

## Cosmo Matsuyama Oil Co., Ltd. (as of March 31, 2005)

<b>Address</b>	3-580 Okaga, Matsuyama, Ehime
<b>Start-up</b>	February 1944
<b>Total area</b>	691,874 m <sup>2</sup>
<b>Company Staffs</b>	104
<b>ISO 9001</b>	November 14, 1997
<b>ISO 14001</b>	December 28, 1998



### About the Cosmo Matsuyama Oil

Cosmo Matsuyama Oil is situated on the eastern side of the National Park of Seto Inland Sea and its core business is the production and sale of petroleum products and petroleum solvents. It provides a stable supply of products to users in various parts of Western Japan, and a portion of its products are exported to South Korea, China, and Taiwan through the Maruzen Oil and Chemicals Co., Ltd.

- **Environmental activities:** In the area of aromatic agents, Cosmo Matsuyama Oil is developing environmentally compatible products which have a small environmental impact. In addition, for purposes of conserving energy, it uses an inverter for the boiler's combustion ventilator, and by reevaluating operational management, fuel consumption is decreasing.
- **Safety activities:** With "In the tradition of our safe culture, continue to maintain our accident free record", as being our primary objective, Cosmo Matsuyama Oil has had no accident since 1983 for 21 years. In addition, it has developed a system for reporting minor concerns and worrisome situations, thereby cultivating a culture of awareness towards accident prevention and sensitivity towards dangers.
- **Activities for the regional community:** With "promotion of environmental safety that is in harmony with society" as one of the primary management objectives, Cosmo Matsuyama Oil aims to be a company that is loved by the community for the considerations it makes concerning the environment and safety. Cosmo Matsuyama Oil keeps cooperation with the neighboring community and participation in the annual events (such as the summer festival, other festivals, respect for the elderly day, the year end celebration, etc.).



**Shoji Yoshida**  
President  
Cosmo Matsuyama Oil

### Environmental Activities

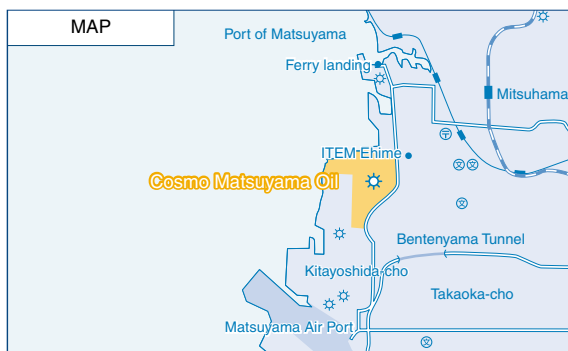
- **Energy conservation**  
Introduction of the "motor inverter control (HDRIVE method)", etc.

### Health and Safety Activities

- **Preventative measures**  
Developed methods for reporting minor concerns and worrisome situations.
- **Results**  
Continued record of no accidents or disasters (21 years)

### Regional Communication Activities

- Participation in the local summer festival and respect for the elderly event
- Participation in campaign around the train stations of the Hokujo Railway
- Participation in events that promote neighborly interaction (cleaning of the highway in front of the company 4 times annually), etc.



Number of visitors to the factory in Fiscal 2004	5 visits 162 people
No accident record (as of December 2004)	6,732,000 hours
PCB custody status	High voltage transformers 1 units Others

### Number of Staff holding Environmental Qualifications

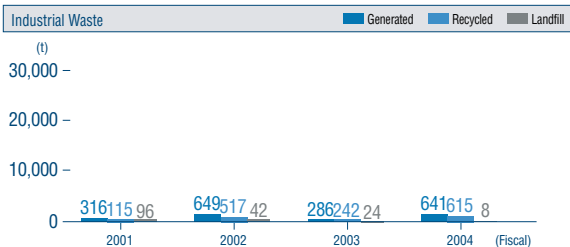
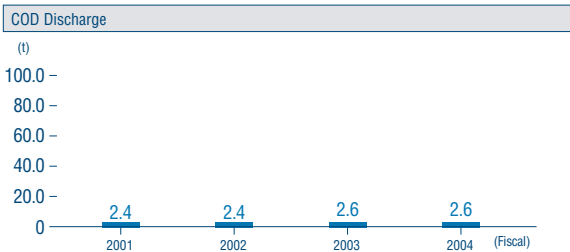
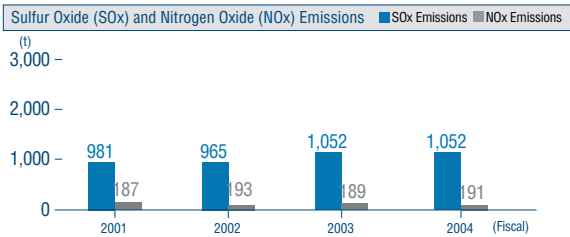
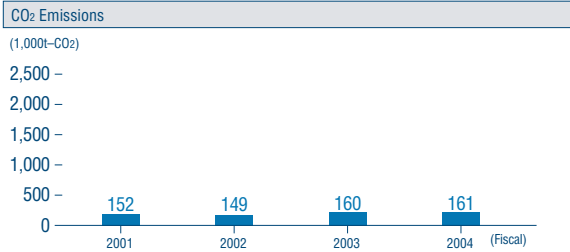
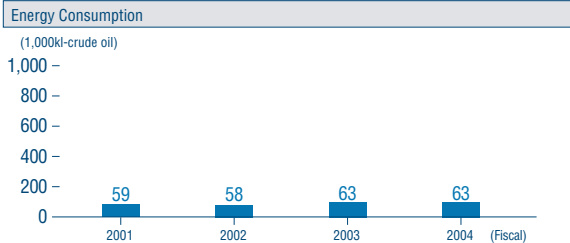
Air pollution control manager	10
Water pollution control manager	11
Noise pollution control manager	1
Vibration pollution control manager	1
Dioxin pollution control manager	1
Hazardous materials officer (Class A & B)	113
High-pressure gas production safety manager (Class A & B)	91
Qualified person for heat management	6
Qualified person for electricity management	2
Specially controlled industrial waste manager	1
Engineering manager for disposal facilities of industrial waste	3
Boiler operator (Special grade)	1
Boiler operator (1st & 2nd grade)	94

**Regulated Pollutants**

	Pollutant	Standard	Actual Performance in Fiscal 2004	
			Maximum	Average
Air pollutants	NOx (m <sup>3</sup> N/hour; total pollutant load control)	—	16.20	12.49
	SOx (m <sup>3</sup> N/hour; total pollutant load control)	208	65.53	49.34
	Particulate (boiler 3HB; g/m <sup>3</sup> N)	0.17	0.05	0.04
Water pollutants			Maximum	Average
	COD (kg/day; total pollutant load control)	361.5	27.6	7.1
	COD (mg/L)	15 (10)	4.9	2.7
	SS (mg/L)	20	6.0	2.0
	Oil Content (mg/L)	2	Below measurement threshold	
	Nitrogen (kg/day; total pollutant load control)	192.5	11.0	5.2
	Nitrogen (mg/L)	120 (60)	0.78	0.55
	Phosphorus (kg/day; total pollutant load control)	24.39	1.53	0.52
	Phosphorus (mg/L)	16 (8)	0.11	0.09
	Phenols (mg/L)	0.3	Below measurement threshold	

Values in ( ) are daily average.

**Environmental Performance (energy, etc.)**



**Environmental Performance (PRTR)**

PRTR listed substances		Releases				Transfers
		Air	Water	Soil	Total	
Ethyl benzene	kg/year	3,300	2.6	0	3,303	1.0
Xylene	kg/year	12,000	2.8	0	12,003	5.1
1,3,5-trimethylbenzene	kg/year	270	4.9	0	275	1.0
Toluene	kg/year	20,000	16	0	20,016	2.5
Benzene	kg/year	5,000	2.4	0	5,002	0.1
Ethylene glycol	kg/year	65	0	0	65	0
1,2-dichloroethane	kg/year	2,400	0	0	2,400	0
Phenol	kg/year	68	1.5	0	70	0.3

\* In addition to above, we treat 2-aminoethanol over 1 thousand kg per year, the release and transfer volume are 0 kg per year.

**Environmental Accounting**

Environmental conservation costs (million yen)

Category and Key Activity	Fiscal 2004	
	Investment	Cost
1. Business area: Pollution prevention	0	70
Global environmental conservation	0	0
Resource circulation	0	3
2. Upstream/downstream: Green purchasing	0	0
Reduction of environmental impact of products	6	549
Sulfur reduction of products	(0)	( 0)
Substitution of toxic substances in gasoline	(6)	(432)
Reducing aromatics in petrochemical products	(0)	(117)
3. Administration	0	41
4. Research and development	0	0
5. Social activity	0	0
<b>Total</b>	<b>6</b>	<b>663</b>

Purchasing recycled paper: 1 million yen

Economic benefit (million yen)

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Environmental conservation benefits

Item	Fiscal 2004	
	Reduction (year-on-year)	Impact
1. Benefits corresponding to worksite costs		
Resources input into business activities		
Energy input		- 6 (TJ)
Water input		- 106 (1000t)
Related to environmental impacts and wastes		
Emissions to air:	CO <sub>2</sub>	- 1 (1000t-CO <sub>2</sub> )
	SOx	0 (t)
	NOx	- 2 (t)
	Benzene	- 0.30 (t)
Emissions to water:	COD	0.00 (t)
Industrial waste :	Generated	- 355 (t)
	Recycled	- 373 (t)
	Landfill	16 (t)
2. Benefits related to upstream and downstream costs		
Related to goods and services		
Reducing sulfur content of products		(potential SOx: t)
High octane gasoline		0
Regular gasoline		0
Naphtha		- 9
Jet fuel oil		5
Kerosene		0
Diesel fuel		3
Heavy fuel oil A		-30
Heavy fuel oil C		208
LPG		0
Total		176
Reducing benzene in gasoline		- 54 (t)
Reducing aromatics in petrochemical products		- 1,983 (kl)
CO <sub>2</sub> emissions from product use		20 (1,000t-CO <sub>2</sub> )