

## ZEON Group (Japan)

### Zeon Yamaguchi Co., Ltd.

#### Introduction to Zeon Yamaguchi Co., Ltd.

Zeon Yamaguchi Co., Ltd. was established in October 1992 as a Zeon Group company working in local construction. The company later expanded into analytics and in-house logistics and shipping, and now operates its business through three divisions.



President Toshiyuki Koumura



The Zeon Yamaguchi team in front of the office at the Tokuyama Plant

#### Environmental and Safety Activities

##### 1. Wide ranging environmental support for customers

Zeon Yamaguchi's analytical business supports the environmental efforts of the Zeon Tokuyama Plant by analyzing waste gas, noise, and wastewater on the plant's premises. Outside the company, it supports the environmental activities of local governments and businesses and helps them reduce their environmental impacts. This includes being commissioned by local governments to perform environmental monitoring, such as noise and vibration testing and water quality testing for lake, wetland, and coastal waters, and health (sick building syndrome) inspections of indoor environments at public facilities (e.g., elementary, junior high and high schools, art museums), and by local private companies to perform analysis of environmental factors associated with their business operations.

In the photovoltaic system design and installation business launched in fiscal 2010, sales have expanded to prefectural public facilities (including junior and senior high schools) and private facilities. We also began a bay construction project (floodgate devices) as a protective measure against storm surges and tsunamis. We intend to aggressively pursue business opportunities in environmental footprint reduction and environmental and safety solutions on a global level.



Solar panels (5.5kW system) installed on the Zeon Yamaguchi's office roof and LED display board installed at the Zeon Yamaguchi headquarters' front gate. In fiscal 2014, our power generation equipment generated 6,324kW of power, while marketable power is 1,283kW.

## 2. Environmental Data

While the amount of production-generated waste and waste to landfill emissions increased by comparison to the previous year, this was due to the waste soil generated accompanying the land development (development of the carbon nanotube plant construction site and laying of fire hydrant water piping) within the Zeon Corporation's Tokuyama Plant. By thoroughly segregating reusable waste soil, waste to landfill was suppressed to a minimum.

Zeon Yamaguchi Co., Ltd.		FY2010	FY2011	FY2012	FY2013	FY2014
<b>Substances covered by PRTR law</b>	Number of substances	40	40	40	40	40
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Amount emitted (tons)	0.0	0.0	0.0	0.0	0.0
<b>Industrial waste</b>	Amount generated (before volume reduction) (tons)	187	135	207	225	4,018
	Amount sent to landfill (tons)	2.0	18.2	1.4	0.8	297.2
<b>Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m<sup>3</sup>)</b>		0.2	0.2	0.3	0.2	0.2
<b>CO<sub>2</sub> emissions (tons)</b>		12	11	11	12	11
<b>Energy consumption (crude oil equivalent, kL)</b>		6	6	5	5	5

## Activities with the Local Community

Every year, volunteers from Zeon Yamaguchi join volunteers from the Tokuyama Plant and local residents in a cleanup effort on the Higashi River, which flows near the plant, and neighboring parks and roads. In addition, we also participated in forest floor shrub clearance activities known as the "Exchange Meeting of Town, Forest, and Water" with nearby companies. Employees also take part in Shunan area sports events, including a softball tournament and 24-hour relay marathon, which helps foster friendly relations with other participants which help to increase company recognition.

### ●Clean-up activities



Participants in the Higashi River cleanup activity



Cleaning up Higashi River



Before cleanup



After cleanup

● Shunan road-relay race

The 5-leg race is staged over a 16.8 km course distance consisting of 3.2 km laps. Our team finished 15th out of 23 teams, with a time of 1 hour and 15 minutes.



Participants



Passing the relay baton to the anchor

● 11th Shunan 24-hour relay marathon in Yamaguchi

Each team of 15 members runs the 1.6 km circuit course 206 times (329.6 km). Amid 137 teams taking part, our team finished in 28th position.



Runners at the start line



Participants



Cheering along Zeon team runners

● Exchange Meeting of Town, Forest, and Water

As a part of the project for promoting water conservation and reforestation, organized by the Yamaguchi Shunan Agriculture and Forestry Office, we participated in the "Exchange Meeting of Town, Forest, and Water." The purpose of these activities is to acquire a deeper understanding of the water resource conservation and global warming prevention functions of forests and also to promote voluntary activities for managing forest maintenance (forest floor shrub clearance) and appropriate management for deriving water that is used for living, agriculture, and manufacturing, which is essential to our day-to-day lives and corporate activities. With this aim, some 22 nearby companies represented by 384 volunteers maintained a forest area of 1 hectare. As a part of our Company's contribution activities to the local community, together with their families, our employee volunteers cleared shrubs from the forest of up to about 5cm diameter thick by using handsaws.



Participants



Shrub clearance activity

● Waterfront Fun Schools

Waterfront Fun Schools are extracurricular lessons held as visiting courses by the Ministry of Land, Infrastructure, Transport and Tourism after they received a request from elementary schools. An inspection of aquatic life in the Saba River in Hofu, which flows through the residential area of school children, is carried out in order to “get to know the creatures that live in rivers from the perspective of river protection.” It was the first time we had participated in this activity as a company. On the day, staff from the Ministry of Land, Infrastructure, Transport and Tourism and technicians from Zeon instructed the children on how to catch aquatic life, and how to classify them. The participating school children had a look of great interest at this new experience as they were taught how to use microscopes, which they don’t normally have access to, and how to classify aquatic life. They also made observations and compiled the results, and learned about water quality in the Saba River. They were deeply impressed by these experiences. The lesson was brought to an end with everyone safe and sound. We will continue to plan support activities that contribute to the region through our business activities.



Instructing schoolchildren

● Illegal Trade Elimination Campaign

In May and October of 2014, Registered Customs Specialists Kurihara and Ikuta from Zeon Yamaguchi’s Distribution Division participated in the Illegal Trade Elimination Campaign in front of Tokuyama Station as members of the Moji Customs Specialist Committee.

In order to raise awareness of weapons, drugs and fake brand goods, staff from Customs, the Japanese Coast Guard, the police and other related organizations, as well as the customs mascot “*Custom-kun*” and the Japanese Coast Guard mascot “*U-MIN*,” participated in the distribution of pamphlets and notebooks regarding the prevention of illegal trade. The event was an activity that strengthened the awareness of the general public.

● Opening of website and PR advertising

To inform an even greater number of our local residents about our Company’s water quality inspections, we have opened a website and we place PR advertisements in the local Shunan City press to demonstrate our environmental projects.



Advertisement of "Koho Shunan" a PR brochure of Shunan City