

Yokohama Plant / Environmental Report 2004

Business Summary: Manufacturing of vehicle engines and axels

Location: 2 Takara-cho, Kanagawa-ku, Yokohama, Kanagawa, Japan

Start of Operations: July 1935

Number of Employees: 4,000

ISO 14001 Certification: July 1998

Environmental Slogan: Creating an environmentally friendly facility, protecting the global environment and caring for Yokohama's natural setting.



General Manager
Yokohama Plant
Toshiharu Sakai

T. Sakai



Yokohama Plant

Major Results in FY 2003

Zero Emissions

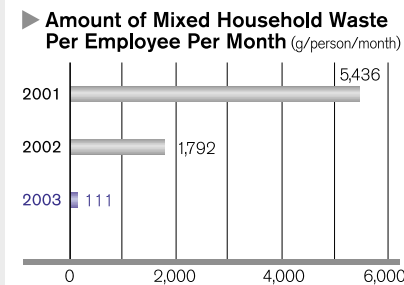
Since 2001, we began implementing zero emissions activities for waste and have attained "zero" direct landfill disposal for the past three consecutive years. We are promoting further recycling activities, and are working toward reducing the amount of waste that is incinerated.

Since 2003, all employees have been actively involved in a program to completely separate out "mixed household" burnable waste through the "One Employee, One Month, One Hundred Grams" program. Since the latter part of 2003, the amount of waste generated per employee per month is 111g, very close to reaching our goal. We will continue to promote activities that aim for zero emissions.

Energy Conservation

The following measures were taken through a collaborative project involving all departments:

1. Reduction in the maximum usage of electric power through the staggering of plant operation time.
2. Reduction of the energy used while the plant is not in operation, such as break times and shift changes.
3. Discovery and implementation of energy conserving technical items with the cooperation of "NESCO," the special team that aims for the promotion of company-wide, cross-sectional energy conservation.
4. Raising employee awareness through PR activities such as holding hands-on events for energy conservation.



FY 2003 Objectives and Results

Objective	Target	Results	Comments
Environmental preventive measures	Zero environmental accidents	+	Always aware of status of compliance with regulations and the operational status of plant facilities through implementation of scheduled environmental measurements.
Energy conservation	Reduction in amount of heat 109,000 GJ/year	+	Achieved significant results in the reduction of energy due to overall activities at the plant and energy conservation project activities.
Zero emission of waste	Continued achievement of zero waste to landfill	+	While achieving "zero" direct disposal to landfill for three consecutive years, all employees have also been taking part in the "One Employee, One Month, One Hundred Grams" program, and proactive efforts for zero emissions are being taken.
Reduction in use of hazardous chemical substances	Reduction in chemical use; verification of chemicals prior to use (efforts for non-chlorinated, etc.)	+	Making efforts to reduce the use of chemicals and switch to less harmful products through innovations in the manufacturing process and verification of chemicals prior to use.
Cooperation and coexistence with local communities	Guest Hall/engine museum operation	+	Since the opening of the Guest Hall one year ago, the number of visitors is now ten times greater.
	Summer Festival/ plant open house	+	These are regular annual events jointly held with the community.
Creating a corporate culture that values the environment	Implementation of "Director Patrols" (once a month)	+	Held monthly to prevent environmental accidents and raise plant-wide environmental awareness.

*Environmental Accident: A spill above legal requirements leaving company grounds

Communication with the Community

Guest Hall First Anniversary

One year has passed since the opening of the Guest Hall in April 2003 and during the year we have had approximately 20,000 visitors. At the first anniversary commemorative event, Mr. Yutaka Katayama of NISMO gave a commemorative lecture, and also several changes were announced, such as an increase in the number of engines on display and the opening of the hall on Saturdays. We hope to see an even greater number of visitors to the Guest Hall this year.

Event Date: Thursday, March 25, 2004 / **Attendees:** 150



Community Relations Model Factory Award

Our contributions to the local community through such aspects as open communication with the local community (summer festival, plant tours, etc.), information disclosure (inviting visitors to our plant with the tour centered around our Guest Hall), and community-based activities (electrical power reduction, recycling) have gained us recognition from Kanagawa Prefecture for being committed to successful coexistence with our community.

Event Date: Friday, November 28, 2003



Plant Tour

As a way for local citizens, our employee's family members, and retired Nissan employees to learn about the Yokohama plant and Nissan, we hold a plant tour every year. Despite the rain, many people joined us for our most recent tour.

Event Date: Monday, November 3, 2003
Attendees: 900



Environmental Data

Air Quality (Air Pollution Control Law and ordinances)

Unit: NOx: ppm, Soot and dust: g/m³ N, Dioxins: ng-TEQ/m³ N

Substance	Facilities	Legal Limits	Measured Value
NOx	Boilers	150	57
	Heating furnaces	230	34
	Gas engines	300	29
	Furnaces	180	155
	Smelters	180	43
Soot and dust	Boilers	0.05	0.002
	Heating furnaces	0.1	0.006
	Gas engines	0.04	0.001
	Furnaces	0.1	0.033
	Smelters	0.1	0.059
Dioxins	Aluminum furnaces	5	0.32

Measured values are the maximum measured values in FY 2003

Wastewater Quality (Waste Water Pollution Control Law and other ordinances)

Unit: mg/L (except pH, COD, Dioxins)

Item*1	Legal Limits	Measured Values		
		Maximum	Minimum	Average
pH(-)	5.8~8.6	7.6	6.8	7.2
COD (total) (Kg/d)	Area #2	64.8	46.6	1.4
	Area #3	92.1	79.1	0.6
	Area #4	7	1.4	ND*3
SS*2	90	12	ND*3	3
Oil*2	5	1	ND*3	0.1
Copper	3	0.13	ND*3	0.01
Zinc	3	0.14	ND*3	0.07
Fluoride	8	0.7	ND*3	0.3
Soluble iron	10	0.5	ND*3	0.05
Soluble manganese	1	0.8	ND*3	0.3
Total nitrogen	30	25	1.9	6.4
Total phosphorous	8	0.4	ND*3	0.1
Dioxins (pg-TEQ/L)	10	0.4	ND*3	0.1

*1 Measurements of items other than those listed above were below minimum quantifiable limits **More strict than what is required by the regulations **3ND indicates below minimum quantifiable limits

PRTR Substances

Unit: kg/year (Dioxins: ng-TEQ/year)

Substance number	Chemical substance	Amount handled	Air	Water	Waste	Landfilled by Nissan	Recycled	Chemically changed	Product
1	Water-soluble zinc compounds	313	0	1	0	40	0	0	272
16	2-Ethynol amine	39	0	14	0	0	0	25	0
40	Ethyl benzene	25,545	9	0	0	0	0	25,536	0
43	Ethylene glycol	313	0	0	0	313	0	0	0
63	Xylene	114,289	27	0	0	0	0	114,262	0
227	Toluene	179,007	592	0	0	0	0	178,415	0
230	Lead and its compounds	1,119	0	0	56	0	0	0	1,063
232	Nickel compounds	216	0	5	0	137	0	0	73
243	Barium and its compounds	402	0	0	402	0	0	0	0
272	Bis (2-ethylhexyl) phthalate	4,416	0	155	0	0	0	0	4,261
283	Hydrogen fluoride and its compounds	5,760	691	0	0	0	5,069	0	0
299	Benzene	14,646	46	0	0	0	0	14,600	0
304	Boron and its compounds	68	8	28	0	32	0	0	0
307	Poly (oxyethylene) = alkyl ether (C = 12 -15)	0	0	0	0	0	0	0	0
309	Poly (oxyethylene) nonyl phenyl ether	5,342	0	186	0	0	0	42	5,114
311	Manganese and its compounds	3,581	0	0	0	0	0	0	3,581
346	Molybdenum and its compounds	82	0	0	0	0	82	0	0
179	Dioxins	6	5.8	0.0018	0.0	0	0	0	0
Total		355,138	1,373	389	458	522	5,151	332,880	14,364

• PRTR : Pollution Release and Transfer Register. This system calculates the extent to which the production, use, and storage of chemical substances result in the release and transfer of those substances into the environment. The PRTR Law was originally enacted in July 1999 in Japan. • According to PRTR law, raw materials that contain 0.1% or more of carcinogen (designated type 1 chemical substances) and those that contain 1% or more of other substances are measured. All are reported to the local government, but information on additional substances is included in this chart (all types of dioxin are stated). • As the figures are rounded to the first place, the sum of air, water, waste, or buried by Nissan, recycled, chemically changed, and made into products may not necessarily be the same as the sum of the amount handled or total.

Major products



QR25/QR20 Engine (installed in the Primera)

VK45/VH45 Engine (installed in the Cima)

NISSAN MOTOR CO., LTD.

[For inquiries, please contact]

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