

# Environmental Risk Management

In order to minimize the environmental risk that accompanies manufacturing activities, Komatsu is committed to acting in strict compliance with the legal requirements of national and local authorities. In addition to thoroughly implementing pollution mitigation and prevention measures, Komatsu is making efforts to reduce the volume of chemical substances that it handles and uses.

## Compliance and Pollution Mitigation and Prevention

Komatsu Group companies are responsible for positively implementing periodic reporting of results of environmental measurement and keeping of measurement data in strict compliance with the applicable laws and regulations of the national and local authorities. In FY2006, the Komatsu Group experienced no environmental infractions or accidents in Japan.

### Improvement of Underground Tanks

The replacement of existing underground tanks with above-ground tanks, the doubling of their tank walls, and the consolidation of underground tanks were carried out according to a plan. All of the tanks in operation for 20 years or more (142 tanks) have already undergone improvements. In the future Komatsu will take measures to address in order of precedence underground tanks that newly pass the 20-year mark.

### Renovation of Underground Tanks in Operation More Than 20 Years at Komatsu and the Komatsu Group's Manufacturing Facilities in Japan



### Management of PCB Wastes

Komatsu conducts proper storage and management of PCB wastes from transformers and other such items in accordance with Japan's Law Concerning Special Measures Against PCB Waste and Waste Disposal and Public Cleansing Law. As of March 2007, the Komatsu Group as a whole was in possession of approximately 630 drums of PCB wastes.

Komatsu has commissioned the Kitakyushu Office of the Japan Environmental Safety Corporation (JESCO) to treat its PCB wastes since December 2004. However, starting with treatment of the Head Office's PCB wastes in FY2008, Komatsu plans to arrange for early treatment in regional facilities.

### Soil and Groundwater Contamination

The Earth Environment Committee has established guidelines for the investigation of soil and groundwater contamination in Japan. Namely, Komatsu investigates the condition of soil/groundwater contamination at business units that are planned to be sold, closed, or demolished and, if necessary, takes suitable measures under the supervision of the local authority concerned. In addition, Komatsu conducted soil contamination investigations at business units currently in operation to check for contamination by organic chlorine-based chemical compounds, which had in the past been used in cleaning solvents and otherwise.

In FY2006, soil and groundwater investigations were conducted at five business units, including those where investigations were still underway at the end of FY2005. At one of these units no contamination surpassing the environmental quality standards for soil was detected, while three did have a higher concentration detected in certain parts of their premises. In FY2007, Komatsu will pursue these investigations to confirm the state of contamination and undertake necessary cleanup operations. Furthermore, the business unit at which contamination was detected in FY2005 has begun cleanup operations by excavating and removing the contaminated soil under the supervision of the local authorities, with cleanup expected to finish within FY2008.

## Chemical Substance Control

The enforcement of the Pollutant Release and Transfer Register (PRTR) Law\*1 of Japan obligates industrial plants to, on an annual basis, keep track of the amounts of Class I specific chemical substances (for substances handled in quantities of 1 ton or more) released and transferred and file notice with the authorities. Komatsu has been supervising the management of all relevant substances, even when quantities handled are less than 1 ton.

### Reduction of PRTR-related Substances

Among chemical substances subject to the PRTR, toluene, xylene, and ethylbenzene are the three substances making up almost 99% of the volume emitted by Komatsu and Komatsu Group manufacturing facilities in Japan. A breakdown of those emissions shows that most are released into the air. For some of these substances, Komatsu has been able to reduce its emissions volume through changing the constituent parts to those that have less impact on human health. However, due to an increase in the usage volume of paints as a result of substantially greater production volume, the volume emitted has continued to increase.

The Komatsu Group will continue to undertake initiatives to reduce the amount of environmental impact through improvements toward the proper control of such substances, mainly through the reduction of VOC\*2 releases (explained in greater detail later).

### Komatsu's Guidelines for the Control of Chemical Substances

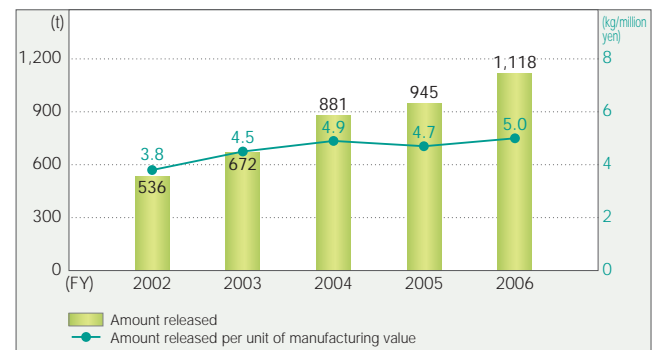
In order to develop products that take the environment fully into account and reduce environmental risk, Komatsu is implementing comprehensive control in keeping with the Komatsu Guidelines for the Control of Chemical Substances. Based on the established criteria for risk assessment, Komatsu has classified chemical substances subject to supervision into the three ranked categories of

- prohibited substances: 1,414 types
- substances to be reduced: 2,771 types
- substances to be controlled properly: 1,200 types

and is controlling the amounts of release and transfer of each individual chemical substance. At the end of FY2003, in order to implement these guidelines, Komatsu introduced a Chemical Substance Management System, including to its affiliated companies. Furthermore, in FY2004, by the use of this management system, Komatsu was able to improve its ability to prevent environmental pollution by assessing and addressing environmental impacts in advance.

In the context of forthcoming increases in manufacturing volume, how to achieve reductions in the volume of chemical substances handled and released will indeed be a critical issue.

### Changes in the Amounts of PRTR-related Substances Released at Komatsu and the Komatsu Group's Manufacturing Facilities in Japan



### Reductions in Release of VOCs

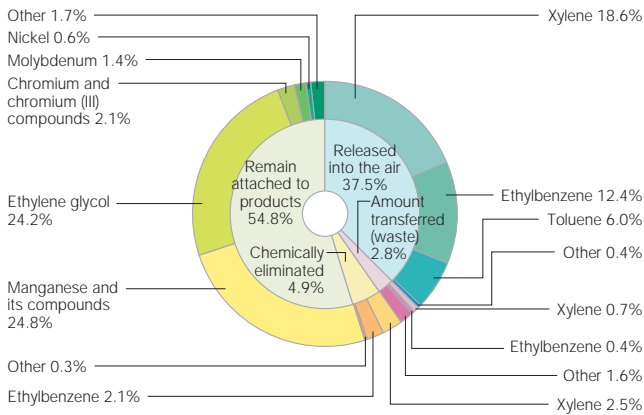
VOCs found in paints account for over 90% of the volume of chemical substances released by Komatsu. Significant reductions in VOC releases have already been achieved by changing the system for painting from a base coat/top coat dual-coat method to a system using single-coat paints that deliver the same performance through only one application.

However, as mentioned earlier, VOC releases continue to rise due to the significant increase in manufacturing volume. For that reason, Komatsu reformulated the target and created a revised plan based on concrete strategies coordinated with its action plan. The revised target is now to achieve reductions in VOC releases per unit of manufacturing value of over 20% and 50% by FY2008 and FY2010, respectively, compared with the FY2005 level. In the future the company will be

thoroughly implementing revisions such as (1) conversion to high-solid type paints (to reduce the amount of VOCs contained therein), (2) increases in coating efficiency, (3) conversion to water-based paints, and (4) conversion to powder coatings.

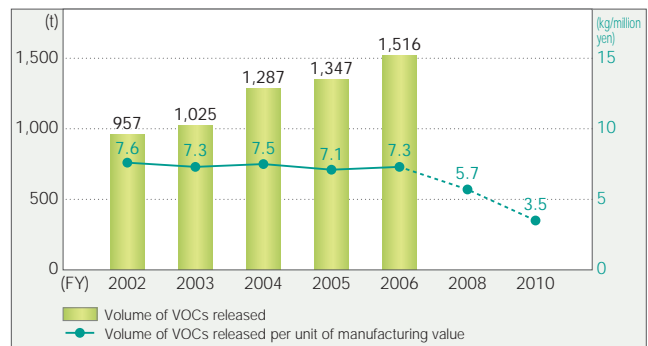
\*1 PRTR Law: Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management  
\*2 VOCs: Volatile Organic Compounds (primarily paint solvents)

### Breakdown of the Amount of PRTR-related Substances Released and Transferred at Komatsu and the Komatsu Group's Manufacturing Facilities in Japan



Note: Substances handled in quantities of 1 ton or more

### Volume of VOCs Released by Komatsu and the Komatsu Group's Manufacturing Facilities in Japan



### Names of Class I Specific Chemical Substances and the Volumes Released and Transferred (Handled volume of 1 ton or more)

(Unit: tons)

Number under the PRTR Law	Name	Volume handled	Volume released				Volume transferred		Chemically transformed or eliminated	Volume contained in products
			Air	Water	Soil	Buried	Sewerage	Disposed		
311	Manganese and its compounds	755.5	1.0	—	—	—	—	11.2	—	741.4
43	Ethylene glycol	734.0	0.2	—	—	—	—	11.5	—	722.3
63	Xylene	729.9	555.3	—	—	—	—	20.5	74.5	6.1
40	Ethylbenzene	451.9	370.9	—	—	—	—	13.3	64.1	1.3
227	Toluene	227.2	180.1	—	—	—	—	10.9	7.6	9.5
68	Chromium and chromium (III) compounds	63.7	0.0	—	—	—	—	2.4	—	61.2
346	Molybdenum and its compounds	41.5	—	—	—	—	—	0.1	—	41.3
231	Nickel	19.7	0.0	—	—	—	—	0.5	—	19.2
224	1,3,5-trimethylbenzene	19.3	9.5	—	—	—	—	0.2	1.1	8.5
69	Chromium (VI) compounds*	14.2	0.0	—	—	—	—	3.2	—	0.0
266	Phenol	9.7	0.0	—	—	—	—	1.1	—	8.5
100	Cobalt and its compounds	7.4	—	—	—	—	—	1.3	—	6.0
9	Bis (2-ethylhexyl) adipate	4.1	—	—	—	—	—	—	—	4.1
30	Bisphenol A type epoxy resin (liquid)	3.5	—	—	—	—	—	1.4	—	2.1
25	Antimony and its compounds	2.0	—	—	—	—	—	0.9	—	1.2
232	Nickel compounds	2.0	—	—	—	—	—	0.8	—	1.2
16	2-aminoethanol	1.7	0.0	0.0	—	—	—	1.7	0.0	—
283	Hydrogen fluoride and its water-soluble salts	1.7	—	—	—	—	0.1	1.6	—	—
299	Benzene	1.6	0.0	—	—	—	—	—	—	0.7
310	Formaldehyde	1.4	0.0	—	—	—	—	—	—	1.4
270	Di-n-butyl phthalate	1.0	0.7	—	—	—	—	0.2	0.0	0.1

\*During chrome plating, chromium (VI) compounds become chromium compounds. Therefore, the volume transferred and the volume contained in products are listed under \*chromium and chromium (III) compounds.\*