

# Oppama Plant / Environmental Report 2005

**Business Summary: Vehicle manufacturing**

**Location: 1 Natsushimacho, 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.**



Regional VP. and  
General Manager  
Oppama Plant  
Yoshiaki Watanabe



Oppama Plant

*Yoshi Watanabe*

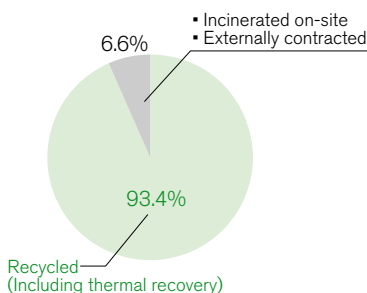
## Major Results in FY 2004

### Zero Emissions

While maintaining zero direct disposal to landfill volume, we are working to reduce our volume of incinerated waste through such activities as waste separation and recycling.

#### ● Recycling Rate (%)

(Including scrap metals)



### Energy Conservation Activity

The heat generated from waste incineration is collected to make steam, and the steam is used to drive the compressor (steam-powered system). It decreased energy consumption.



Steam-powered Compressor

### Reduction of Environmentally Impacting Substances

The deodorization equipment that treats emissions from the resin paint plant oven was changed from a catalytic converter to a regenerative thermal oxidizer (RTO), leading to an improvement in the volatile organic compound (VOC) capture efficiency. All paint plant ovens have been changed to RTOs.



Regenerative Thermal Oxidizer (RTO)

## FY 2004 Objectives and Results

Objective	Target	Result	Comment
Environmental preventive measures	Zero environmental accidents*	+	Implemented environmental education, environmental patrols, and training for responding to accidents according to plan.
Reduction of environmentally impacting substances	Implementation rate of facilities improvement plan=100%	+	Installed the RTO in the resin paint according to plan.
	Cleaning thinner recovery rate of more than 60%	+	Kept the state of the target value attainment of the wash solvent recovery rate.
Energy conservation	Reduction in amount of heat 82,000 GJ/year	+	Achieved the target by searching out and implementing the energy conservation items.
Zero emission of waste	Reduction in amount of incinerated waste	+	Found and implemented new recycling activities; waste separation patrol was implemented as scheduled.
Creating a corporate culture that values the environment	Activities to raise environmental awareness	+	Conducted activities for "Environmental Month", "Energy Conservation Month" and other events.
Cooperation and coexistence with local communities	<ol style="list-style-type: none"> <li>1. Implementation of mutual observation tours with other companies</li> <li>2. Implementation of clean-up activities around the plant</li> <li>3. Invitation to visitors for environmental course and plant tour</li> </ol>	+	We offered a science course for Elementary School students during the summer vacation. We also held a Plant Open House and set up an environmental information desk.

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

## Communication with the Community

### Oppama Plant Open House

Citizens from the local community took a tour of the inside of our plant.

Visitors: 1,500

Event Date: Friday, February 11, 2004

Location: Oppama Plant Area 1

### 2004 Oppama Festival

We held the "2004 Oppama Festival" with the aim of establishing a harmonious relationship with the local community and invigorating our employees.

Participants: 28,000

Event Date: Sunday, October 17, 2004

Location: Oppama Plant Area 3



### Nissan Cup Oppama Championship (National Wheelchair Marathon)

Event Date: Thursday-Saturday, December 2-4, 2004

Location: Oppama Plant Areas 1,2,3 and Yokosuka Iriyamazu Park Sports Stadium



### Nissan Cup Kanagawa Triathlon

Event Date: Sunday, June 20, 2004

Location: Provided Oppama Plant Area 3 and the Test Course for meeting areas



## Environmental Data

### Air Quality (Air Pollution Control Law and ordinances)

Unit: NOx: ppm, Soot and dust: g/m<sup>3</sup>N, Dioxins: mg-TEQ/m<sup>3</sup>N

Substance	Facility	Legal Limit	Measured Value
NOx	Boiler	105	84
	Paint oven	130	25
	Incinerator	250	150
Soot and dust	Boiler	0.1	0.003
	Paint oven	0.1	0.001
	Incinerator	0.08	0.002
Dioxins	Incinerator	1	0.18

\*Measured values are the maximum measured values in FY 2004.

### Wastewater Quality (Wastewater Pollution Control Law and other ordinances)

Unit: mg/L (except pH)

Item	Legal Limit	Measured Value		
		Maximum	Minimum	Average
pH	5.8-8.6	7.8	7.3	7.6
COD	60	9.9	5.3	8.2
COD (total)	110	33.7	9.2	19.2
BOD	60	ND	ND	ND
SS	90	3.0	ND	0.33
Oil	5	ND	ND	ND
Zinc	3	0.24	0.05	0.13
Fluoride	15	2.2	0.5	1.29
Copper	3	0.08	ND	0.02
Cyanogens	1	ND	ND	ND
Lead	0.1	0.02	ND	0.007
Nickel	1	0.3	ND	0.08
Soluble manganese	1	0.1	ND	0.03
Total nitrogen	50	22	7.3	12.8
Total phosphorus	16	1.9	ND	0.65

\*ND indicated values lower than the minimum quantifiable limit.

### PRTR Substances

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

Substance number	Chemical substance	Amount handled	Air	Water	Waste	Landfilled by Nissan	Recycled	Chemically changed	Product
1	Water-soluble zinc compounds	27,979	0	84	0	3,553	0	0	24,342
9	2-(ethylhexyl) adipate	2,395	0	0	0	0	0	240	2,156
30	Bisphenol A type epoxy resin (liquid)	1,977	0	0	0	0	0	530	1,447
40	Ethyl benzene	39,068	3,691	0	0	0	0	6,792	28,562
43	Ethylene glycol	679,449	0	0	0	0	0	0	679,449
63	Xylene	1,214,956	475,116	0	0	0	598,054	106,018	35,768
68	Chromium and trivalent chromium compounds	4	0	0	0	0	0	0	4
78	Fluazinam	2	0	0	0	0	0	0	0
224	1,3,5 trimethylbenzene	9	4	0	0	0	0	2	0
227	Toluene	648,622	325,181	0	0	0	1,430	107,815	214,197
231	Nickel	22	0	0	0	0	0	0	22
232	Nickel compounds	4,957	0	164	0	2,403	0	0	2,390
243	Barium and its water-soluble compounds	2	0	0	0	0	0	0	2
270	Di-n-butyl phthalate	6	6	0	0	0	0	1	0
272	Bis (2-ethylhexyl) phthalate	70,671	0	0	0	0	0	2,123	68,548
283	Hydrogen fluoride and its water-soluble salts	116	0	0	0	0	0	0	0
299	Benzene	19,505	10	0	0	0	0	5,205	14,291
309	Poly (oxyethylene) nonyl phenyl ether	5,757	0	108	0	0	0	5,649	0
311	Manganese and its compounds	11,467	0	475	0	3,821	0	0	7,172
312	Phthalic anhydride	101	0	0	0	0	0	10	91
179	Dioxins	10,867	34,115	0	0	10,833	0	0	0
<b>Total</b>		<b>2,737,933</b>	<b>804,041</b>	<b>831</b>	<b>0</b>	<b>20,610</b>	<b>599,484</b>	<b>234,384</b>	<b>1,078,439</b>

\*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



TIIDA



NOTE

## Nissan Motor Co., Ltd.

[For inquiries, please contact]

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