Environmental Report

-9407

Group-wide Promotion of Tackling Global Warming



- 1. We have newly established CSR and Environmental Committee and are tackling issues further.
- 2. The Environmental Performance Evaluation System was reviewed for evaluation items and method to make it more reasonable and effective.

Environmental Policy

Subaru believes that responding to the problems of the global environment is one of the important tasks of management. Based on its corporate philosophy, Subaru has established an Environmental Policy, a policy for carrying out environmental conservation. Subaru has also established guidelines for specific actions—the Operating Criteria for Environmental Conservation in order to promote the Policy. Involving all of the employees, Subaru is moving its activities forward.

Environmental Policy (Established in April 1998)

Subaru recognizes the integral relationship between the environment and its business activities and strives to provide products that are friendly to the earth, society, and people. Subaru is protecting the environment to ensure our future.

Operating Criteria for Environmental Conservation

- (1) Subaru is committed to environmental conservation and gives consideration to environmental impacts at every step of product development, design, manufacture, sales, service, and disposal.
- (2) Subaru observes relevant laws, regulations and agreements with communities and industries, while also promoting voluntary activities in accordance with its own environmental objectives and targets as determined by the Company.
- (3) Subaru recognizes the importance of continual improvement and efforts to prevent pollution and encourages every employee to act with self-awareness and responsibility.
- (4) Subaru endeavors to raise environmental consciousness by providing educational opportunities for its employees according to their job status and job description.
- (5) Subaru regularly performs audits and inspections to improve its environmental conservation activities.
- (6) Subaru is committed to interacting within the community and engaging in joint activities to further environmental conservation.

Corporate Activities and Environmental Impacts

Subaru is a transportation manufacturer focusing on automobiles. Automobiles, which are a convenient and comfortable form of transportation, are now indispensable for living in a modern society. On the other hand, however, automobiles require limited global resources as materials and fuels. Consequently, they emit CO₂, which causes global warming, as well as other air pollutants. We believe that automobiles reflect an affluent society but fully understand that automobiles have such disadvantages, as well as advantages. With these in mind, we must work hard for a better future. Subaru accepts the task to aim for fusion of the global environmental response (drastically improving fuel economy and reducing gas emission) and the benefits of automobiles (pleasant driving, comfort and reliance) by considering the environmental impacts and reducing the environmental burden through the lifecycle of development, production, use, disposal, and recycling of automobiles.

^{3.} We have been involved in group-wide activities aiming to achieve the goals under Environmental Conservation Program.

SUBARU GROUP **Purchasing Materials** and Parts ·Green procurement Energy CO₂ Electricity. VOC^{*1}, etc. Natural gas, etc. **Research and Development** Fuel economy, gas emission Noise, recycling design Clean energy vehicles **Raw Materials** Recycling Wastes Iron, aluminum, 111 rate: 100% paint, etc. Production Prevention of global warming Chemicals Reduction of wastes Water Wastewater Water supply. industrial water, etc Logistics Recycling •Reduction of CO₂ •Reduction of packaging materials Chemicals PRTR chemical substances, etc. Sales Compliance, environmental beautification Collecting Use by the Customers bumpers ·Collecting bumpers Iron scraps Used Products ASR*2 Collecting and recycling used vehicles Airbag **CFC** alternative

Subaru's Overall Environmental Burden Concerning Automotive Business

Organization CSR and Environmental Committee Newly Established

We have a committee to achieve the objectives of the Environmental Conservation Program to embody the Operating Criteria for Environmental Conservation under the Environmental Policy. This committee chaired by an officer in charge of environmentrelated matters is a body run by representatives from all the business units. They met in May and November in 2007. This Corporate Environment Committee which reviewed only environment issues, was combined with the CSR Committee and changed to the CSR and Environmental Committee to discuss a wider range of issues, starting from the November meeting. The new committee will proactively tackle issues to reasonably manage CSR and environmental conservation.

(The Corporate Environment Committee and the CSR Committee were merged to form the CSR and Environmental Committee.)



Establishing an Environmental Management System Seven Subaru Dealers Now Acquired ISO 14001 Certification

Subaru already acquired ISO 14001 certification for all of its businesses, including the head office, by FY2004.

In FY2007, HOKURIKU SUBARU Corporation, Subaru's domestic dealer, also newly acquired ISO 14001 certification. Now, seven of Subaru's dealers in Japan have the certification. We also conduct an environmental audit regularly every year to measure the effectiveness of the Environmental Management System.

	For more details on our ISO 14001 certification status and environmental audits, please see our Supplementary Volume for Data on our website.
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Environmental Accounting

Working on Efficient Management by Understanding Environmental Costs and Effects

In FY2000 we introduced environmental accounting. Our environmental costs in FY2007 were 16.4 billion yen, an increase of 420 million yen compared to the previous fiscal year. This was due to an increase in R&D spending. We were able to cut production costs by 110 million yen.

On the other hand, economic benefits from our environmental activities totaled 2.0 billion yen, which represents an increase of 100 million yen compared to the previous fiscal year. This was mainly due to rising unit prices for valuable resources being sold.

For more details on our environmental accounting, please see our Supplementary Volume for Data on our website.

1 VOC: Volatile Organic Compounds which are volatile at normal temperature, including formaldehyde and toluene. They are recently viewed as a factor in sick house syndrome making people sick with irritation in eyes, nose and throat in newly built houses or buildings.

*2 ASR: Automobile Shredder Residue: Residue after scrapped metals for recycling removed from shredded car body. It is also called Shredder Dust

Evaluation System of Environmental Performance System Upgraded for Reasonable and Effective **Evaluation**

We have been working to improve the environmental performance by introducing an Environmental Performance Evaluation System in FY2002.

The system was reviewed for evaluation items and method to make it more reasonable and effective.

The evaluation result for FY2007 was 68.8% in total, 1.2% short against the targeted 70%.

The evaluation for each item was shown in the following chart. "Reinforcement of EMS activities as Subaru group" and "Reduction of environmental burden at products development process at higher level" were pointed as issues which need be addressed.

♦FY2007 Environmental Performance Evaluation







Environmental Performance Evaluation A hearing by the chairman and the vice chairman of the CSR and Environmental Committee

- *1 Environmental Information by Subaru car http://www.fhi.co.jp/envi/info/index.html [Japanese only]
- SUBARU ECOLOGY http://www.subaru.jp/ecology/index.html [Japanese only] *2
- SUBARU-EARTH.com http://www.subaru-earth.com/staging/ [English only]

Environmental Education and Enlightenment

Carry Out Environmental Education Systematically According to Different Levels of Employees

In FY2004, we prepared company-wide unified textbooks for environmental education. We have continued educating different levels of employees, ranging from new recruits to those receiving promotions every year.

In addition, we are trying to carry out activities according to the plan, including emergency drilling based on the Environmental



Management System (EMS) of each business area and company, general education on environment conservation for all the employees, Operations Improvement Case Study Presentation and educational support to business partners.

E-learning





Gunma Manufacturing Division's emergency drill

Environmental Communication **Distributing Environmental Information in** a Variety of Ways

Subaru has arranged contact channels to maintain communication with local residents in each business area, and distributed environmental information in a variety of ways. In the Subaru Visitor Center in the Gunma Manufacturing Division (please refer to "Contribution to local communities" on p. 30), we have a recycling lab to introduce our approaches to tackle environmental issues. Also, in Utsunomiya Manufacturing Division, we have an exhibition room introducing our activities to recycle wastes.



For environmental communication of our business sites and affiliated companies, please see our Supplementary Volume for Data on our website

Our Environmental Communication Tools

Media disseminating environmental information





SUBARU-EARTH.com (Environmental Information of affiliated companies in North America [English only])



The textbook for Delivery Eco Class by Gunma Manufacturing Division

Cases Where Limits Set in Environment-related Laws Were Exceeded, Environmental Accidents, and Complaints

The following table shows the number, in FY2007, of cases where the legal limits set in environment-related laws were exceeded (including cases where the limits from voluntary standards or limits agreed with the local area were exceeded) as well as the number of environmental accidents and environment-related complaints, plus all related detail. By investigating the causes of these events

FY2007 The Number of Cases Where Limits Set in Environment-related Laws were Exceeded and Details

Name of manufacturing division: Number of cases:		Details:	Main corrective measures:	
Gunma Manufacturing Division	2 (water pollution)	Measured value of Oizumi Plant's n-hexane mineral oil once over locally agreed, BOD twice over voluntary standards.	Causes identified and remedies taken. Excess over the locally agreed reported to administra- tive authorities.	
Saitama Manufacturing	1 (noise)	Noise level at Akabori River bed northeast of plant exceeded the legal limit.	No complaint or claim, but reported to authorities and controlled properly. Reduction of noise level from ventilating and other fans under study.	
Division	3 (water pollution)	BOD and pH in discharged swage water exceeded voluntary standards three times.	Absorbent in effluent treatment replaced and monitoring drains from dining hall enhanced.	
Aerospace Company (Handa West Plant)	1 (water pollution	Swage water discharged from Handa West Plant to river once exceeded voluntary standards.	To separate production and rain waters and monitor for reduction of pH fluctuation.	
Tokyo Office	1 (water pollution)	n-hexane animal and vegetable oils in swage water once exceeded the legal limit.	Reported to authorities. Trapping grease from dining hall and checking & monitoring swage processing enhanced.	

Subaru established voluntary standards, which are 20% stricter than environment-related laws and ordinances applied to each plant, and is working to achieve zero cases where these standards are exceeded

Environmental Performance

The main aspects of our environmental performance in FY2007 are as shown in the following graphs.

Emission of CO₂ and PRTR chemical substances were reduced.

We have achieved zero emissions^{*4} since FY2004 in terms of landfilled waste.

Also, we will actively take measures to reduce use of water even though the volume has increased this time.









or complaints and by implementing countermeasures, we are proceeding with our effort, to achieve our goal of zero cases.

For the details of cases exceeding the limits set in environment-
related laws, environmental accidents and complaints of our
business sites and affiliated companies, please see our
 Supplementary Volume for Data on our website.

FY2007 The Number of Environmental Accidents and Details

Name of manufacturing division:	Number of cases:	Details:	Main corrective measures:	
Gunma Manufacturing Division	3 spills within the premises	3 incidents happened, including discharge of about 30 liters of coolant overflowed from tank.	Accident prevention training intensified, check sheet and equipment standards revised, and bulwark provided. Also, service stock of emergency supplies at the site and other locations confirmed.	
Tokyo Office	4 spills within the premises	4 incidents happened, including oil leak from running test vehicle.	Operating procedure of test vehicles revised to prevent oil leak. Also, revealing articles on prevention of related incidents placed in in-house news letter.	

The environmental incidents described here were properly handled all within our business units and none of them affected the outside in any manner.

FY2007 The Number of Environment-related Complaints We Received and Details

Name of manufacturing division:		Details:	Main corrective measures:		
Gunma Manufacturing Division 2 (odor)		Complaint on paint odor received from residents on west side of Main Plant and north of Yajima Plant.	Remedies taken include: coconut husk filter installed, cleaning intensified, sterilizer and water based paint used. Then, odors under constant monitoring. In FY2008, more actions to follow.		
Aerospace Company (Utsunomiya Manufacturing Division)	1 (noise)	Complaint on flight noise received from resident on south side of air strip in Utsunomiya City.	Flight paths, altitudes, etc. modified considering local residents, which has been accepted.		

Trends in Amount of Used and Emitted PRTR Chemical Substances at All Manufacturing Plants



Trends in Amount of Water Used at All Manufacturing Plants^{*5}



*4 Subaru's definition of zero emissions: The total amount of landfilled waste (waste materials directly landfilled + waste materials landfilled after treated intermediately) is less than 0.5% of the total amount of waste materials excluding scrap metal (industrial waste + industrial waste subject to special control + general waste from business operations).
*5 Amount of water used: The total of water supply, industrial waste and underground water. The facilities in the head office area and the Subaru Parts Distribution Center are not included in the total.

Performance of FY2007 and Plan for FY2008 [Outline]

Subaru started a project to improve environmental issues in 1990, followed by Environmental Conservation Program, the first in 1993, the second in 1996 and the third in 2002.

In FY2007, the FHI Environmental Conservation Program started anew to preserve the environment covering the period from FY2007 through FY2011. Currently, we have been vigorously involved in group-wide activities to reduce environmental burdens.

Described here is the outcome of the items in the Environmental

Conservation Program (FY2007 through FY2011) which was first presented in the 2007 Social & Environmental Report and the plan for FY2008.

Results and plans in FY2007 for all the items of The FHI Environmental Conservation Program (FY2007 through FY2011) are available in our Supplementary Volume for Data on our website.

We have been working hard to prevent global warming.

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Items	Goals and Actions	Results in FY2007	Ev.	Plans in FY2008
Improving fuel economy [Automobiles]	Continue to improve fuel economy (FE) for every full model change and annual model change.	 All fully changed Forester and Impreza (exc. WRX and STI version) models achieved the FY2010 FE Standards. 	0	FE to be improved continuously on any fully or annually changed models.
	Increase models that achieve FY2010 FE Standards.	 ◆Cars meeting the FY2010 Standards upped to 90% of their total production. ◆The FY2010 Standards achieved in all weight categories.⁻¹ 	0	The scope of vehicles which meet the FY2010 Standards to be expanded.
	Promote improvement of FE toward for FY2015 FE Standards.	FE improved toward the FY2015 FE Standards. Cars meeting the Standards marketed in May, 2008.	0	FE to be improved continuously to meet the FY2015 FE Standards.
Developing products using clean energy	Electric vehicles: Develop vehicles for launch on the market in addition to business use.	40 R1e delivered to Tokyo Electric Power Co., Inc. and now under verification tests.	\bigcirc	Development to be promoted for its marketing in FY2009.
	Continue development of wind turbine systems and market expansion. [Eco Technologies Company]	 Mass production line for 2000kW large wind turbine system (SUBARU80/2.0) set. The 1st mass production unit delivered. 	\bigcirc	Sell the large wind turbine system to be promoted, while improving further the performance.
Curbing global warming	Aim to reduce CO ₂ emissions by 15% from manufacturing plants compared to the FY1990 level by FY2010.	◆CO₂ emissions reduced by 20% against FY1990.	0	CO ₂ emissions to be reduced by 13% against FY1990.
Reducing the environmental burden caused by logistics	 Be certain of meeting the Revised Energy Saving Law. Try to reduce energy used per sales by 5% compared to FY2006 by the end of FY2011. 	Energy used per sales reduced by 13.3% against FY2006.	0	Energy used per sales to be further reduced by 1% against FY2007.

We will continuously improve environmental issues at every phase

Items	Goals and Actions	Results in FY2007	Ev.	Plans in FY2008
Cleaner exhaust emission [Automobiles]	Improve on technology which has already achieved a 75% reduction on the 2005 Standards for exhaust emissions in order to further reduce exhaust emissions and promote the use of low exhaust emission vehicles.	◆Cars with emissions down 75% from the 2005 Standards (☆☆☆☆) upped to 64% of the total production. ◆Cars with emissions down 50% from FY2006 Standards (☆☆☆) upped to 90%. 1	0	Cars with emissions down 75% from the 2005 Standards to be further upped.
Improving recyclability [Automobiles]	Improve design to increase recyclability in new models to achieve a recycling rate of 95% in 2015.	 Recycling rate of shredder residue (ASR) met the 2015 Standards with 72.9%. Recycling rate of air bags met the legal standards with 94.2%. Harness design guidelines set with ART⁻² and announced in May, 2008. Recycle-efficient olfin resin used for most of resin materials for new cars. Its wide use to continue. 	0	Recycling rate to be further upped. Information on removal of copper-containing parts to be made open. Recycle-oriented new car design to be further enhanced.
Control and reduction of substances of environmental impact at manufacturing plants	Reduce volatile organic compound (VOC) emissions (g/m) in vehicle production lines by 30% compared to the FY2000 level by the end of FY2010.	◆Emissions reduced by 30.9% in g/m ² against FY2000.	0	The reduction level of 30% or higher in g/m² against FY2000 to be maintained.
Reducing wastes generated at manufacturing plants	Reduce the amount of waste materials by controlling sources of waste including increasing yield ratio, reducing removal stock, increasing coating efficiency and improving packaging.	 Wastes in FY2007 totaled 71,653 tons, a reduction by 21% against FY1999 and 2% against FY 2006. 	0	Due to large production increase, hike by 14% expected against FY2007. Remedies to be added to minimize the hike.
	Continue zero emissions (zero levels of landfilled waste both directly and indirectly).	 Zero emissions for both directly or indirectly landfilled kept (inc. burnt residues after thermal recycling). 	\bigcirc	Zero emission to be continued.
Green purchasing activities See Feature Articles on pp. 7 & 8	Request domestic and overseas suppliers to reduce substances of environmental impact and to establish an Environmental Management System (EMS). The following are the targets for establishing EMS. • Automotive Business Unit and Industrial Products Company: Maintain the completed system. • Eco Technologies Company and Aerospace Company: Aiming to complete establishment of the system.	 ◆97% of our suppliers (522/536) now have EMS. All the suppliers in Automotive (333 inc. 12 overseas) and Industrial Products (102) maintained their EMS status. All the suppliers in Eco Technologies (40) set EMS. 77% (47/61) of suppliers in Aerospace set EMS. 	0	Automotive, Industrial Products and Eco Technologies to keep 100% EMS status. Aerospace to work for 100% establishment.
Promoting environmental conservation activities at dealers	Support environmental conservation activities by dealers.	Important monitor items selected and status at dealer outlets confirmed.	\bigcirc	Insufficient items to be improved in a systematic way.
Implementing actions contributing to society	Continue to join environmental events, communicate with local residents at plants, and welcome visitors to plant tours. Continue to join cleaning and tree-planting activities in local communities around plants.	 Visitors for plant tours exceeded 100,000. Eco Class Delivery Service provided to about 4,200 pupils at 50 local elementary schools. A total of more than 200,000 people mobilized for continual local cleaning around plants. 	0	More people planned to be accepted. Cleaning activities around plants to be continued.
Disclosing environment- related information	Continue to publish Social & Environmental (S & E) reports, and aim at releasing S & E information through publicity channels from time to time. Improve and upgrade the contents of S & E reports (e.g., compliance with guidelines, and reports including affiliates).	 The 2007 S & E Report issued in July (Japanese) and Oct. (English). Efforts made to improve the contents including the Supplementary for Data, showing them on web site. The Report also includes activities of affiliates. 	0	The 2008 edition to be issued in July (Japanese) and Sep. (English). The coverage to be expanded for more group-oriented reporting.

*1 This is one of the goals of the previous Environmental Conservation Program (FY2002 through FY2006) and has been achieved in FY2007.
*2 ART: Automobile shredder residue Recycling promotion Team, which is run by Nissan, Mazda, Mitsubishi, Subaru and other 12 companies.

Fuji Heavy Industries Ltd. 39+ 2008 Social & Environmental Report