Environmental Action Plan and Performance

Murata has established an Environmental Action Plan to promote strategic reductions to its environmental burden. Results during fiscal 2006 against the context of the plan were as follows.

Performance for Fiscal 2006

Seventeen Targets Achieved

Of the 20 targets set for the year under the Environmental Action Plan, only three remain to be fulfilled. Specifically, despite strategies to cut volumes of volatile organic compound (VOC) emissions and atmospheric emissions of perfluorocarbons (PFCs), production growth rendered some goals unattainable.

Targets that have not yet been achieved and ongoing measures carried over to fiscal 2007.

Establishment of the 4th Environmental Action Plan

Based on the results for fiscal 2006, we have reassessed the focus of our measures and reset those targets that have already been met to formulate the 4th Environmental Action Plan in March 2007. Our annual goals are established with a view to achieving targets for fiscal 2010, with individual objectives also fixed for each manufacturing plant.

In addition, the Company's new targets have been expanded from a former focus on domestic operations to include overseas factories.

Each manufacturing plant implements its own measures toward achieving the plan's targets, in addition to a heightened emphasis on intra-Group activities.



RTOs combust VOCs at temperatures of 800°C or above to achieve 98% decomposition or detoxification.



Third Environmental Action Plan: Targets and Results for Fiscal 2006 and Plans for Fiscal 2007

Item		Targets for Fiscal 2006
	Enhancing environmental management system	Obtain ISO 14001 multi-site certification for the Murata Group in Japan
Environmental management		Establish internal control procedures for environmental costs/results; extend environmental cost management systems to overseas subsidiaries
Supplying environmentally friendly products	Environmentally conscious designs	Compile a database to make LCA data computation more efficient
	Reducing use of environmentally hazardous substances in products	Complete elimination of all RoHS-designated substances
		Reduce use of halogenated flame retardants 20% compared with FY2003
	Managing information related to environmentally hazardous chemical substances	Compile and commence operation of a database for procured materials (MADB)
	Reducing use of packaging materials and conserving energy consumed in distribution	Reduce amount of packaging materials used per unit of net production in Japan by more than 20% compared with FY2000
		Reduce CO ₂ emissions from physical distribution per unit of net production in Japan by more than 20% compared with FY2000
	Green procurement	Extend domestic materials greenness survey mechanism to overseas sites; establish green activities at overseas sites
		Achieve a green procurement ratio for office supplies approaching 100% for offices in Japan (disclosure of green procurement results)
	Global warming prevention	Reduce CO ₂ emissions per unit of net production in Japan by more than 23% compared with FY1990
	"Reduce, Reuse, Recycle" for resources and waste	Reduce total waste emissions per unit of net production in Japan by more than 35% compared with FY2000
		Attain a material recycling rate in Japan of 100%
Eco-friendly		Reduce water consumption per unit of net production in Japan by more than 35% compared with FY2000
business activities	Managing and reducing environmentally hazardous chemical substances used in production processes	Reduce atmospheric emissions of VOCs which contribute to generation of photochemical oxidants and suspended particulates by more than 3% compared with FY2000
		Reduce atmospheric emissions in Japan of PFCs which contribute to greenhouse gases by more than 50% compared with FY2002
	Risk management	Introduce remediation improvement measures to reduce currently excessive remediation time at plants and subsidiaries where soil and groundwater pollution has been confirmed
Social activities	Environmental communications	Continue to issue annual CSR report and release additional information two or more times per year via other media
		Issue CSR report
	Community / social contribution activities	At every plant and subsidiary, participate in environmental education programs and events for elementary and junior high school children, carry out cleanup activities in local areas, and support NPO/NGO, etc.

Results for Fiscal 2006	Achievement	Plans for Fiscal 2007	
Inspection completed in January; switch to multi-site certification at the end of March	Yes	Complete EMS (Environmental Management System) integration in Japan Hold meetings of officers responsible for environmental management in Japan, China and ASEAN countries (to be held regularly thereafter) Commence operation of environmental cost management systems overseas	
Investigated, but were unable to establish, internal control procedures During the first half of 2007, Environmental Management Department will formulate proposals to submit to operational sites Extension to overseas subsidiaries delayed until after the establishment of internal control procedures	_		
Compiled a database of materials by unit CO ₂ emissions to make LCA calculations easier	Yes	Continue product assessments Conduct surveys to construct a mechanism for efficient LCA unit compilation from site environmental databases	
 Eliminated stipulated substances for all RoHS-designated products Response completed by May 2006 for 99.9% of orders for all products on a numerical base; the remaining 0.01% are products eligible for RoHS special control (Our President determined at the request of customers) 	Yes	Revise list of RoHS exemptions → clarify reductions and eliminations and establish target values Polyvinyl chloride (PVC) → establish special interest group to investigate countermeasures (clarify targets, prioritize alternative assessments) Bromine flame retardants → establish special interest group to investigate	
Use of halogenated flame retardants reduced 34% compared with FY2003	Yes	countermeasures (clarify reduction targets, set numerical values)	
Determined MADB system requirements and completed system construction The system commenced operations in May 2007	Yes	Develop product database (for ASC modules)	
Packaging materials used per unit of net production reduced 23.1% compared with FY2000	Yes	Reduce amount of taped packaging used at domestic GR/BLM sites by 42% per unit of net production in Japan compared with FY2000	
CO ₂ emissions from physical distribution per unit of net production reduced 26% compared with FY2000	Yes	Reduce CO ₂ emissions from physical distribution per unit of net production in Japan by more than 30% compared with FY2000	
Issued Greenness Survey Procedures (for overseas plants) in December 2006 and commenced surveys	Yes	Continue to promote greenness surveys in response to legal stipulation in	
 Achieve a green procurement ratio for office supplies for FY2006 of 99.8% 	Yes	Japan and overseas and maintain a green procurement ratio for production materials of 100%	
CO ₂ emissions per unit of net production reduced 38.8% compared with FY1990	Yes	 Reduce CO₂ emissions per unit of net production in Japan by more than 23.5% compared with FY1990 Assess status of CO₂ emissions at overseas manufacturing plants Convert 56% of the domestic Company fleet to low-pollution vehicles 	
Total waste emissions per unit of net production reduced 39.0% compared with FY2000	Yes	Reduce total waste emissions per unit of net production in Japan by more than 40% compared with FY2000 Assess status of waste generation at overseas manufacturing plants Clarify definition of "zero emissions" at overseas manufacturing plants and attain a waste recycling ratio calculated using this definition of 70% or more	
Attained a material recycling rate in Japan of 100%	Yes		
 Water consumption per unit of net production reduced 40.0% compared with FY2000 	Yes	Reduce water consumption per unit of net production in Japan by more than 40% compared with FY2000	
 VOC atmospheric emissions rose 10.1% compared with FY2000 Target not yet achieved, despite introduction of RTOs at Yasu Plant and other reduction measures, as a result of overall production increases 	_	Reduce atmospheric emissions of VOCs to FY2000 levels Reduce atmospheric emissions in Japan of PFCs by more than 38% compared with FY2002 Establish reduction targets by 2010 for PRTR-designated substances	
Atmospheric emissions of PFCs reduced 33.9% from FY2002 Target not yet achieved, despite promotion of alternative substances at Toyama Murata Manufacturing Co., Ltd., and other reduction measures, as a result of overall production increases	_		
Measures implemented as scheduled at the relevant plants and subsidiaries	Yes	Continue remediation of soil and groundwater pollution building on past experiences and maintain a system with minimal environmental risk Reduce soil pollution and other environmental risks when conducting work that involves landscaping	
CSR Report 2006 published Posted "What's New" bulletins four times on the Murata website	Yes	Continue to issue annual CSR report and site reports Held anyironmental reports of the discussions with lead university students.	
Posted CSR site reports by plants and subsidiaries on the Murata website	Yes	Hold environmental roundtable discussions with local university students	
Environmental education programs: 24 schools, 1,300 participants Environmental events: 5 plants or subsidiaries, 7 events Cleaning activities: All facilities	Yes	Inaugurate a Murata Forest (tentative name) Preparation Committee, to include former employees, and commence related activities Continue environmental education programs and events for elementary and junior high school children and NPO/NGO support Continue developments under the Mid-Term Greening Plan Gain SEGES certification (Yasu and Yokaichi plants)	