



## Plant Report

### Environmental data on MFTBC's plants

\*Eliminated Amount converted into a different substance by incineration, decomposition, reaction, etc. \*Consumed: Amount either converted into a different substance by reaction or captured in products.

Data can be found on the following pages on the state of emissions of main indicators of air and water quality and on the uses of substances covered by the PRTR system at each of MFTBC's plants in fiscal 2004. (The limits shown are the strictest laid down under the various laws, ordinances and environmental protection agreements applicable to those plants. In the case of emissions into the atmosphere, maximums are shown. Type 1 designated chemicals whose use is one ton per year or more are shown in the following PRTR tables.)

#### Kawasaki Plant (ISO 14001 certified: December 1999)



Address	10, Okura-cho, Nakahara-ku, Kawasaki-shi, Kanagawa
Established	1941
Total site area	432,100m <sup>2</sup>
Total building area	304,700m <sup>2</sup>
Employees	3,890
Main products	Small, medium and large trucks, truck and bus engines and industrial engines
Production processes	Machining, stamping, welding, painting and assembling

#### ◎Air

Substance	Equipment	Unit	Regulation	Actual
NOx	Boilers	ppm	130	43
	Heating systems	ppm	150	74
	Ovens	ppm	25	7
	Gas turbines	ppm	70	5
Dust	Boilers	g/m <sup>3</sup> N	0.05	0.001
	Heating systems	g/m <sup>3</sup> N	0.05	0.002
	Ovens	g/m <sup>3</sup> N	0.25	0.005
	Gas turbines	g/m <sup>3</sup> N	0.025	0.001

#### ◎Water

Substance	Unit	Regulation	Max	Min	Average
BOD	mg/ℓ	300	49.9	0.5	18.4
SS	mg/ℓ	300	54	0.1	8.8
Oil	mg/ℓ	5	3.5	0.1	2.8
Total nitrogen	mg/ℓ	150	30	9.5	17.5
Total phosphates	mg/ℓ	20	2.5	0.25	1.3
Copper	mg/ℓ	3	ND	ND	ND
Zinc	mg/ℓ	3	0.48	ND	0.33
Manganese	mg/ℓ	1	0.32	ND	0.19

#### ◎Substances covered by PRTR (Units: kg/year)

Substance no.	Substance name	Quantity used	Emitted		Transferred		Recycled	Eliminated	Consumed
			Air	Public water	Sewage	Waste			
1	Zinc compounds (water-soluble)	1,818	0	0	29	202	0	0	1,587
16	2-aminoethanol	5,494	0	0	5,494	0	0	0	0
40	Ethylbenzene	33,474	13,080	0	0	0	0	0	20,394
43	Ethylene glycol	533,212	0	0	0	0	0	0	533,212
63	Xylene	304,351	182,572	0	0	422	37,164	3,816	80,377
227	Toluene	170,415	72,685	0	0	65	0	630	97,035
232	Nickel compounds	609	0	0	74	326	0	0	209
299	Benzene	6,321	138	0	0	0	0	0	6,183
309	Poly (oxyethylene) nonylphenyl ether	1,700	0	0	102	1,598	0	0	0
311	Manganese and its compounds	1,535	1	0	71	340	0	0	1,123
346	Molybdenum and its compounds	2,811	0	0	0	0	2,341	0	470
Total		1,061,740	268,476	0	5,770	2,953	39,505	4,446	740,590

#### Nakatsu Plant (ISO 14001 certified: November 2000, within expanded scope of Kawasaki Plant)



Address	4001, Aza-Sakuradai, Nakatsu, Aikawa-machi, Aiko-gun, Kanagawa
Established	1975
Total site area	35,700m <sup>2</sup>
Total building area	17,400m <sup>2</sup>
Employees	161
Main products	Gear-related parts for transmissions
Production processes	Machining, heat treating

#### ◎Air

Substance	Equipment	Unit	Regulation	Actual
NOx	Boilers	ppm	130	91
	Heating furnaces	ppm	200	40
Dust	Boilers	g/m <sup>3</sup> N	0.3	0.001
	Heating furnaces	g/m <sup>3</sup> N	0.25	0.008

#### ◎Water

Substance	Unit	Regulation	Max	Min	Average
BOD	mg/ℓ	300	6.9	0.7	1.3
SS	mg/ℓ	300	10.4	0.1	1.3
Oil	mg/ℓ	5	3.2	0.1	0.4
Total nitrogen	mg/ℓ	150	6.7	4.3	5.5
Total phosphates	mg/ℓ	20	0.17	0.04	0.11
Copper	mg/ℓ	3	ND	ND	ND
Zinc	mg/ℓ	3	0.15	ND	0.15
Manganese	mg/ℓ	1	ND	ND	ND

#### ◎Substances covered by PRTR (Units: kg/year)

Substance no.	Substance name	Quantity used	Emitted		Transferred		Recycled	Eliminated	Consumed
			Air	Public water	Sewage	Waste			
63	Xylene	2,700	11	0	0	0	0	0	2,689
227	Toluene	3,960	32	0	0	0	0	0	3,928
Total		6,660	43	0	0	0	0	0	6,617

#### Notes:

NOx (Nitrogen Oxides): General term for nitrogen oxides, which cause acid rain and produce photochemical oxidants.

SOx (Sulfur Oxides): General term for sulfur oxides, which cause sulfuric acid mist and acid rain.

BOD (Biological Oxygen Demand): Biological Oxygen Demand. Primary index for measuring contamination by organic substances in rivers. The higher the value, the less clear the water.

COD (Chemical Oxygen Demand): Chemical Oxygen Demand. Primary index for measuring contamination by organic substances in lakes, marshes and the sea. The higher the value, the less clear the water.

SS (Suspended Solids): Suspended Solids. Small particles of solid pollutants – 2 mm diameter or less – that are suspended in liquids

ND (Not Detected<Not Detectable>): Not detected. Does not mean "none," but below the applicable limit of detection.

# Appendix

## Oye Bus Plant (ISO 14001 certified: November 1998, as part of MMC Nagoya Plant; in November 2003, recertified within expanded scope of Kawasaki Plant)



Address	3998-16, Aza-Minami, Motohoshizaki-cho, Minato-ku, Nagoya-shi, Aichi
Established	1982
Total site area	42,600m <sup>2</sup>
Total building area	28,000m <sup>2</sup>
Employees	217
Main products	Small buses
Production processes	Welding, painting, assembling

### ◎Air

No emitting facilities

### ◎Water

Treatment is entrusted to another company

### ◎Substances covered by PRTR (Units: kg/year)

Substance no.	Substance name	Quantity used	Emitted		Transferred		Recycled	Eliminated	Consumed
			Air	Public water	Sewage	Waste			
1	Zinc compounds (water-soluble)	3,973	0	64	0	0	437	0	3,472
43	Ethylene glycol	25,905	0	0	0	0	0	0	25,905
63	Xylene	60,740	56,256	0	0	1,498	2,783	0	203
227	Toluene	7,836	5,602	0	0	842	1,132	0	260
232	Nickel compounds	1,608	0	195	0	5	855	0	553
Total		100,062	61,858	259	0	2,345	5,207	0	30,393

## ■Environmental Data on MFTBC's Affiliates' Plants

Data can be found on the following pages on the state of emissions of main indicators of air and water quality at each of MFTBC's main production affiliates in Japan in fiscal 2004. The limits shown are the strictest laid down under the various laws, ordinances and environmental protection agreements applied to those affiliates. In the case of emissions into the atmosphere, maximums are shown. (See p. 36 for technical terms used in the tables.)

### Mitsubishi Fuso Techno-Metal Co., Ltd. Nihonmatsu Plant (ISO 14001 certified: March 2003)

Address	100, Takada, Nihonmatsu-shi, Fukushima
Established	1971
Total site area	326,000m <sup>2</sup>
Total building area	65,400m <sup>2</sup>
Employees	772
Main products	Vehicle parts, construction machinery, industrial castings, forgings, and aluminum parts
Production processes	Casting, forging, aluminum die casting, metal molding, machining

### ◎Air

Substance	Equipment	Unit	Regulation	Actual
NOx	Boilers	ppm	200	53
	Heating furnaces	ppm	170	130
	Stand-alone generators	ppm	750	620
Dust	Boilers	g/m <sup>3</sup> N	0.2	0.006
	Heating furnaces	g/m <sup>3</sup> N	0.2	0.012
	Stand-alone generators	g/m <sup>3</sup> N	0.1	0.01
Dioxins	Incinerators	ng-TEQ/m <sup>3</sup> N	5	0.00014

### ◎Water

Substance	Unit	Regulation	Max	Min	Average
COD	mg/ℓ	20	9.5	3.0	6.3
BOD	mg/ℓ	20	7.0	1.2	4.1
SS	mg/ℓ	40	under 2	under 2	←
Oil	mg/ℓ	5	under 1	under 1	←

### Mitsubishi Fuso Bus Manufacturing Co., Ltd. (ISO 14001 certified: December 2003)

Address	1, Dojo, Fuchu-machi, Toyama-shi, Toyama
Established	1950
Total site area	176,900m <sup>2</sup>
Total building area	52,400m <sup>2</sup>
Employees	713
Main products	Medium and large buses
Production processes	Welding, painting, assembling

### ◎Air

Substance	Equipment	Unit	Regulation	Actual
NOx	Boilers	ppm	150	44.2
	Heating systems	ppm	170	20.4
Dust	Boilers	g/m <sup>3</sup> N	0.1	0.01
	Heating systems	g/m <sup>3</sup> N	0.2	0.01

### ◎Water

Substance	Unit	Regulation	Max	Min	Average
BOD	mg/ℓ	20	6.2	0.8	2.25
SS	mg/ℓ	40	19	4	10.8
Oil	mg/ℓ	5	ND	ND	ND

### PABCO Co., Ltd. Sagami Plant (ISO 14001 certified: June 2000)

Address	456, Kashiwagaya, Ebina-shi, Kanagawa
Established	1945
Total site area	88,700m <sup>2</sup>
Total building area	56,200m <sup>2</sup>
Employees	620
Main products	Bodies to be mounted on trucks
Production processes	Welding, painting, assembling

### ◎Air

Substance	Equipment	Unit	Regulation	Actual
NOx	Boilers	ppm	150	4.6
Dust	Boilers	g/m <sup>3</sup> N	0.1	0.002

### ◎Water

Substance	Unit	Regulation	Max	Min	Average
BOD	mg/ℓ	300	24.0	17.0	20.5
SS	mg/ℓ	300	8.2	5.0	6.3
Oil	mg/ℓ	5	3.2	2.8	2.8

## Editor's Notes

### ■ Origin of the Name "Fuso"

In 1932, ideas for a nickname for the new B46 bus were solicited from employees, and "Fuso" was chosen. "Fuso," to the ancient Chinese, was the name of a sacred tree that, they said, grew in the east where the sun rose, and was once used as another name for Japan. The tree is what we know today as the hibiscus.



Thank you very much for your interest in this Report on Environmental and Social Activities 2005.

All items in the report are in accordance with the "Environmental Reporting Guidelines" of the Ministry of the Environment, and we have tried to present them in a manner and style readily understandable to general readers.

To assist us in this effort, we would be grateful if you would give us your comments by taking a moment to complete the questionnaire at the end of the report.

As noted at the right, this environmental report itself reflects important environmental considerations.

### Environmental Considerations in Publishing this Report

**This report is printed on paper certified by the Forest Stewardship Council (FSC), using soybean oil ink and without water.**

#### ■ FSC-certified paper

FSC certification means the wood used in making the paper came from forests that have been independently inspected and certified as meeting the highest standards for environmental and social responsibility. It includes a "chain of custody" audit of all companies in the transport and production processes – trucking and shipping, manufacturing, wholesaling and retailing, and printing – to assure purchasers that the final product was in fact made from wood from such forests.

#### ■ FSC forest certification system

The system promotes sustainable forestry by certifying appropriate forest management and labeling wood harvested from such forests, and products made from such wood.

It serves to:

- 1) Help prevent decline and loss of forests throughout the world.

#### ■ Soybean oil ink ("soy ink")

The ink uses soybean oil instead of petroleum-based solvents, and is recognized by the Japan Environment Association as an "eco mark" product.

It serves to:

- 1) Reduce air pollution by reducing the presence of volatile organic compounds (VOCs),
- 2) Increase the recycling of printed matter because it is easier to separate from paper,
- 3) Reduce soil pollution because it readily decomposes in landfills, and
- 4) Reduce the use of petroleum products.

Overall, in comparison with conventional inks, the use of soy ink has significant benefits for people and the environment.

#### ■ Waterless printing

Waterless printing eliminates the use of chemical "dampening water" required in conventional printing.

It serves to:

- 1) Reduce the use of harmful organic substances and alcohol, and
- 2) Reduce the use of other harmful substances in plate making (e.g., conventional printing involves alkali solutions of at least pH12).

### Participating in "Team Minus 6 Percent"

MFTBC participates in a national campaign called "Team Minus 6 Percent," the purpose of which is to prevent global warming. It makes efforts to reduce CO<sub>2</sub> emissions by cultivating awareness among employees on the prevention of global warming, through the companies intranet and house journals.



## Environmental and Social Report 2005

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# Environmental and Social Report 2005 QUESTIONNAIRE

**FAX TO: 03-6719-0104 Corporate Communication Mitsubishi Fuso Truck & Bus Corporation**

Thank you for your interest in MFTBC's Environmental and Social Report 2005.

We would be very grateful if you would take a few moments to complete this questionnaire and return it by fax to the above number.

**Q1. How did you first learn about MFTBC's Environmental and Social Report? (Multiple answers allowed)**

- Newspaper article   
 Magazine article   
 Other media   
 MFTBC website   
 Other website  
Other(Please specify: \_\_\_\_\_ )

**Q2. In what capacity did you read this report? (Multiple answers allowed)**

- Customer   
 Supplier   
 Environmental officer at a company or other organization   
 Environmental NGO / NPO  
Research / educational institute, etc.   
Student   
Media organization   
Government agency   
Financial institution   
Investor  
Resident living near MFTBC facility   
Employee or officer of MFTBC or affiliate   
MFTBC employee or officer  
Other(Please specify: \_\_\_\_\_ )

**Q3. What in the report were you interested in? (Multiple answers allowed)**

- Business Policy   
Environmental Management   
Development and Design   
Procurement   
Production   
Logistics  
Sales   
Recycling   
Social Activities   
Topics   
Appendix

**Q4. What areas would you like to see improved in future issues? (Multiple answers allowed)**

- Business Policy   
Environmental Management   
Development and Design   
Procurement   
Production   
Logistics  
Sales   
Recycling   
Social Activities   
Topics   
Appendix   
Other(Please specify: \_\_\_\_\_ )

**Q5. What is your overall opinion of the report?**

- (1) Volume of information:   
Good   
Fairly good   
Passable   
Lacking a bit   
Lacking  
 (2) Quality of information:   
Satisfied   
Fairly satisfied   
Passable   
A bit dissatisfied   
Dissatisfied  
 (3) Clarity:   
Very easy to understand   
Fairly easy to understand   
Average   
A bit difficult to understand   
Very difficult to understand  
 (4) Number of pages:   
Too many   
Somewhat too many   
Appropriate   
Rather not enough   
Not enough

**Q6. What did you think of this year's report compared with that of FY2004? (Only answer if you read the FY2004 report.)**

- Much better   
Somewhat better   
No change   
Slightly worse   
Much worse

**Q7. How would you evaluate MFTBC's activities in reversing adverse environmental effects?**

- Very good   
Fairly good   
Average   
Not very good   
Poor

**Q8. In what ways is this report useful? (Multiple answers permitted.)**

- In understanding environmental and other issues   
In evaluating/rating the company   
In considering the purchase of a product  
In considering providing a loan, etc.   
In considering a business deal or transaction  
In considering formulation and issuance of a government policy   
In considering the living environment around a facility   
Not useful  
Other( \_\_\_\_\_ )

**Q9. What activities you would like to see MFTBC undertake in the future in order to further reduce effects on the environment?**

( \_\_\_\_\_ )

**Q10. If you have any other comments, please tell us. (If you need more space, please attach another sheet.)**

[ \_\_\_\_\_ ]

Thank you for completing this questionnaire. We would be very grateful if you would also provide the following additional information about yourself, to the extent you are willing.

Name			
Address			
Occupation and place of work			
TEL		E-mail	

Your opinions, comments and personal information will be maintained and managed with utmost care by our company, and information will be used to improve future reports. Statistical data will be presented in the FY2006 report, but not in a manner that identifies individuals.