

Oppama Plant /Environmental Report 2006

Business Summary: Vehicle manufacturing

Address: 1 Natsushima-cho, Yokosuka-shi, Kanagawa, Japan

Start of Operations: October 1961

Number of Employees: 4,700

ISO 14001 Certification: May 1997

Environmental Slogan: Let's preserve and improve the natural environment of our beautiful beaches with their green flora and blue seas



General Manager
Oppama Plant
and Vice President
Shouhei Kimura



Oppama Plant

Shouhei Kimura

Major Results in FY 2005

Zero Emissions (activities)

In the past, heavy liquid wastes such as cutting fluid could only be dealt with through incineration. However, since we innovated a heavy liquid waste processing facility, we have been able to reduce the volume of waste we must incinerate.



Heavy liquid waste processing facility

Reducing CO₂ Emissions

We reduced power consumption through better performance of the air compression drive unit governing devices and pressure control valves, leading to reduced CO₂ emissions. Nissan subsequently received the Chairman's Award for excellence in energy savings from the Energy Conservation Center.



The compressed air supply device drive's control panel

Reducing Substances with Environmental Impact

By boosting performance of the dust collection device (bag filter) at the recycling center, we reduced the amount of coal dust and other substances with an environmental impact. Dust collection efficiency: 99.99%.



Recycling center

FY 2005 Objectives and Results

Objective	Target	Result	Comment
Complying with regulations	Zero environmental accidents*	+	Implemented environmental education, environmental patrols, and training for responding to accidents according to plan. Reached our target for zero environmental accidents.
Reduction in substances with an environmental impact	Cleaning thinner recovery rate of more than 60%	+	Reached our target for the recovery rate of cleaning thinner.
Energy conservation	Reducing CO ₂ emissions to below 86,298 tons per year	+	Reached our target. Through our steady energy savings activities, we reduced CO ₂ emissions to 77,623 tons per year.
Zero emission of waste	Reduction in amount of incinerated waste below 3,900 tons per year.	+	By adopting a new recycling system and more detailed separation activities, we reduced the volume of incinerated waste to 2,723 tons. Reached our target.
Creating a corporate culture that values the environment	—	+	We conducted original activities for raising the "environmental mindset" of staff at various work sites.
Coexistence with local communities	1. Implementation of clean-up activities around the plant 2. Participation in local environmental activities	+	We displayed a prototype car powered by a fuel cell battery at the Environment Fair sponsored by Yokosuka City and disseminated information on our environmental measures to the public.

* Environmental accident: A spill above legal requirements leaving the plant grounds.

Communication with the Community

2005 Oppama Festival

We held the 2005 Oppama Festival with the dual aims of deepening community relations and communicating with our employees. An environmental display was set up to introduce our various environmental improvement activities being pursued at the plant.

Participants: 33,400
Event Date: October 2, 2005 (Sunday)
Location: Oppama Plant Area 3



Oppama Plant Open House

Citizens from the local community toured the inside of our plant. We set up an environmental display to explain our conservation measures. The visitors were also given a live demonstration of the wastewater treatment processes.

Participants: 1,500
Event Date: November 3, 2005 (Thursday)
Location: Oppama Plant Area 1



Nissan Cup Kanagawa Triathlon

Event Date: June 19, 2005 (Sunday)
Location: Oppama Plant Area 3 and test course.

Nissan Cup Oppama Championship (National Wheelchair Marathon)

Event Dates: December 2-4, 2005 (Friday-Sunday)
Location: Oppama Plant Area 1 to 3, public road in the Oppama shopping district, and the track and field ground in Yokosuka's Iriyamazu Park.



Environmental Data

Air Quality (Air Pollution Control Law and ordinances)

Substance	Facility	Legal Limit	Measured Value
NOx	Boiler	105	44.5
	Paint oven	180	2
	Gas engine	200	37
	Incinerator	250	130
Soot and dust	Boiler	0.2	0.002
	Paint oven	0.1	ND
	Gas engine	0.04	ND
	Incinerator	0.08	0.001
Dioxins	Incinerator	1	0.26

Unit: NOx: ppm, Soot and dust: g/m³N, Dioxins: ng-TEQ/m³N
• Measured values are the maximum measured values in FY 2005.

Wastewater Quality (Water Pollution Control law and other ordinances)

Item	Legal Limit	Measured Value		
		Maximum	Minimum	Average
pH(-)	5.8-8.6	7.6	7.2	7.4
COD	60	9.9	4.8	7.7
COD (total)(kg/d)	106.8	33.9	6.7	20.0
BOD	60	ND	ND	ND
SS	90	3.0	ND	1.0
Oil	5	ND	ND	ND
Zinc	3	0.26	0.08	0.15
Fluoride	15	1.8	0.9	1.2
Copper	3	0.08	ND	0.03
Lead	0.1	0.04	ND	0.01
Nickel	1	0.2	ND	0.1
Soluble iron	10	0.4	ND	ND
Soluble manganese	1	0.1	ND	ND
Chromium	2	0.01	ND	ND
Total Nitrogen	50	23	8.4	14.58
Total Phosphorous	16	1.5	0.1	0.42

Unit: mg/L (except pH)

• Measurements of items other than those listed above were below minimum quantifiable limits.
• ND indicated values lower than the minimum quantifiable limit.

PRTR Substances

Substance number	Chemical substance	Amount handled	Unit: kg/year (Dioxins: mg-TEQ/year)						
			Air	Water	Waste	Landfilled by Nissan	Recycled	Chemically changed	Product
1	Water-soluble zinc compounds	10,627	0	32	0	1,350	0	0	9,246
9	(2-ethylhexyl) adipate	2,034.6	0	0	0	0	0	203	1,831
30	Bisphenol A type epoxy resin	2,104	0	0	0	0	0	610	1,495
40	Ethyl benzene	45,554	6,873	0	0	0	615	9,432	28,634
43	Ethylene glycol	672,232	0	0	0	0	0	0	672,232
63	Xylene	1,232,093	496,001	0	0	0	588,863	111,381	35,847
68	Chromium and trivalent chromium compounds	7	0	0	0	0	0	0	7
101	2-ethoxyethyl acetate	1	1	0	0	0	0	0	0
224	1,3,5 trimethylbenzene	1,088	382	0	0	0	664	42	0
227	Toluene	634,942	199,180	0	0	0	138,294	82,732	214,735
230	Lead and its compounds	0	0	0	0	0	0	0	0
231	Nickel	27	0	0	0	0	0	0	27
232	Nickel compounds	4,943	0	208	0	1,671	0	0	3,064
243	Barium and its water-soluble compounds	2	0	0	0	0	0	0	2
270	Di-n-butyl phthalate	1	1	0	0	0	0	0	0
272	Bis (2-ethylhexyl) phthalate	3,580	0	0	0	0	0	107	3,473
299	Benzene	20,253	10	0	0	0	0	5,919	14,324
309	Poly (oxyethylene) nonyl phenyl ether	2	0	0	0	0	0	2	0
311	Manganese and its compounds	7,522	0	308	0	2,482	0	0	4,731
312	Phthalic anhydride	92	0	0	0	0	0	9	83
179	Dioxins	234	52	0	0	182	0	0	0
Total		2,637,103	702,447	548	0	5,502	728,436	210,439	989,731

*PRTR: Pollutant 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 and those that contain 1% or more of other substances are measured, and substances that contain carcinogens handled in quantities of over 500kg per year, or other substances of over 1 ton, are reported to the local government, but information on additional substances is included in this chart (all types of dioxins 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



Cube



Tiida



Note



Bluebird Sylphy

Nissan Motor Co., Ltd.

[For inquiries, please contact]

Oppama Plant Administration Department

tel: +81(0)46-867-5000 fax: +81(0)46-865-0273