

Tochigi Plant /Environmental Report 2006

Business Summary: Vehicle manufacturing and parts casting, axle unit and final drive unit manufacturing

Address: 2500 Kamigamou, Kaminokawa-machi, Kawachi-gun, Tochigi, Japan

Start of Operations: October 1968

Number of Employees: 6,100

ISO 14001 Certification: December 1997

Environmental Slogan: To make continuous efforts to preserve the water and environment surrounding the plant



General Manager
Tochigi Plant
and Vice President
Susumu Endo

Susumu Endo



Tochigi Plant

Major Results in FY 2005

Reducing CO₂ Emissions

In fiscal 2005 a broad-based team that transcended the plant's departments concentrated on identifying and implementing ways to cut CO₂ levels. We reduced CO₂ by 26,008 tons, achieving 101% of our original target figure.

Furthermore, we continued to nurture awareness of energy savings by means of energy-saving suggestions (1,609 submissions) and energy-saving lectures.



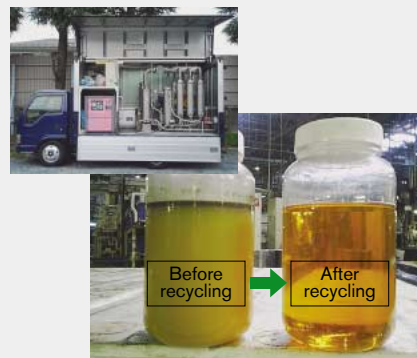
Example of CO₂ reduction efforts: Switching 6,826 lights to energy-saving lights in fiscal 2005.

Effectively Utilizing Resources

On the heels of last year's activities to reduce the volume of waste for incineration, we pursued further reductions by:

- Eliminating packing materials for parts ("reduce")
- Returning parts containers ("reuse")
- Reusing cleaning fluid in parts machining processes ("recycle"), etc.

We reached 102% of our targets, with a reduction of 2,554 tons. In fiscal 2006, we plan to boost our recycling rate from the 99.96% to 100%.



Above: A vehicle transporting a recycling device for cleaning fluid
Below: Cleaning fluid before and after recycling

Risk Reduction Activities

In order to prevent environmental accidents beforehand, and to make the environmental impact minimum when the accident occurs, we have continuously been executing "Environmental education" and "Training for the environmental accident". Employees in the cooperation companies of Nissan have also been given "Environmental education", so that all members working plants can share their experience on the importance of environmental preservation.



Drills to prepare for environmental accidents
Stacking sandbags (above left and below left)
Suction of polluted water with vacuum (above right)
and status/countermeasures report (below right).

FY 2005 Objectives and Results

Objective	Target	Result	Comment
Prevention of environmental accidents	1. Zero environmental accident*	+	We were able to maintain our "zero environmental accident" record by educating workers about environmental preservation and equipment measures that protect the environment. Furthermore, we conducted drills to prepare for possible environmental mishaps.
	2. The implementation rate of the improvement plan=100%	+	We executed seven scheduled improvement measures.
Zero emission of waste	Reducing the amount of waste less than 147,000 tons per year. (Recycling 99.96% of that amount)	+	By reusing plastic components such as assembly component protection caps, we exceeded our target volume for waste reduction by approximately 3,000 tons.
Energy conservation	Reducing CO ₂ emissions below 359,000 tons per year.	+	Through team activities that included many of the plant's departments, we identified and implemented CO ₂ reduction methods, exceeding the targeted emission level by approximately 4,000 tons.

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

Communication with the Community

Environmental Facilities Tour

By holding the Tochigi Town and Village Heads meeting, and offering tours to organizations such as the Tochigi Consumer Organization Liaison Council and the citizens of the community, we continue to exchange information with the community for a better understanding of our environmental actions.



Environmental Facilities Tour

Waste Incinerator Tour

As a part of our efforts to reduce waste and create a brighter, cleaner plant, our employees tour a waste incinerator to learn methods of waste processing. They come to understand the importance of waste segregation by type. That encourages them to segregate waste precisely. The tour leads to less waste.



Above: Tour of processing facilities
Below: Green Park Mobara

Local Environmental Protection

On an ongoing basis, our employees take time during their lunch breaks to pick up litter along the public road bordering our plant. This hands-on activity has become part of new employee training as a way of raising awareness about the importance of environmental conservation and of teaching how to put that awareness to good use.



Litter Collection

Environmental Data

Air Quality (Air Pollution Control Law and ordinances)

Substance	Facility	Legal Limit	Measured Value
NOx	Boiler	190	130
	Paint oven	230	27
	Diesel engine	950	890
	Heating furnace	200	111
	Smelting furnace	180	72
Soot and dust	Boiler	0.15	0.006
	Paint oven	0.2	0.002
	Diesel engine	0.1	0.046
	Heating furnace	0.2	0.009
	Smelting furnace	0.2	0.005
Dioxins	Aluminum smelting furnace	5	0.00042

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	8.6	6.1	7.4
BOD	25*	13.7	ND	2.4
SS	50*	8.5	ND	1.6
Oil	5	2.8	ND	ND
Zinc	5	0.2	ND	ND
Soluble iron	3*	0.5	ND	ND
Soluble manganese	3*	0.2	ND	ND
Fluoride	8	0.6	ND	ND
Total Nitrogen	20*	7.9	1.9	5.1
Total Phosphorous	2*	0.6	ND	0.3

Unit: mg/L (except pH)
* Measurements of items other than those listed above were below minimum quantifiable limits.
* ND indicates below minimum quantifiable limits. * Indicates a Tochigi prefectural ordinance

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	7,025	0	21	892	0	0	0	6,112
9	(2-ethylhexyl) adipate	1,283	0	0	0	0	0	64	1,219
16	2-aminoethanol	715	0	143	0	0	0	572	0
25	Antimony and its compounds	22,770	0	0	0	0	0	0	22,770
29	Bisphenol A	21,311	0	0	0	0	0	21,311	0
30	Bisphenol A type epoxy resin	8,497	0	0	0	0	0	565	7,931
40	Ethyl benzene	75,007	49,572	0	0	0	0	13,286	12,150
43	Ethylene glycol	383,521	0	0	0	0	0	0	383,521
44	Ethylene glycol monoethyl ether	14	14	0	0	0	0	0	0
63	Xylene	196,525	111,963	0	0	0	7	28,488	56,068
67	Cresol	1,710	0	0	0	0	0	1,710	0
68	Chromium and trivalent chromium compounds	32,270	0	0	0	0	0	0	32,270
109	2-(diethylamino)ethanol	275	0	55	0	0	0	220	0
176	Organic tin compounds	6,526	0	0	326	0	0	0	6,200
224	1,3,5 trimethylbenzene	6,264	3,909	0	0	0	1,363	993	0
227	Toluene	71,538	45,753	0	0	0	3	12,233	13,549
232	Nickel compounds	1,640	0	39	1,043	0	0	0	558
260	Pyrocatechol	19,260	0	0	0	0	0	19,260	0
266	Phenol	23,685	0	0	0	0	0	23,685	0
270	Di-n-butyl phthalate	122	0	0	0	0	0	122	0
272	Bis (2-ethylhexyl) phthalate	71,128	0	0	0	0	0	3,466	67,661
283	Hydrogen fluoride and its water-soluble salts	9,521	680	2,127	2,552	0	4,162	0	0
299	Benzene	15,425	8	0	0	0	0	0	15,417
304	Boron and its compounds	267	13	131	0	0	116	0	7
307	Poly (oxyethylene) = alkyl ether (alkyl C = 12-15)	3,365	164	1,653	1,477	0	0	71	0
309	Poly (oxyethylene) nonyl phenyl ether	1,789	40	482	358	0	433	477	0
310	Formaldehyde	2,210	1,732	0	0	0	0	479	0
311	Manganese and its compounds	358,129	0	102	516	0	303	0	357,208
312	Phthalic anhydride	41	0	0	0	0	0	2	39
346	Molybdenum and its compounds	6,780	0	0	0	0	0	0	6,780
179	Dioxins	0.297	0.297	0	0	0	0	0	0
Total		1,348,616	213,848	4,753	7,165	0	6,386	127,004	989,460

*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 (other than varieties of dioxin).

Major Products



Fairlady Z



Fuga



Skyline



Stagea

Nissan Motor Co., Ltd.

[For inquiries, please contact]

Tochigi Plant Administration Department

tel: +81(0)285-56-1204 fax: +81(0)285-56-7105