0
	BOD density (mg/l)	20	up to 14.0	2.4	6.3	0.8
	COD density (mg/l)	20	up to 14.0	2.9	5.0	1.8
	SS density (mg/l)	20	up to 14.0	1.3	3.0	Less than 1
	Oil density (mg/l)	10	up to 5.0	Less than 0.5	Less than 0.5	Less than 0.5

* In accordance with the Pollution Control Agreement and Charter of Aichi Prefecture

Shinshiro-Minami Plan: once a month, monitors twenty items of water contamination within self-regulated targets set under the charter of and agreement with Aichi Prefecture and Shinshiro City.

Drain	Substance	Regulation	Self-imposed control value	FY2011 result		
				Average	Maximum	Minimum
Drain 1	PH	5.8～8.6	6.5～8.0	7.7	7.9	7.4
	BOD density (mg/l)	20	up to 14.0	4.0	5.6	2.5
	COD density (mg/l)	20	up to 14.1	5.9	8.3	4.2
	SS density (mg/l)	20	up to 14.2	1.6	3.0	Less than 1
	Oil density (mg/l)	10	up to 5.0	Less than 0.5	Less than 0.6	Less than 0.7
Drain 2	PH	5.8～8.6	6.5～8.0	7.6	7.8	7.4
	BOD density (mg/l)	20	up to 14.0	4.5	7.1	1.4
	COD density (mg/l)	20	up to 14.1	5.8	9.2	2.9
	SS density (mg/l)	20	up to 14.2	2.0	Less than 1	5.0
	Oil density (mg/l)	10	up to 5.0	Less than 0.5	Less than 0.6	Less than 0.7

* In accordance with the Pollution Control Agreement and Charter of Aichi Prefecture

• Discharged places

Shinshiro Plant:
Under water inspection twice a month and 24 hour monitoring of oil and water separation tank, water is discharged into the Nodagawa River, a branch of the Toyogawa River. From FY2012, we have addressed biodiversity activities, started a survey of the impact of the plant on living creatures and will make efforts at preservation of and co-prosperity with animals and plants inhabiting the river basin of the Toyogawa River.

Shinshiro-Minami Plant:
Under water inspection once a month and 24 hour monitoring of oil and water separation tank, water is discharged into the Kurodagawa River, a branch of the Toyogawa River. From FY2012, we have addressed biodiversity activities, started a survey on the impact of the plant on living creatures and will make efforts at preservation of and co-prosperity with animals and plants inhabiting the river basin of the Toyogawa River.

	Drainage outlet	Discharge point
Shinshiro Plant	Drainage #1, Drainage #2	Noda River
Shinshiro-Minami Plant	Drainage #1, Drainage #2	Kuroda River

• Air pollutants (NOx, SOx)

Substance	NOx emissions (t / year)	SOx emissions (t / year)
Shinshiro Plant	33	-
Shinshiro-Minami Plant	9.7	4.6

Shinshiro Plant

Facility	Substance	Regulation	Self-imposed control value	FY2011 result		
				Average	Maximum	Minimum
Boiler 1	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 130 0.1	0 100 0.1	0 63 Less than 0.001	0 67 Less than 0.001	0 58 Less than 0.001
Boiler 2	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 130 0.1	0 100 0.1	0 65 Less than 0.001	0 70 Less than 0.001	0 59 Less than 0.001
Cogeneration	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 100 0.05	0 80 0.05	0 72 Less than 0.004	0 76 Less than 0.001	0 68 Less than 0.001
Warm-water Boiler A	Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	150 0.1	120 0.1	35 0	35 0	32 0
Warm-water Boiler B	Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	150 0.1	120 0.1	36 0	37 0	34 0
Dipping machine	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 250 0.15	Regulations in Article 3 150 0.1	Less than 0.0030 19 0.02	Less than 0.0030 24 0.03	Less than 0.0030 13 0

* In compliance with the Air Pollution Control Law and Shinshiro City Pollution Control Agreement and Environmental Preservation Agreement with Shinshiro City

Shinshiro Plant

Facility	Substance	Regulation	Self-imposed control value	FY2011 result		
				Average	Maximum	Minimum
High-pressure Boiler 1	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.01 72 0	0.01 75 0	Less than 0.01 68 0
High-pressure Boiler 2	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.02 76 0.01	0.02 79 0.01	0.02 72 0
High-pressure Boiler 3	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.05 81 0.03	0.05 88 0.05	0.04 73 0.01
High-pressure Boiler 4	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.05 73 0.01	0.05 84 0.01	0.04 62 0.01
High-pressure Boiler 5	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.05 78 0	0.05 87 0	0.04 68 0
High-pressure Boiler 6	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.04 73 0	0.04 81 0	0.04 64 0
High-pressure Boiler 7	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.01 76 0	0.01 78 0.01	0.01 73 0
High-pressure Boiler 8	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.25	Regulations in Article 3 150 0.1	0.01 77 0.01	0.01 79 0.01	0.01 75 0.01
High-pressure Boiler 9	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.3	Regulations in Article 3 150 0.1	0.07 115 0	0.07 120 0	0.06 110 Less than 0.001
4t Boiler 2	Sulfur oxide emissions (m^3N/h) Nitrogen oxide density (ppm) Soot and dusts density (g/m^3N)	Regulations in Article 3 180 0.3	Regulations in Article 3 150 0.1	0.08 110 0	0.09 120 0.02	0.1 100 Less than 0.001

* In compliance with the Air Pollution Control Law and Shinshiro City Pollution Control Agreement and Environmental Preservation Agreement with Shinshiro City

• Soil Contamination

Shinshiro Plant:
we measure the underground water about 27 items twice a year; in January and July, in order to check for soil contamination.

Advancement of Environmentally Friendly Management

Report on the status of management of chemical substances (response to PRTR Law)

We report the subject substances to Aichi Prefecture in June every year. We always consider use reductions and conversion to alternative substances.

(Unit:t/year)

Shinshiro Plant — Safety Evaluation: III-3

Designated No.	Specitied chemical substance	Amount to treat *1	Emission *2	Transfer *3	Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
80	xylene	2.372	2.372	0.058	B	237.2	C	23.7
86	cresol	7.651	0.000	0.023	B	0.0	C	0.0
88	chromium(VI) compounds	0.106	0.000	0.000	A	0.0	——	0.0
132	cobalt and its compounds	13.925	0.000	0.220	A	0.0	——	0.0
154	cyclohexylamine	0.210	0.210	0.000	B	21.0	——	0.0
155	N-(cyclohexylthio)phthalimide	63.388	0.000	0.246	D	0.0	B	0.0
189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	35.895	0.000	0.116	D	0.0	B	0.0
205	1,3-diphenylguanidine	112.549	0.000	0.278	A	0.0	C	0.0
230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	1,424.669	0.000	4.165	D	0.0	B	0.0
258	1,3,5,7-tetraazatricyclo[3.3.1.13.7] decane; hexamethylenetetramine	50.754	0.000	0.210	——	0.0	——	0.0
296	1,2,4-trimethylbenzene	0.900	0.900	0.000	C	9.0	C	9.0
297	1,3,5-trimethylbenzene	0.172	0.172	0.000	C	1.7	C	1.7
300	toluene	1.151	1.151	0.000	C	10.5	D	1.1
333	hydrazine	0.801	0.801	0.000	A	801.0	B	80.1
372	N-(tert-butyl)-2-benzothiazolesulfenamide	288.791	0.000	0.652	B	0.0	A	0.0
438	methylnaphthalene	0.578	0.003	0.000	A	3.0	C	0.0
	Total	2,001.540	3.137	5.910		1,083.430		115.621

*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

(Unit:t/year)

Shinshiro-Minami Plant — Safety Evaluation: V-5

Designated No.	Specitied chemical substance	Amount to treat *1	Emission *2	Transfer *3	Toxicity Rank (effect on people)	Annual Converted Emissions (effect on people)	Toxicity Rank (effect on ecosystem)	Annual Converted Emissions (effect on ecosystem)
86	cresol	1.16	0.000	0.012	B	0.0	C	0.0
132	cobalt and its compounds	2.95	0.000	0.088	A	0.0	——	0.0
154	cyclohexylamine	0.15	1.150	0.000	B	15.0	——	0.0
155	N-(cyclohexylthio)phthalimide	11.89	0.000	0.119	D	0.0	B	0.0
189	N,N-dicyclohexyl-2-benzothiazolesulfenamide	7.45	0.000	0.059	D	0.0	B	0.0
205	1,3-diphenylguanidine	40.11	0.000	0.137	A	0.0	C	0.0
230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	58.37	0.000	1.880	D	0.0	B	0.0
258	1,3,5,7-tetraazatricyclo[3.3.1.13.7]decane; hexamethylenetetramine	1.79	0.000	0.046	——	0.0	——	0.0
333	hydrazine	1.79	0.000	0.000	A	0.0	B	0.0
372	N-(tert-butyl)-2-benzothiazolesulfenamide	21.26	0.000	0.384	B	0.0	A	0.0
411	formaldehyde	16.38	0.000	0.000	A	0.0	C	0.0
438	methylnaphthalene	39.19	0.150	0.000	A	150.1	C	1.5
	Total	202.48	0.300	2.725		165.110		1.501

*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

Noise, vibration and odor

Noise

Shinshiro Plant:
Once a month, measurement is conducted at twenty-one points at the border of the premises of the plant by setting stricter self-regulated targets so as not to exceed the targets under the Environmental Preservation Agreement with Shinshiro City.

Shinshiro-Minami Plant:
Once a month, measurement is conducted at eight points at the border of the premises of the plant by setting stricter self-regulated targets so as not to exceed the targets under the Environmental Preservation Agreement with Shinshiro City.

Odor

Shinshiro Plant, Shinshiro-Minami Plant:
Once a year, measurement is conducted at four points at the border of the premises of the plant by setting stricter self-regulated targets so as not to exceed the targets under the Environmental Preservation Agreement with Shinshiro City.

Safe and Healthy Workplace Environment

Initiatives to safety & health

With recognition that securing the safety and health of employees and cooperating employees are the foundations of corporate activities, the plant acquired OSHMS (Occupational Safety and Health Management System) certification conforming to JISHA (Japan Industrial Safety and Health Association) as a means to realize a safe, healthy and comfortable workplace.
By proper implementation and operation of the Management System, we will promote safety and health activities to continue to improve them based on 5S activities with participation from all employees and realize a safe, healthy and comfortable workplace.

- Shinshiro Plant Safety and Health Committee, Shinshiro-Minami Plant Safety and Health Committee (once a month)
- Cooperating Companies Environmental Safety Sub-Committee Meeting, Regional Cooperation 1st and 2nd Subcommittee Meeting, Safety Personnel Conference Sub-Committee Meeting (each sub-committee meeting: once a month)

Education and training for employees

Safety education for employees starts from safety and health education at the time of new employment and we develop activities ensuring that the rules shall be observed and approach with a sense of safety of individuals, mainly by person-to-person education for employees by managers and sensory training, risk assessment practical training, KY (danger anticipation) meeting and safety personnel certification development training.

- Safety and health education at the beginning of employment (from time to time at the time after the employment)
- Person-to-person education (once/three months, person)
- Risk assessment practical training (twice/month)
- Sensory training (once/half a year, person)
- KY (danger anticipation) Meeting (once/month)
- Safety personnel certification development training (from time to time)

Safe and Healthy Workplace Environment

Responses in case of disasters

For responses in case of disasters, regular evacuation drills are conducted in accordance with the annual fire and disaster prevention plan. At the drill, we establish a self-firefighting organization headquarters to conduct drills so that comprehensive responses can be made through fire extinguishing drills and rescue drills.
In July 2011, the Shinshiro Plant was registered as an office cooperating to disaster prevention of Shinshiro City. In case of disasters, we provide cooperation by personnel and the plant facilities and furnish an evacuation site, etc.

- Earthquake disaster prevention drills (conducted 6 times a year)
- Oil leakage treatment drills (conducted 3 times a year)
- Acquisition of emergency rescue skill certification (Ordinary ER I/ sponsored by Fire Department) 150 employees are to acquire this in FY2012

Human Rights and Labor Practices

Efforts promoting for human rights

The Yokohama Rubber Group employee's "Code of Conduct" is distributed to all employees and we make efforts for enlightenment.

Promotion of employment of people with disabilities

We have promoted to employ people with disabilities, adopted two personnel in 2011, and decided to adopt six in FY2012.

Credibility with our Business Partners

Communication with business partners

By practicing fair trade with business partners and compliance with Laws, we try to set up credible partnership in accordance with CSR guideline.

Stakeholder Communication

Major opinions and complaints we had received and our responses

Around 7:00 p.m., September 3, we received an opinion from a male driver around 70 years old who was driving in front of the main gate of the Shinshiro Plant that the lighting of the security guard office was causing glare.
Action: changed the direction of lighting

YOKOHAMA Forever Forest Project

The Shinshiro Plant held on May 21 the 3rd Shinshiro Plant Planting Festival by inviting heads of town wards in the region and students of elementary and junior high schools and 363 participants planted 781 trees.

The Shinshiro-Minami Plant held on November 13 the 3rd Shinshiro-Minami Plant Planting Festival by inviting heads of town wards in the region and students of elementary and junior high schools and 528 participants planted 5,039 trees.

In addition, at the request of people in the region, we furnished about 14,000 seedlings free of charge and 106 employees carried out planting instructions at planting sites in each region.

Relationship with local societies

We held on June 30 factory tours and informal meetings with heads of town wards around the plant by inviting 12 heads town wards.

As beautification activities around the plant, we carried out cleanup around the plant with a total of 666 employees.
350 employees participated in the Shinshiro Clean Festa (June, October) sponsored by Shinshiro City and they carried out regional beautification activities with citizens.

Factory tour and workshop

We accept applications for plant visits and explanation meetings from time to time.

Inquiry: General Affairs Section

TEL: +81-536-22-2251

FAX: +81-536-23-0353

Access: 12 minute walk from Iida Line, Nodajo Station