

Zeon Corporation – Kawasaki Plant

Kawasaki Plant Profile

Main Products

Synthetic rubbers, synthetic latex

Established in 1959, Kawasaki Plant was the first plant in Japan to mass-produce synthetic rubber. It manufactures heat- and oil-resistant synthetic rubber used in automobile engine peripheral components. Synthetic latex is used in products such as rubber gloves, cosmetic sponges, and non-woven fabric. Kawasaki Plant produces many relatively high-value-added products in small quantities.



Aerial view of Kawasaki Plant

Environment and Safety Policy

The Kawasaki Plant has formulated the following environment and safety policy, based on being a petrochemical plant that handles high-pressure gases as well as hazardous and poisonous substances, and which is located in the Keihin Industrial Zone.

1. With the participation of all employees, we are committed to maintaining safe and reliable operations and to being a plant that is trusted by everyone in the local community.
2. We identify all sources of danger in the workplace, and by reducing and eliminating them, we aim to achieve zero occurrence of environmental and safety incidents and occupational accidents.
3. We strive to continuously reduce environmental impacts in all work processes and to prevent environmental contamination.
4. We comply with environment- and safety-related laws and regulations, agreements, and internal rules and regulations; we also strive to maintain and improve our level of environmental and safety performance.
5. We conduct activities to prevent damage and reduce the extent of damage in the event of a major earthquake and tsunami striking the Tokyo Metropolitan Area.
6. We strive to maintain and improve the physical and mental health of all employees, and to create a vibrant and engaging workplace.
7. We set targets and conduct activities in the areas of the environment, safety, and occupational health and safety; we aim to improve our various management systems on an ongoing basis.

Plant Policy by the Plant Manager

Kawasaki Plant fulfills its role as a member of the local community. We participate in regular cleanups of the Tonomachi-Yako Route, a highway running through our area. Our employees also plan and hold events at the plant for local companies and residents as a way to give back to our community. We strive to coexist in harmony with the local community to build trust and alleviate concern.



Kawasaki Plant Manager
Takafumi Kawanaka

Safety Initiatives

Policy

Ensuring safety is our highest priority, and we are committed to eliminating accidents and incidents with the involvement of all employees. We have been integrating companywide safety activities since FY 2016 with the goal of continuously improving our safety operations.

Specific Initiatives

1. Safety education including accident case studies and hands-on experiential education
2. Various safety activities including reviewing and eliminating near-miss accidents

Environmental Impact Reductions

Policy

We are working to reduce our emissions of hazardous chemical substances and waste, conserve energy, and more effectively use resources in cooperation with other plants in our industrial complex.

Scope of Environmental Management System

- (1) Organizational unit : Departments of the Kawasaki Plant, Zeon Corporation
 Function : Manufacturing of synthetic rubbers, synthetic latex, and electronic materials
 Physical boundary : The entire area of the Kawasaki Plant, Zeon Corporation, 1-2-1 and 1-2-2 Yako, Kawasaki-ku, Kawasaki City, Kanagawa Prefecture
- (2) Organizational activities : Business processes from raw materials procurement through to manufacturing, packaging, storage and shipping, and utility operations including wastewater discharge from the R&D Center
 Products and services : Synthetic rubbers, synthetic latex, electronic materials and products, providing information to customers, and responding to complaints from customers and local residents
- (3) Authority and capacity of managing and influencing organizations : Head Office divisions (including design and development), partner companies (product logistics, disposal of industrial waste, etc.), vendors (companies supplying raw materials, etc.)

Specific Initiatives

1. Climate change

- We have installed the latest gas engine cogeneration system as a way to conserve resources and energy.
- We provide a steady supply of excess electricity to external users.
- We are developing processes that effectively use steam and waste heat to continue reducing our environmental impact.

2. Reducing emissions of hazardous chemical substances

- We have installed butadiene and acrylonitrile recovery equipment.
- We are making improvements to equipment to prevent steam containing acrylonitrile from escaping from openings in production equipment.
- We are studying technologies to reduce acrylonitrile emissions to 1 ton or less.

3. Reducing waste

- We are separating and reusing resources (recycling and heat recovery) to reduce our industrial waste.
- We are implementing steps to reduce the amount of industrial waste we generate in the first place.

4. Reducing impacts on water quality

- We are reducing nitrogen compounds in our wastewater.
- We are making technology improvements to increase stability in managing load fluctuations.

5. Environmental data * "0" indicates less than 0.5 tons, and "0.0" indicates less than 0.05 tons

Kawasaki Plant		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Hazardous substances	Butadiene consumption (tons)	21,758	23,040	21,940	25,121	20,408
	Butadiene emissions (tons)	2.0	1.9	2.1	2.5	1.9
	Acrylonitrile consumption (tons)	10,746	11,007	10,780	12,551	10,006
	Acrylonitrile emissions (tons)	5	4	3	3	2
Substances subject to the PRTR Act	Consumption (tons)	43,954	43,954	44,012	50,368	40,457
	Emissions (tons)	21.4	19.0	17.5	17.2	16.9
Industrial waste	Amount generated before compacting (tons)	44,380	56,330	42,734	51,836	45,813
	Amount generated after compacting (tons)	3,412	4,704	3,293	4,198	3,738
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0

Atmospheric emissions	CO ₂ emissions (tons)	23,443	21,409	23,610	27,501	22,897
	SO _x emissions (tons)	0.3	0.1	0.0	0.0	0.0
	NO _x emissions (tons)	5.6	5.9	7.7	8.5	11.8
	Soot emissions (tons)	0.5	0.5	0.6	0.6	1.1
Water resource consumption (1,000 m ³) (industrial water + groundwater + waterworks)		3,241	3,244	3,143	3,467	3,200
Wastewater	Total wastewater discharge (1,000 m ³)	2,265	2,030	2,029	2,272	2,078
	COD emissions (tons)	35	42	56	52	48
	Total phosphorus discharge (tons)	0.23	0.24	0.2	0.2	0.2
	Total nitrogen discharge (tons)	89	72	103	110	101
Energy	Consumption (crude oil equivalent, kL)	13,355	12,857	10,957	13,296	10,748
	Unit consumption index (FY 1990 = 100)	65%	77%	66%	66%	67%
Production equivalent (tons)		80,229	82,271	79,883	91,394	72,678

Relationship with Employees

Policy

We aim for employees to individually develop and improve the skills they need to perform their duties and to cultivate a spirit of cooperation among employees as we implement systematic and ongoing development of self-reliant human resources able to think and act autonomously.

Specific Initiatives

- Education at the Monozukuri Training Center at Mizushima Plant for employees in their first to third years of employment
- Internal group trainings
- On-the-job training and other vocational education
- Education offered by external parties
- Support for personal development

Relationship with the Local Community

Specific Initiatives

1. Contributing to the community through volunteering

- We participate in regular cleanups of the Tonomachi-Yako Route, a highway running through our area, together with other companies and Kawasaki City (twice/year)
- We undertake cleanup of roads that constitute commuting routes for our employees (from Kojima Shinden Station to the plant) as a self-directed activity by the plant (once/year)



Group cleanup

2. Interactions with the local community

- The R&D Center and Kawasaki Plant held a joint event to commemorate the 60th anniversary of their foundation (July)

Members of the local community were invited to attend the event, and they joined in commemorating the 60th anniversary of the foundation of the R&D Center and the Kawasaki Plant, enjoying recreational activities and a drumming performance by employees.



60th anniversary commemorative event

3. Plant tours

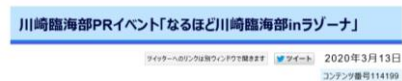
We give plant tours to introduce the plant's production activities and initiatives.

• For local residents, community organizations and schools, etc. (22 tours, a total of 62 people).

4. Other activities

• Kawasaki City coastal area PR event

We conducted a PR event with the Kawasaki City Coastal Area International Strategy Headquarters to create a point of contact between companies located in the coastal area and city residents and explain corporate activities to residents. The event was intended to raise recognition and understanding of the coastal area, enhance its image, and promote civic pride. Initially, a science experiment show was planned, but to prevent the spread of COVID-19 infection, this was changed to an event with panel displays only (see figure to the right).



■ イベントレポート
令和2（2020）年2月25日（火）から3月1日（日）に、ラゾーナ川崎プラザ2階ショッピングフロアで、川崎臨海部を紹介する「なるほど川崎臨海部inラゾーナ」を開催し、川崎臨海部で取り組まれているさまざまな産業活動をパネルで紹介しました。



川崎臨海部紹介パネル
Kawasaki City coastal area PR event (from the Kawasaki City website)