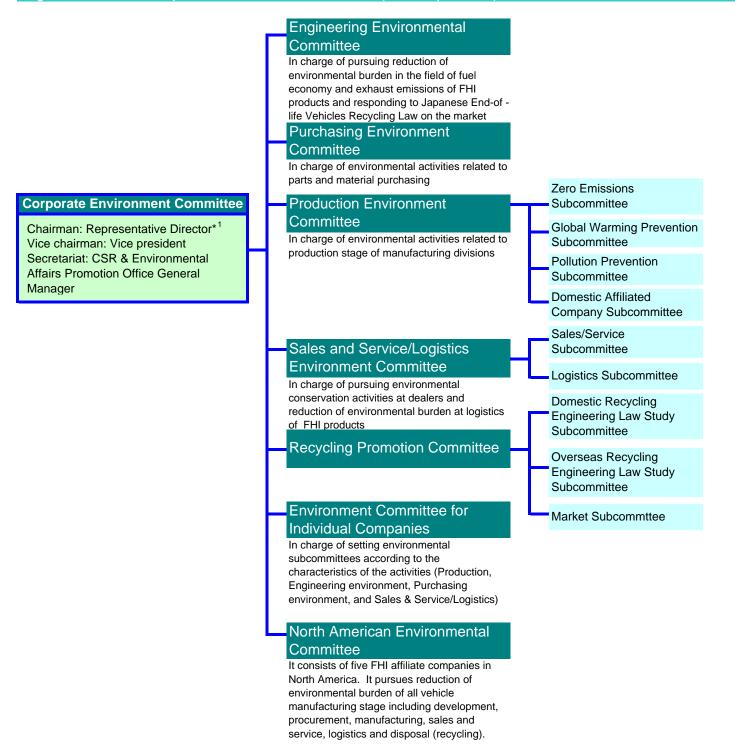
# FHI's Environmental Conservation Organization

# Organization

FHI Corporate Environment Committee consists of representative director as chairman and representative managers from all companies and divisions. Setting it as the hub of FHI's environmental conservation efforts, we are actively pursuing various activities to reduce environmental burdens by making whole-company strategies and plans and by collecting the achievements.

The progress of the Third Voluntary Plan for the Environment was confirmed at the two Committee meetings held in May 17 and December 5 in fiscal 2006.

Organization of the Corporate Environment Committee (As of April 2007)



# FHI's Environmental Performance Data (1)

# **Qualified Personnel in Environment-related Certifications**

FHI recognizes the necessity of acquiring environment-related certifications and is working systematically toward fostering qualified personnel every year.

# The Number of Personnel Holding Official Qualifications (As of March 31, 2007)

Qualification type			Total number of qualified personnel
Pollution control managers	Chief managers		6
		Type 1	6
	Air-related	Type 2	7
	All-Telated	Туре 3	46
		Type 4	14
		Type 1	10
	Water-related	Type 2	22
		Туре 3	12
	Dioxin-related		21
	Noise-related		47
	Vibration-related		42
	Tokyo Pollution Contro	I Managers	4
	Managers Responsible for T	okyo Water Quality	4
Energy management experts	(Heat / Electronic)		37
Soil contamination risk management	experts		1
Working environment measurement e	experts		2
Engineering manager for industrial wa	aste		13
Management representatives for indu	strial waste subject to specia	al control	41

# The Number of ISO14001 Internal Environmental Auditors

(in fiscal 2006) Number of internal auditors Qualification type **Division/Company name** ISO14001 Internal environmental auditors Gunma Manufacturing Division 134 (internal qualifications) 140 Aerospace / Eco Technologies Companies Industrial Products Company 27 Tokyo Office 65 Head Office area 74 440 **Overall FHI total** 

# Fiscal 2006 the Number of Environment-related Complains and Details

We received eight complains related the environment in fiscal 2006 as following table, and we have already taken appropriate corrective measures for all of them. The number of the compalins in fiscal 2006 has increased by three compared to fiscal 2005 (five complains). Accepting the result with sincerity, we will proceed with our effort to reduce complains.

Name of manufacturing division:	on: cases:		Details:	Main corrective measures:		
Aerospace Company (Utsunomiya	6 (noise)		Two complaints about noise from grounded aircraft, and one about noise from flying aircraft.	When the need arises to operate aircraft engine, we will give careful consideration to avoid weekday nights and all day on holidays.		
Manufacturing Division)			(at night) at the South No.2 Plant.	We have made it a rule to close the large door before starting rivet work during evening to night hours. (We have put up relevant instructions on the door.)		
			One complaint about noise caused by the autoclave exhaust system at the Handa West Plant.	We have reduced the noise by sticking sound-proof sheets to the exhaust ducts.		
Eco Technologies Company (Utsunomiya	1 (odor)	1	One complaint regarding the odor of paint was received from a local resident living west of the plant.	Although an investigation was conducted, the cause could not be determined. We will continue to be very careful about air emissions.		
Manufacturing Division)	1 (noise)	0	We received one complaint regarding the noise generated by forklifts from a local resident living west of the plant.	We carried out a training program for forklift drivers.		

# FHI's Environmental Performance Data (2)

# Fiscal 2006 The Number of Cases Where Limits Set in Environment-Related Laws were Exceeded and Details

FHI established voluntary standards, which are 20% stricter than environment-related laws, and is working to achieve zero cases where these standards are exceeded.

However, four cases have exceeded voluntary standards (one has exceeded the limits set in environment-related laws)in fiscal 2006 as following table, and we are taking appropriate corrective measures for them. The number of cases is fewer than fiscal 2005 (six cases) by two.

Name of manufacturing division:	Number of cases:		Details:	Main corrective measures:
Gunma Manufacturing Division	1 (noise)	$\sim$	Some of the noise levels measured at the south side of the Yajima Plant exceeded acceptable levels as defined by the voluntary standards.	Countermeasures were taken by installing inverters in exhaust fans in the plant and by changing the angle of the exhaust outlet. As a result, values dropped to within the voluntary standards.
Saitama Manufacturing Division	1 (noise)		The noise levels measured at the Akabori river bed, northeast of the plant, exceeded the acceptable levels stipulated by law.	This has been reported to the government, and is being managed in an appropriate manner. No complaints have been made regarding this matter.
	2 (water pollution)	<i>.</i>	On one occasion, a BOD measurement of the final effluent to the sewer exceeded the voluntary standard.	Replacing the absorbent used in the effluent treatment equipment resulted in a reduction that met the voluntary standard. Regular replacement has been integrated into standard procedure.
		~	On two occasions, pH measurements of the final effluent to the sewer exceeded the voluntary standard.	As a result of numerous investigations, these were found to be caused by clogging of the drain pipe in the lavatory. We are now conducting exhaustive cleaning routines.

# Fiscal 2006 The Number of Environmental Accidents and Details

FHI is working to reduce the number of incidents by keeping count of environmental accidents (including those solved internally by the relevant office or division) and by taking proactive measures so that accidents, which can have an environmental impact that extends beyond our premises, do not occur.

11 accidents occured (one had influence to the outside) in fiscal 2006 as following table, and we are taking appropriate corrective measures for all of them. The number of accidents is fewer than fiscal 2005 (15 cases) by four. We will keep working on prevention of environmental accidents.

Name of manufacturing division:	Number of cases:		Details:	Main corrective measures:
Gunma Manufacturing Division	5, of which 1 involved water	1	There was white water (muddy water) runoff from the site of plant foundation construction.	Although accident prevention training is provided to constructors every year, cautions and instructions were reissued to constructors.
	flowing off the premises.	2	Rain fell during operations to remove the underground gasoline tank in the Main Plant causing alkaline effluent to discharge from the concrete waste.	We have set up measures to prevent a recurrence of such problems by reviewing the operation procedure and revising the check sheet.
	•	3	While the sludge dolly for the centralized coolant equipment was being moved by forklift at the Oizumi Plant, due to a malfunction the dolly turned over, and the coolant spilled out into the rainwater ditch.	Subsequently we have inspected all our dollies, and transferred responsibility of cargo handling operations to the outsourcing companies.
		4	A fuel hose disconnected from the parts-transport truck and the fuel flowed out onto the premises of the Oizumi Plant.	We reviewed the daily check items, and requested all transport companies to inspect their fuel hose systems. We have followed up these measures to prevent similar incidents.
		5	Agent used for the cogeneration system was accidentally allowed to spill into a water conduit at the Yajima Plant.	We have reviewed the operation procedure, and re- implemented emergency response training to prevent the same thing happening again.
Aerospace Comapany	4	1	When air conditioners were loaded onto a truck, the coolant spilled out into the rainwater ditch.	We have instructed the contractor to take the necessary measures to prevent any recurrence of coolant leakage.
(Utsunomiya Manufacturing		2	When the inside of the cooling tower was being cleaned, the cleaning liquid overflowed into the rainwater ditch.	We have added steps to the cooling tower's management procedure for when repair work is required.
Division)		3	While chrome waste was being transferred to a tank truck, the transfer hose suddenly jerked, and some of the chrome waste spilled out into the rainwater ditch.	Reviewing the operation method and location, we have made changes to ensure that chrome waste is only handled at the tank truck depot.
		4	A chrome-containing paint can dropped from the loading platform of a truck, and some of the paint spilled out into the rainwater ditch.	We have made changes to ensure that the paint cans are put in a container when transported.
Tokyo Office	2	1	There was an oil leak when a test vehicle was driven for inspection.	To prevent oil leaks, we reviewed the operation procedure for running test vehicles with multiple sensors attached. (Preparation and operation of the check sheet)
		2	During transport of waste oil by dolly, the oil leaked.	We have revised the operation procedure for oil and grease transport in an attempt to prevent similar accidents.

# Fiscal 2006 Administrative Advice from Government Authorities

There were no administrative advice and recommendations from governmental authorities.

## (1) FHI (non-consolidated) Results of the Aggregated Environmental Costs and Effects

Concept and calculation method of environmental cost and economic effect

With reference to the guidelines of the Ministry of the Environment, FHI formulated its own guidelines (calculation method has been partly changed from fiscal 2005 data colecction) according to its environmental conservation activity organization, based on which the environmental cost and economic effects are calculated. (The same method is applied to FHI's group companies.) Please refer to p.9 to p.13 in the Supplementary Volume for Data related to 2006 Environmental & Social Report for the detail of calculation method. The data in this counting including the data of fiscal 2004 are calculated according to the method.

1) Costs for reducing environmental burden	Costs for reducing environmental burden during the production process	Cost Effect	Time					
2) Investment cost	Costs for obtaining environmental conservation effects that continue for several terms	Cost	Time					
3) Other costs	Cost not belonging to the above categorie	Cost not belonging to the above categories						
* Investments in environment-related facilities		nd indicated separately [Depreciation cost of facility in t from the viewpoint of placing value on the cashflow ]						

### Method used for calculating the environmental cost and the amount of money invested in facilities

The amount of money invested (amount invested 
25 million yen) in facilities that have been introduced for both environmental and other purposes, plus related cost (maintenance, and management etc.), and finally labor cost are calculated on differential or pro-rata basis. For example, investment amount and environmental cost for energy saving at one manufacturing facility is calculated as follows

Amount invested in facilities, environmental cost = K x (amount invested in the manufacturing facilities, maintenance cost, etc.)

This K is an environmental impact factor that is calculated by the following scheme:

K = (Total amount invested – Amount invested without energy-saving targets) / Total amount invested

Regarding small facilities whose investment amount is less than 25 million yen, and anything purchased primarily for environmental purposes, any costs related to these environmental facilities, such as investment amount and maintenance cost, are all included in the calculation. Please note that depreciation cost of facilities invested is not included in the environmental cost from the viewpoint of placing value on cash flow. Small expenses such as fixed asset tax and insurance cost are also extracted from the total.

Environmental cost and economic effect by environmental facilities are only recorded for 3 years starting from the 2nd year after the facilities are put into operation.

### Method used for calculating the economic effect

This calculation is based on information in the Ministry of the Environment's guidelines that states the attendant reductions in cost that can be gained from reducing environmental impact. interlinked with FHI's own independent ideas.

In detail. the reduction in waste treatment costs achieved by better control of waste output and changes in the waste treatment methods, and the reduction in energy costs, are all calculated according to their respective cost categories. With regard to environmental improvement measures that require no facilities, the difference in cost from the previous fiscal year (or the cost difference from cases where no such measures were taken) is recorded as an economic effect. Because currently it is difficult to obtain enough supportive evidence, other factors such as contributing to value-added products, and reducing risks (exempting the manufacturer from any liability, etc.), are excluded from this part of the economic effect calculation.

# Fiscal 2006 calculation result

• Environmental cost was 15.9 billion yen, an increase of 350 million yen (2.3%) compared with the previous fiscal year. The cost increased due to the increase in product R&D cost (+230 million yen) and due to cost for the countermeasures taken against environmental problems (+270 million yen), etc.

• Economic effect was 1.9 billion yen, an increase of 140 million yen compared with the previous fiscal year. Increase in profit from the sales of valued materials (+200 million yen) contributed significantly to the increased economic effect.

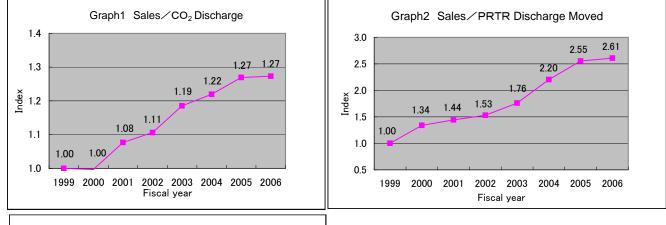
• Environmental performance (quantitative effects) targets set in the Third Voluntary Plan for the Environment were fulfilled through successful implementation of reductions in CQ discharge PRTR chemicals and VOC discharge

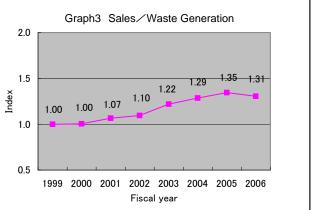
# Results of the Aggregated Environmental Costs and Effects in Fiscal 2006

		Environn	nental c	osts	Facilit	Facility investment		Economic effects	S			Environmental performance (qu			antitative effects)		
Cost categories in [] at the bottom is based on	Cos	sts (million	yen)	Main activities		illion yei	/	Description		ts (million	, ,	Category	unit	FY2006	gap vs.	FY2005	FY2004
the Guideline by the Ministry of Environment* <sup>1</sup>	FY2006	FY2005	FY2004	$\star$ : New measures in fiscal 2006 (cost increase factor)	FY2006	FY2005	FY2004		FY2006	FY2005 F	Y2004			result	FY2005	result	result
Waste treatment/recycling and waste	418	434	410	☆Introduction of paint sludge collection system	18	11		Reduced costs through waste control and	1,496	1,293 1	,370	Amount of waste materials	ton	73,062	1,362	71,700	73,024
reduction				☆Installation of new plant waste station				treatment method changes Profit from the sales of valued materials obtained				Amount of landfilled waste	ton	1	0	1	0
2)				Operation of the recycling center				through recycling				(directly and indirectly)					
<u> </u> [①-3]								Utilization of renewed engine oil									1
Energy conservation and CO <sub>2</sub> emissions reduction	41	37	38	☆Construction work for introducing natural gas (duct work, through flow boiler installed, plant heating)	254	254	487	Reduced energy costs	265	362	305	Energy consumption (crude oil equivalent)	1,000kL	134.2	0.2	134.0	
mem				☆Air conditioner of the manufacturing facility renewed				Integrated mini-car line				Energy consumption per sales	kL/100 million yen	14.0	0.2	13.8	14.3
Lo ix [①-2]				☆Inprovement of lighting facility				Effect of introducing co-generation systems				CO <sub>2</sub> discharge	10,000ton- CO <sub>2</sub>	22.7	-0.3	23.0	23.3
Reduction of CFC alternative discharge	0.7	0.7	0.5	A facility to fill/collect fluorocarbon installed	0.3	1	0	Collected and recycled CFC alternative	4	0	0						
Pollution control such as wastewater and	383	427	476	☆Measures to cope with odor from a paint booth	268	558	368	Reduced treatment costs	5	3	0	PRTR chemicals *2					1
exhaust gas treatment				☆Installation of new plant waste liquid treatment facility								Amount handled	ton	3,989	-13	4,002	4,285
<u>و</u> الله الله (۱)-1]				☆Installation of water-purifer tank								Amount released and handled	ton	869	-13	882	1,013
Reduction of VOC discharge	7.0	3.5	2.5	☆PTFE spray gun cup	8.4	0	82	Electrostatic painting of bumpers	111	96	83	VOC discharged (Automobiles only)	g/m <sup>2</sup>	43.8	-2.4	46.2	46.4
Total of A) cost	849	902	927		548	825	954	Total savings from the effects of reducing the environmental burden	1,880	1,754 1	,758			Letter L	Letter to the second		
Education and ISO14001 related matters	115	120	122	Environmental education, maintenance of ISO	—	-	-	-	—	—	_	*2 Totaling chemicals, of which			are one tor	n or more (	0.5 tons or
<u>آ</u> (3)				Maintaining ISO14001 (application fee, labor cost of full-time EMS staffs)								more for class I designated che	emical substar	nces).			
Product research and development	14,131	13,898	15,514	Improved fuel economy, cleaner emissions, and better recycling efficiency	532	647	973										
				Development of eco products													
Total of B) cost	14,246	14,017	-		532	647	010	(Total investment effects) N/A for the time being	0	0	0	Rates of Enviro	onmental Cons	ervation Ac			
Measures for end-of-life products	258	318	550	Collection of used bumpers and recycling of other parts Measures to cope with the ELVs Recycling Law	5	116		Reduced virgin material purchasing costs by using recycled materials	34	23	20				FY2006	FY2005	FY2004
Social contribution and other	586	346	903	Preparation of Environmental & Social Report, cleaning around the	0	0			0	0	0		of the R&D ntal conserv		0.000	0.000	
environmental measures				plants Environment-related projects by JAMA									nd research		28%	30%	29%
0 0 [3567]				Planting trees, measures for environmental discrepancies								Proportion	of the invest	ment for			ł
Total of C) cost	844	664	1,453		5	116	694	Total of other effects	34	23	20		ntal conserv		3%	7%	10%
Grand Total	15,938	15,584	18,017		1,085	1,587	2,621		1,914	1,777 1	,778	facili	ty investme	nt			1
*4 Cost estamping based on the Outdalings but	the Aliaiate		and a set of	Costs in the husiness area: 1-1 Pollution prevention costs:	1) 2 Clab				a a ata . (			• •					

### Environmental management indexes

Environmental efficiency of business activities, which is one of the environmental management indexes, was regarded as [ sales ÷ environmental burden]. They are calculated with the environmental burden in the production process by regarding the fiscal 1999 levels as the standard. The results are indicated in the following graphs. Efficiency in CO2 discharge and PRTR discharge moved have been improved well. The efficiency in waste generation has slightly decreased due to the increase of waste such as metal sold as valued materials. No graph is shown for landfilled waste as it has achieved "zero level" of waste and got maximum environmental efficiency since fiscal 2004.





\*1 Cost categories based on the Guidelines by the Ministry of Environment: ① Costs in the business area; ①-1 Pollution prevention costs; ①-2 Global environment conservation costs; ①-3 Resource circulation costs; ② Upstream and downstream costs; 3 Management activity costs; A R&D costs; S Social activity costs; E Environmental damage costs; O Other costs

### Environmental Management Data [p.11]

Note: As figures are rounded, some totals are not precise. Data collection period: from April 2006 to March 2007

# Calculation method and the basis for recording

Calculation was conducted according to FHI new environmental accounting guideline introduced in fiscal 2005 counting. Please refer to the previous page, (1) FHI (non-consolidated) Results of the Aggregated Environmental Costs and Effects, for outline of the new guideline, also p.9 to13 in the Supplementary Volume for the Data related to the 2006 E & S Report for the detail on our Web site.

# Fiscal 2006 calculation result

Regarding the environmental burden reduction activities in the manufacturing stage of the six domestic affiliated companies, environmental costs was 270 million yen (the same level as in the previous fiscal year) and economic effects increased by 1.0% to 200 million yen, compared with the previous year.

Generally the actual results of the environmental performance have been reduced. Especially amount of landfilled waste was reduced to a level equivalent to the 51% of the fiscal 2005 and 16% of the fiscal 2004. The total amount of the six companies maintained the zero emission level (the amount of the landfilled waste is 1% or less of the total waste generated) this year again.

They continue to make efforts to reach zero level of waste at each company.

Total amount of energy consumption and CO<sub>2</sub> emissions decreased and CO<sub>2</sub> emissions (26900 ton) have been reduced by 4.3% compared to fidcal 2005.

We aim at further reductions of energy consumption and CO<sub>2</sub> emissions to prevent global warming.

As for PRTR chemical substances, both the amount handled and the amount released and handled have been reduced.

# **Results of the Aggregated Environmental Costs and Effects in Fiscal 2006**

·Companies subject to data collection: Fuji Robin Industries Ltd., Yusoki Kogyo K.K., Fuji Machinery Co., Ltd., Ichitan Co., Ltd., Kiryu Industrial Co., Ltd., Subaru Logistics Co., Ltd.

Note: As figures are rounded, some totals are not precise. • Data collection period: from April 2006 to March 2007

	Environmenta		,		Economic e		, ,			al performance (quantitative effects)			
	categories in [] at the right bottom is	Cos	st(million y	ven)	Description	Effects (million yen)		yen)	Category	Unit	FY2006	FY2005	FY2004
	on the Guideline by the Ministry of pomment* <sup>1</sup>	FY2006 FY2005 FY2004		FY2004		FY2006 FY2005 FY2004		FY2004			result	result	result
	Waste treatment/recycling and	88	94	136		157	155	158	Amount of waste materials	ton	9,081	10,656	13,009
nmenta stage)	waste reduction [①-3]	treatment method changes, profit from the sales of valued materials obtained through [①-3]			Amount of landfilled waste (directly and indirectly)	ton	30	59	194				
environmental turing stage)	Energy conservation and CO <sub>2</sub> emissions reduction	12	13	17	Reduced energy cost	42	<mark>2</mark> 278		Energy consumption (crude oil equivalent)	kL	15,641	16,663	18,401
ing ∈ Ifacti									Energy consumption persales	kL/100 million yen	35.64	37.08	35.13
reducing t manufact	[①-2]								CO <sub>2</sub> discharge	ton-CO <sub>2</sub>	26,949	28,170	31,208
for re (at n	Pollution control such as wastewater	24	17	44	—	0	0	0	PRTR chemicals * <sup>2</sup>				
ts fo en (	and exhaust gas treatment								Amount handled	ton	39	40	116
Costs urden	[①-1]								Amount released and handled	ton	4	5	72
A) (A	Total of A) cost	124	124	198	Total savings from the effects of 199 182 166 reducing the environmental burden			*1 Cost categories based on the Guidelines by the Ministry of Environment:					
ent	Education and ISO14001 related	27	30	36	-	-	—	—	① Costs in the busines	s area			
tme ts	matters [3]								<ol> <li>1 Pollution preventio</li> </ol>	n costs			
Investment costs	Product research and development	110	106	90					<ol> <li>1)-2 Global environmer</li> </ol>		n costs		
B) In	[④]								1-3 Resource circulation				
ш	Total of B) cost	137	136	125	(Total investment effects) N/A for the time being	0	0	0	2 Upstream and downs				
ts	Change of raw materials, measures	10	12	17	-	0	0	0	③ Management activity	costs			
costs	for end-of-life products, social contribution and other environmental								④ R&D costs				
Jer	measures								5 Social activity costs				
Other	[2567]								6 Environmental dama	ge costs			
Ô	Total of C) cost		10	17	Total of other effects	0	0	0	<ul> <li>⑦ Other costs</li> <li>*2 Totaling chemicals, of which annual amounts handled are one ton or m</li> </ul>			on or moro	
Gro	nd Total	10 272	12 272	339		0	<b>v</b>	100	(0.5 tons or more for clas				
Gra	nu iolai	212	212			199	182	166		s i uesignale	a chemical s	ubstances).	

# (3) Overseas Affiliated Companies (4 companies) Results of the Aggregated Environmental Costs and Effects

We expanded the companies subject to data collection to four affiliated companies related to Subaru automobiles in North America in this fiscal year and prepared environmental accounting trial value for fiscal 2006 (from January to December 2006).

The results shown below are the first trial calculation and only for reference purpose.

# Calculation method and the basis for recording

We started calculation this time according to FHI new environmental accounting guideline introduced by FHI (non-consolidated) and six domestic affiliated company subcommittee members in fiscal 2005. Please refer to p.11, (1) FHI (non-consolidated) Results of Aggregated Environmental Costs and Effects, for outline of the new guideline.

# Fiscal 2006 calculation result (trial)

• Economic effects (755 million yen) has surpassed environmental costs (687 million yen) due to reduction of waste treatment cost.

• Environmental performance (quantitative effects) have been reduced since fiscal 2005.

Especially SIA, automobile production site, has continued to maintain zero waste materials directly landfilled.

# Trial Value of Fiscal 2006 Environmental Costs and Economic Effects

• Companies subject to data collection:SIA, SOA, SCI and SRD • Data collection period: from January to December 2006

	Environmental cost		Economic effe	ct	Environmental performance (quantitative effects)						
	ategories in [] at the right bottom is based on deline by the Ministry of Environment*1	Costs (million yen)	Description	Effects(million yen)	Category	Unit	FY2006	[trial]			
	· ·	FY2006		FY2006			result	FY2005			
ntal e)	Waste treatment/recycling and waste	95	Reduced costs through waste control and treatment method changes, profit	751	Amount of waste materials	ton	15,083	16,226			
itag	reduction		from the sales of valued materials		Amount of landfilled waste (directly and indirectly)	ton	616	790			
environment uring stage)	[①-3]		obtained through recycling								
env	Energy conservation and CO <sub>2</sub> emissions	4	Reduced energy cost	4	Energy consumption (crude oil equivaler	kL	42,161	45,446			
cing	reduction				CO <sub>2</sub> discharge	ton-CO <sub>2</sub>	81,252	89,738			
reducing environmental manufacturing stage)	[①-2]										
for (at	Pollution control such as wastewater and	94		0	Note: As figures are rounded,	some totals ar	e not precise.				
Costs t burden	exhaust gas treatment [1-1]	treatment [①-1]									
A) Cc bur	Total of A) cost	192	Total savings from the effects of	Total savings from the effects of reducing the environmental burden 755							
	,	42			*1 Cost categories based on	the					
hent	Education and ISO14001 related matters	72			Guidelines by the Ministry of Environment:						
B) Investment costs	[3]				① Costs in the business	,					
N N	Product research and development [④]	424			①-1 Pollution prevention costs						
B	Total of B) cost		(Total investment effects) N/A for the time being	0	1-2 Global environment		costs				
	Change of raw materials, measures for	28		0	1)-3 Resource circulatio	n costs					
sts	end-of-life products, social contribution				<ol> <li>Upstream and downs</li> </ol>	tream costs					
Ő	end-of-life products, social contribution and other environmental measures				<ul> <li>Management activity</li> </ul>	costs					
othei					④ R&D costs						
0 ()					5 Social activity costs						
Ŭ	Total of C) cost	28	Total of other effects	0	6 Environmental damage costs						
Gra	nd Total	687		755							

# Environmental Levels Data (1)-1 Gunma Manufacturing Division

## Gunma Manufacturing\* Fiscal 2006 Plant Site Data

## 1. Energy, Water, and Waste \*

### CO<sub>2</sub> emission

CO <sub>2</sub> emission	<unit: ton-co<sub="">2&gt;</unit:>	Water consumption	(Unit: m <sup>3</sup> )
Item	Fiscal 2006 actual result	Item	Fiscal 2006 actual result
$CO_2$ emission (ton- $CO_2$ )	175,791	Water consumption	2,510,395
Index (fiscal 1990 = 100)	84.3	Index (fiscal 1999 = 100)	49.9
Total consumption of electricity and fossil fuels (heavy oil, diesel oil, kero	sene, gasoline, urban gas and LPG)		

are converted. The CO2 conversion factor is taken from JAMA (in some cases other conversion factors are used)

### Waste materials and scrapped metals

	(Unit:t)
Item	Fiscal 2006 actual result
Scrapped metal	61,416
Amount of materials recycled within FHI	1,705
Waste materials directly landfilled	0
Waste materials externally treated	5,035
Waste materials landfilled after external treatment	1

\* Range of data calculation: Manufacturing plants of Gunma Manufacturing Division. Subaru Test & Development Center and Subaru Parts Distribution Center are not included.

## 2. Water Pollution Data (Each plant and Subaru Test & Development Center)

### Main plant

Water pollution data (Water Pollution Control Law, Gunma Prefectural Ordinances) Water conduit No.1,2,3,4, and 5

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
рН	5.8~8.6	6.1~8.3	7.5	6.2	7.2
BOD	25	20	18.5	0.5	3.6
SS	50	40	7.6	1.3	2.5
Oil content (inorganic)	5	4	2.1	0.1	0.8
Fluorine	8	6.4	1.1	0.2	0.6
Zinc	2	1.6	1.2	0.1	0.1
Soluble iron	10	8	0.2	0.1	0.1
Soluble manganese	10	8	0.2	0.1	0.1
Total phosphrus	16(8)	6.4	4.4	0.2	2.0
Total nitrogen	120(60)	48	16.0	1.7	5.0
Bacilus coli	3,000	2,400	240	0	64
[Notations] · · · pH: Hydr	ogen-ion conce	entration, BOI	D: Biochemica	al oxygen den	nand

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]···Bacillus coli= number/ml, all others except pH: mg/L Regulated values for Total Phosphorus and Total Nitrogen are daily average value.

### Ota north plant

Water pollution data (Water Pollution Control Law, Gunma Prefectural Ordinances) Water conduit No.1& No.5

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
рН	5.8~8.6	6.1~8.3	7.6	7.2	7.3
BOD	25	20	9.6	0.2	1.9
SS	50	40	11.4	1.4	6.4
Oil content (inorganic)	5	4	1.6	0.1	0.6
Fluorine	8	6.4	0.2	0.2	0.2
Zinc	2	2	0.0	0.0	0.0
Soluble iron	10	8	0.2	0.1	0.2
Soluble manganese	10	8	0.1	0.1	0.1
Total phosphrus	16(8)	6.4	5.4	2.1	3.5
Total nitrogen	120(60)	48	2.6	0.9	1.6
Bacilus coli	3,000	2,400	220	140	180
[Notations] · · · pH : Hydr	rogen-ion conce	entration, BOI	D: Biochemica	al oxygen den	nand

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]  $\cdots$  Bacillus coli= number/ml, all others except pH: mg/L

Regulated values for Total Phosphorus and Total Nitrogen are daily average value.

### lsesaki plant

Water pollution data (Sewerage Law) Effluent outlet G

Substance	Regulated values (by agreement)	Voluntary standard	Maximum values	Minimum Values	Average values
pН	5.7~8.7	6.0~8.4	7.5	6.7	7.1
BOD	300	240	110	4.2	59.0
SS	300	240	25 3.0		18.4
Oil content (inorganic)	5	4.0	1or lower 1or lower		0.0
Fluorine	8	6.4	2.5	0.5	1.5
Zinc	2	1.6	1.7*	0.1	0.6
Soluble iron	10	8	0.1	0.0	0.1
Soluble manganese	10	8	6.1	0.3	3.2
Total phosphrus	20	16	13.0	0.3	5.2
Total nitrogen	150	120	25.5	2.4	12.1

[Notations] --- pH: Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]--- all except pH: mg/L Regulated values for Total Phosphorus and Total Nitrogen are daily average value. \*The max value of zinc, 1.7mg/L, was measured before the amendment for sewage works regulations became effective on Dec. 11, 2006. The voluntary standard at this time was 4.0mg/L. All the measured values after the amendment have been within the voluntary standard.

## Yajima plant

Water pollution data (Water Pollution Control Law, Gunma Prefectural Ordinances) Water conduit No.1

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5.8~8.6	6.1~8.3	7.6	6.9	7.3
BOD	25	20	12.3	1.9	4.1
SS	50	40	5.2	1.0	2.3
Oil content (inorganic)	5	4	2.1	0.1	1.2
Fluorine	8	6.4	1.3	1.0	1.2
Zinc	2	1.6	0.3	0.1	0.2
Soluble iron	10	8	0.1	0.1	0.1
Soluble manganese	10	8	0.1	0.1	0.1
Total phosphrus	16(8)	6.4	1.5	0.5	1.2
Total nitrogen	120(60)	48	7.9	4.1	5.5
Bacilus coli	3,000	2,400	230	46	138

J····pH: Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Notations] SS: Concentration or suspended solids in water (diameter smaller than [Units]-the Bacillus colie number/ml, all others except pH: mg/L Regulated values for Total Phosphorus and Total Nitrogen are daily average value.

## Oizumi plant

Water pollution data (Water Pollution Control Law, Pollution Control Agreement with Ota City

Substance	Regulated values <sup>(</sup> by agreement)	Voluntary standard	Maximum values	Minimum Values	Average values
рН	5.8~8.6	6.1~8.3	8.2	6.9	7.5
BOD	25(10)	8	6.3	2.1	4.0
SS	50(10)	8	7.5	0.3	0.5
Oil content (inorganic)	5(3)	2.4	2.0	0.1	1.0 0.2 0.2
Fluorine	8	6.4 1.6	0.2	0.2	
Zinc	2(2)				
Soluble iron	10(5)	4	0.1	0.1	0.1
Soluble manganese	10(5)	4	0.1	0.1	0.1
Total phosphrus	16(8)	6.4	0.6	0.1	0.4
Total nitrogen	120(60)	48	11.0	2.1	4.8
Bacilus coli	3000(1000)	800	60	38	49

[Notations] · · · pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units] · · · Bacillus coline number/ml, all others except pH: mg/L Regulated values for Total Phosphorus and Total Nitrogen are daily average value.

### Subaru Test & Development Center

Water pollution data (Water Pollution Control Law, Gunma Prefectural Ordinances and Pollution Control Agreement with Sano-city) Regulating pondage

Substance	Regulated values (by agreement)	Voluntary standard	Maximum values	Minimum Values	Average values
pН	5.8~8.6	6.1~8.3	7.5	7.4	7.5
BOD	25	16	1.0	1.0	1.0
SS	40	32	1.0	1.0	1.0
Oil content (inorganic)	5	4	1or lower	1or lower	1 or lower
Fluorine	8	6.4	0.2	0.2	0.2
Zinc	2	1.6	0.0	0.0	0.0
Soluble iron	3	2.4	0.1	0.1	0.0
Soluble manganese	3	2.4	0.1	0.1	0.1
Total phosphrus	8	6.4	0.1	0.1	0.1
Total nitrogen	60	48	0.4	0.4	0.4

[Notations] ••• pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm)
 [Units] ••• all except pH: mg/L
 Regulated values for Total Phosphorus and Total Nitrogen are daily average value.

# Environmental Levels Data (1)-2 Gunma Manufacturing Division

## 3. Air Pollution Data (each plant)

### Main plant

Air Pollution data	(Air Pollution	Control Law)	
			_

Facilities	Substances	Regulated values	Voluntary Standard	Maximum values	Average values					
Boiler	NOx	150	120	101	86					
(No.5 & No.6)	SOx	60.3	48.2	0.21	0.2					
	PM	0.25	0.2	0.059	0.028					
Dry-off furnace	NOx	230	184	51	38					
(Electrocoat, 2 <sup>nd</sup> &final coat)	PM	0.2, 0.3	0.16、0.28	0.013	0.006					
[Linit] COMmo <sup>3</sup> NI										

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: q/m<sup>3</sup>N \*Among the 32 facilities specified by Law, we present here data of big boilers and dry-off furnaces. Also at the specified facilities not indicated

here, measured values were in the range of values specified by Law.

### Yajima Plant

Air Pollution data (Air Pollution Control Law)									
Facilities	Substances	Regulated values	Voluntary Standard	Maximum values	Average values				
Co-generation system	NOx	70	56	2.5	2.4				
(Gas turbine)	PM	0.05	0.04	0.002	0.002				
Boiler	NOx	230	184	150	98				
(No.1 & No.2)	SOx	62	50	0.8	0.39				
	PM	0.25	0.2	0.075	0.035				
Dry-off furnace	NOx	230、250	184	57					
(Electrocoat, 2 <sup>nd</sup> &final coat, PP)	PM	0.2, 0.35	0.16、0.28	0.032	0.020				

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N \*Among the 25 facilities specified by Law, we present here data of cogeneration system, big boilers and dry-off furnaces. Also at the specified facilities not indicated here, measured values were in the range of values specified by Law.

## Ota north plant

Air Pollution data (Air Pollution Control Law)

Facilities	Substances	Regulated	Voluntary	Maximum	Average
Facilities	Substances	values	Standard	values	values
Air conditioner	NOx	250	200	88	77.5
(heater)	PM	0.3	0.24	0.015	0.010
Dry-off furnace	NOx	230	184	50	30.5
	PM	0.35	0.28	0.064	0.039

[Unit] NOx: ppm, PM: g/m<sup>3</sup>N

\*We present here data of 3 facilities specified by Law.

## Oizumi plant

### Air Pollution data (Air Pollution Control Law)

Facilities	Substances	Regulated values	Voluntary Standard	Maximum values	Average values
Dry-off furnace	Dioxines	5	4	0.004	0.0037
Boiler	NOx	150	120	100	83.8
(No.1)	SOx	8	6.4	0.3	0.3
	PM	0.25	0.2	0.064	0.02
Alminum melting	NOx	180	144	74	37.57
furnace	PM	0.2	0.16	0.085	0.02

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

Dioxines: ng-TEQ/m<sup>3</sup>N \*Among the 9 facilities specified by Law, we present here data of melting furnace and big boilers. Also at the specified facilities not indicated here, measured values were in the range of values specified by Law.

### Isesaki plant

We have no facilities specified by Air Pollution Control Law except two small boilers with respite of emission standard,

however we voluntarily measure NOx and PM emitted from those boilers and results are within the voluntary standard.

### 4. PRTR

Gunm	unma Manufacturing Division (Main plant, Yajima plant, Ota north plant and Oizumi plant)							(Unit: kg/year, Dioxins: mg-TEQ/year)			
Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions	Transfer	Consumption	Solvent wiping Removal	Recycle		
1	none	Zinc compound (Water-soluble)	25,951	0	284	5,068	20,598	0	0		
9	103-23-1	Bis (2-ehtylhexyl) adipate	1,785	0	0	0	1,767	18	0		
16	141-43-5	2-Aminoethanol	2,078	0	168	19	0	1,891	0		
30	25068-38-6	Polymer of 4,4'-isopropylidenediphenol and 1- chloro-2,3-epoxypropane (liquid)	12,455	0	0	1,130	11,240	84	0		
40	100-41-4	Ethylbenzene	316,346	185,805	0	0	46,510	22,017	62,014		
43	107-21-1	Ethylene glycol	1,670,293	0	0	0	1,670,293	0	0		
63	1330-20-7	Xylene	680,304	341,032	0	0	209,701	40,065	89,505		
179	none	Dioxins	0	(0.13)	0	0	0	0	0		
224	108-67-8	1,3,5-trimethylbenzene	25,911	12,627	0	0	1,957	3,153	8,173		
227	108-88-3	Toluene	623,129	286,092	0	0	274,347	39,721	22,969		
232	none	Nickel compound	7,169	0	319	5,247	1,603	0	0		
272	117-81-7	Bis (2-ehtylhexyl) phthalate	12,092	0	0	246	11,846	0	0		
283	none	Hydrogen fluoride and water-soluble salts	4,195	0	1,244	2,951	0	0	0		
299	71-43-2	Benzene	16,694	56	0	0	16,638	0	0		
309	9016-45-9	Poly (oxyethylene) = nonylphenyl ether	1,215	0	91	940	86	98	0		
310	50-00-0	Formaldehyde	2,936	2,936	0	0	0	0	0		
311	none	Manganese and its compounds	12,062	0	332	5,812	5,917	0	0		
		Total	3,414,614	828,549	2,438	21,413	2,272,504	107,048	182,662		

Isesal	Isesaki Plant (Unit: kg/year, Dioxins: mg-TEQ/year)								Q/year)
Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions	Transfer	Consumption	Solvent wiping Removal	Recycle
63	1330-20-7	Xylene	4,067	117	0	0	3,950	0	0
227	108-88-3	Toluene	4,722	18	0	0	4,704	0	0
272	117-81-7	Bis (2-ehtylhexyl) phthalate	2,162	0	0	108	2,054	0	0
		Total	10,950	135	0	108	10,708	0	0

Subar	baru Test & Development Center (Sano City, Tochigi Prefecture)							(Unit: kg/year)		
Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions	Transfer	Consumption	Solvent wiping Removal	Recycle	
40	100-41-4	Ethylbenzene	3,224	11	0	0	3,213	0	0	
63	1330-20-7	Xylene	15,279	52	0	0	15,227	0	0	
227	108-88-3	Toluene	39,406	137	0	0	39,269	0	0	
299	71-43-2	Benzene	992	3	0	0	988	0	0	
		Total	58.901	204	0	0	58.697	0	0	

# Environmental Levels Data (2)-1 Utsunomiya Manufacturing Division

## Utsunomiya Manufacturing Fiscal 2006 Plant Site Data

# 1. Energy, Water, and Waste

CO <sub>2</sub> emission		<unit: ton-co<sub="">2&gt;</unit:>
Company	Fiscal 2006 result	Index (fiscal 1990 = 100)
Aerospace only	25,203	92.4
Incl. Eco Technologies	27,707	79.1
Total consumption of electricity and for	ssil fuels (heavy oil, diesel oil,	kerosene, gasoline, urban gas and LPG)

Water consumption		(Unit: m <sup>3</sup> )
Company	Fiscal 2006 result	Index (fiscal 1999 = 100)
Aerospace only	700,307	80.6
Incl. Eco	727,950	70.8

are converted. The CO<sub>2</sub> conversion factor is taken from JAMA (in some cases other conversion factors are used)

### Waste materials and scrapped metals (total of Aerospace and Eco Technologies)

	(Unit:t)
Item	Fiscal 2006 actual result
Scrapped metal	637
Industrial wastes & specially-controlled industrial wastes except scrapped metal	2,184
Waste materials directly landfilled	0
Waste materials landfilled after external treatment	0

## 2. Water Pollution Data

### Main plant

Water pollution data (Sewerage law, Utsunomiya city ordinances) Water discharge effluent and public sewerage

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5<,>9	5.4~8.6	7.9	6.3	7.2
BOD	less than 600	480	284.0	<0.5	41.0
SS	less than 600	480	152.0	<1.0	45.9
Oil content (inorganic)	5	4	<1.0	<1.0	<1.0
Oil content (norganic)	30	24	14	<1.0	6.1
Fluorine compounds	8	6.4	1.6	<0.2	0.6
Cadmium	0.1	0.08	0.02	<0.005	0.0
Syanide	1	0.8	<0.1	<0.1	<0.1
Total chromium	2	1.6	0.08	< 0.01	0.02
Hexavalent chromium	0.1	0.08	< 0.02	< 0.02	< 0.02
[Notations] · · · pH : Hydrog	en-ion concent	ration, BOD:	Biochemical o	oxygen demar	nd

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]...mg/L (except pH)

### Water pollution data (Water Pollution Control Law) Water discharge and public river

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5.8~8.6	6.0~8.3	7.9	6.3	7.5
BOD	30	24	6.4	<0.5	1.6
SS	50	40	5.2	<1.0	2.4
Oil content (inorganic)	5	4	<1.0	<1.0	<1.0
Oil content (norganic)	30	24	<1.0	<1.0	<1.0
Cadmium	0.1	0.08	< 0.005	< 0.005	<0.005
Syanide	1	0.8	<0.1	<0.1	<0.1
Total chromium	2	1.6	< 0.01	< 0.01	< 0.01
Hexavalent chromium	0.5	0.4	< 0.02	< 0.02	< 0.02

[Notations]...pl:Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]····mg/L (except pH)

Voluntary

standard

6.0~8.3

40

Maximum

values

8.0

Minimum Values

values

7.4

2.0

Water pollution data (Water Pollution Control Law) Water discharge and public river

values

5.8~8.6

50

efectural)

### South plant

Water pollution data (Sewerage law, Utsunomiya city ordinances) Water discharge effluent and public sewerage

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5<,>9	5.4~8.6	8.3	6.3	7.2
BOD	less than 600	480	166	6.5	51.6
SS	less than 600	480	147	11.0	52.5
Oil content (inorganic)	5	4	<1.0	<1.0	<1.0
Oil content (norganic)	30	24	23.7	<1.0	5.6
Cadmium	0.1	0.08	< 0.005	<0.005	<0.005
Syanide	1	0.8	<0.1	<0.1	<0.1
Total chromium	2	1.6	0.14	< 0.01	0.02
Hexavalent chromium	0.1	0.08	<0.02	< 0.02	<0.02
[Natations] and Libertan		nation DOD	Dis als a sector of a		e el

[Notations] · · · pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]···mg/L (except pH)

South No.2 plant Water pollution data (Sewerage law, Utsunomiya city ordinances) Water discharge effluent and public sewerage

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5<,>9	5.4~8.6	7.8	6.4	7.3
BOD	less than 600	480	153	<0.5	43.9
SS	less than 600	480	245	<1.0	49.5
Oil content (inorganic)	5	4	3.4	<1.0	1.1
Oil content (norganic)	30	24	23.5	<1.0	7.3
Fluorine compounds	8	6.4	2.2	<0.2	0.6
Cadmium	0.1	0.08	<0.005	< 0.005	< 0.005
Syanide	1	0.8	<0.1	<0.1	<0.1
Total chromium	2	1.6	0.20	<0.01	0.06
Hexavalent chromium	0.1	0.08	<0.02	< 0.02	< 0.02
[Notations]pH:Hvdrog	en-ion concent	ration. BOD:	Biochemical c	oxvaen demar	nd

SS: Concentration of suspended solids in water (diameter:smaller than 2mm)

### Handa plant

Water pollution data (Water Pollution Control Law, Aichi Prefectural Ordinances and Water Pollution Control Agreement with Handa City, etc.)

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values	
pH	6~8	6.2~7.8	7.7	6.5	7.1	
BOD	25	20	14.8	<1.0	4.6	
SS	25	20	20	2.0	8.4	
COD	25	20	17	1.9	8.4	
Bacilus coli (number/ml)	3000	2400	1,380	30.0	345.0	
			D: 1 · 1			

[Notations] · · · pH: Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]...mg/L (except pH)

6.6 <0.5 1.6 <1.0 <1.0 <0.005 4.3 2.8 <1.0 Oil content (inorganic) Oil content (norganic) Cadmium <1.0 <1.0 <0.005 5 30 0.1 0.08 < 0.005 Syanide Total chromium 0.8 1.6 <0.1 <0.01 <0.1 <0.01 <0.1 <0.01 
 I total chromium
 0.5
 0.4
 <0.02</td>
 <0.02</td>
 <0</td>

 I Hexavalent chromium
 0.5
 0.4
 <0.02</td>
 <0</td>
 <0</td>

 [Notations] •••• pH: Hydrogen-ion concentration, BOD: Biochemical oxygen demand
 SS: Concentration of suspended solids in water (diameter:smaller than 2mm)

 [Units] •••• mg/L (except pH)
 < 0.02 Water pollution data (Water Pollution Control Law) Water discharge and public river

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	5.8~8.6	6.0~8.3	8.0	6.4	7.4
BOD	30	24	3.7	<0.5	1.5
SS	50	40	3.2	<1.0	2.1
Oil content (inorganic)	5	4	<1.0	<1.0	<1.0
Oil content (norganic)	30	24	<1.0	<1.0	<1.0
Cadmium	0.1	0.08	<0.005	< 0.005	< 0.005
Syanide	1	0.8	<0.1	<0.1	<0.1
Total chromium	2	1.6	< 0.01	< 0.01	<0.01
Hexavalent chromium	0.5	0.40	< 0.02	<0.02	<0.02
[Notations] · · · pH : Hydrog					

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]····mg/L (except pH)

### Handa west plant

pH BOD

Water pollution data (Water Pollution Control Law, Aichi Prefectural Ordinances and Water Pollution Control Agreement with Handa City, etc.)

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pH	6~8	6.2~7.8	7.2	6.4	6.9
BOD	15	12	11.0	5.7	8.0
SS	15	12	6	3	3.6
Oil content (inorganic)	2	1.6	<0.5	<0.5	<0.5
Oil content (norganic)	2	1.6	<0.5	<0.5	<0.5
Fluorine compounds	5	4	0.3	<0.02	0.1
Syanide	0.5	0.4	<0.1	<0.1	<0.1
Total chromium	0.2	0.16	<0.04	<0.04	< 0.04
Hexavalent chromium	0.3	0.24	< 0.04	<0.04	< 0.04

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]...mg/L (except pH)

# Environmental Levels Data (2)-2 Utsunomiya Manufacturing Division

values

81

74

40

191

0.015

0.004

# 3. Air Pollution Data (each plant)

### Main plant (Aerospace/ Eco Technologies Company)

values

8

8

250

180

230

600

0.3

0.2

6.4

6.4

200

144

184

480

0.24

0.16

Air Pollution data (Air Pollution Control Law)

Substances	Facilities	Regulated	Voluntary	Maximum	Minimum	Average
Substances	Facilities	values	Standard	values	values	values
SOx	Boiler	8	6.4	—	-	_
NOx	Boiler	180	144	101	94	98
PM	Boiler	0.3	0.24	0.002	0.001	0.002

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

### Handa plant (Aerospace)

Boiler

Boiler

Boiler

Boiler

Furnace

Furnace

Co-generation

Dry-off furnace

Minimun

value

77

59

33

161

0.007

0.001

Average

values

79

67

36

178

0.011

0.003

Air Pollution data (Air Pollution Control Law)

Substances	Facilities	Regulated values	Voluntary Standard	Maximum values	Minimum values	Average values	Substances	Facilities	Regulated values	Voluntary Standard	Maximum values	Minimum values	Average values
SOx	Boiler	1.5	1.2	0.07	0.02	0.04	SOx	Boiler	1.5	1.2	0.03	0.02	0.03
NOx	Boiler	180	144	29	21	24	NOx	Boiler	180	144	31	26	28
PM	Boiler	0.1	0.08	0.002	0.002	0.002	PM	Boiler	0.1	0.08	0.002	0.002	0.002

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

Handa west plant (Aerospace)

Air Pollution data (Air Pollution Control Law)

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

## 4. PRTR

SOx

NOx

PМ

Utsunomiya Manufacturing Division (Aerospace company except Handa plant)

(Unit: kg/year, Dioxins: mg-TEQ/year)

Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions (Public water)	Water emissions (Sewarage)	Transfer		Solvent wiping Removal	Recycle
30	25068-38-6	Chloro-2,3-epoxypropane	2,694	152			1,036	1,506		
40	100-41-4	Ethylbenzene	405	112			23	270		
63	1330-20-7	Xylene	5,385	3,330			682	1,373		
227	108-88-3	Toluene	24,951	18,957			3,883	2,111		
69	none	Hexavalent chromium compounds	3,450			7	1,540	1,215	688	
311	none	Manganese and its compounds	1,175				929	246		
		Total	38,060	22,551		7	8,093	6,721	688	

Utsunomiya Manufacturing Division (Handa Plant [Aerospace company])

(Unit: kg/year, Dioxins: mg-TEQ/year)

(Unit: kg/year, Dioxins: mg-TEQ/year)

Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions (Sewarage)			Solvent wiping Removal	Recycle
227	108-88-3	Toluene	1,529	960		197	372		
311	none	Manganese and its compounds	1,123			449	674		
		Total	2,652	960		646	1,046		

### Utsunomiya Manufacturing Division (Eco Technologies Company)

Code	CAS No.	Chemical Substances	Amount handled	Air release	water)	Water emissions (Sewarage)	Transfer	Solvent wiping Removal	
		Ethylbenzene	6,978	3,240			2,089		1,649
	1330-20-7	Xylene	19,007	8,327			5,368		5,312
227	108-88-3	Toluene	3,107	1,823			1,176		108
		Total	29,092	13,390			8,633		7,069

### Air Pollution data (Air Pollution Control Law) Regulate olunta laximur Substances Facilities Standard

# Environmental Levels Data (3) Saitama Manufacturing Division\*

# Industrial Products Company Fiscal 2006 Plant Site Data

# 1. Energy, Water, and Waste

### CO<sub>2</sub> emission

Item	Fiscal 2006 actual result	
CO <sub>2</sub> emission (ton-CO <sub>2</sub> )	8,580	
Index (fiscal 1990 = 100)	74.1	
Total consumption of electricity and fossil fuels (heavy of	oil, diesel oil, kerosene, gasoline, urban gas a	nd LPG)

Water consumption	(Unit: m <sup>3</sup> )
Item	Fiscal 2006 actual result
Water consumption	33,882
Index (fiscal 1999 = 100)	88.4

are converted. The CO<sub>2</sub> conversion factor is taken from JAMA (in some cases other conversion factors are used)

### Waste materials and scrapped metals

Waste materials and scrapped metals	(Unit:t)			
Item	Fiscal 2005 actual result			
Scrapped metal	1,310			
Industrial wastes & specially-controlled industrial wastes	380			
Waste materials directly landfilled	0			
Waste materials landfilled after external treatment	0			

\* Currently we have no organization called "Saitama Manufacturing Division", but in this report we sometimes use in the meaning of a manufacturing plant of the Industrial Products Company for convenience purpose.

# 2. Water Pollution Data

Water pollution data (emission to public sewerage, Kitamoto City ordinances)							
Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values		
pН	5.0~9.0	5.4 <b>~</b> 8.6	8.7*	7.3	8.3		
BOD	600	480	590 <b>*</b>	93	222		
SS	600	480	190	25	115		
Oil content (norganic) 30 24 14 3.5 7.8							
[Notations] · · · pH : Hydrog	gen-ion concent	ration, BOD: E	liochemical ox	ygen demand			

SS: Concentration of suspended solids in water (diameter:smaller than 2mm)

[Units]···mg/L (except pH)

\* Please refer to p.10 in the Supplementary Volume for handling pH and BOD which exceed Voluntary Standards.

## 3. Air Pollution Data

We stopped operation of incinerators for waste materials on September 28, 2001 and we have no other working facilities specified by Air Pollution Control Law.

## 4. PRTR

Industria	ustrial Products Company							(Unit: kg/year, Dioxins: mg-TEQ/year)				
Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions	Transfer	Consumption	Solvent wiping Removal	Recycle			
40	100-41-4	Ethylbenzene	1,293	12	0	0	1,281	0	0			
43	107-21-1	Ethylene glycol	2,394				2,394					
63	1330-20-7	Xylene	6,910	40	0	0	6,870	0	0			
227	108-88-3	Toluene	10,517	115	0	0	10,402	0	0			
		Total	21,114	167	0	0	20,947	0	0			

# Environmental Levels Data (4) Tokyo Office

# **Tokyo Office Fiscal 2006 Plant Site Data**

# 1. Energy, Water, and Waste

### CO<sub>2</sub> emission

Item	Fiscal 2006 actual result
CO <sub>2</sub> emission (ton-CO <sub>2</sub> )	14,474
Index (fiscal 1990 = 100)	76.9

Total consumption of electricity and fossil fuels (heavy oil, diesel oil, kerosene, gasoline, urban gas and LPG) are converted. The CO<sub>2</sub> conversion factor is taken from JAMA (in some cases other conversion factors are used)

Waste materials and scrapped metals

Item	Fiscal 2005 actual result
Scrapped metal	116
Industrial wastes & specially-controlled industrial wastes	271
Waste materials directly landfilled	0
Waste materials landfilled after external treatment	0

# 2. Water Pollution Data

## Tokyo Office No.1 wastewater catch basin (final)

Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values
pН	5.7~8.7	5.9~8.4	8.4	7.6	8.0
BOD	300	240	230	13	102
SS	300	240	140	14	69
Oil content (norganic)	30	24	16	<5	5.8
Total nitrogen	120	96	52.8	3.7	32.5
Total phosphrus	16	12.8	6.3	0.4	3.5

SS: Concentration of suspended solids in water (diameter: smaleer than 2mm) Regulated values for Total Phosphorus and Total Nitrogen are daily average value. [Units]...mg/L (except pH)

### Water consumption

(Unit:t)

Water consumption	(Unit: m <sup>3</sup> )
Item	Fiscal 2006 actual result
Water consumption	111,630
Index (fiscal 1999 = 100)	94.3

## Tokyo Office No.2 wastewater catch basin (final)

Water pollution data (emission to public sewerage/Regulation: Mitaka City ordinances)									
Substance	Regulated values (prefectural)	Voluntary standard	Maximum values	Minimum Values	Average values				
pН	5.7~8.7	5.9~8.4	8.4	7.2	7.9				
BOD	300	240	110	1.5	32.8				
SS	300	240	67	5	22.4				
Oil content (norganic)	30	24	10	1	5				
Total nitrogen	120	96	38.2	1.0	15.5				
Total phosphrus	16	12.8	4.2	0.1	1.6				

 Total phosphrus
 16
 12.8
 4.2
 0.1

 [Notations] ··· pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter: smalaer than 2mm) Regulated values for Total Phosphorus and Total Nitrogen are daily average value. [Units] ···mg/L (except pH)

# 3. Air Pollution Data (each plant)

Air Pollution data (Air Pollution Control Law)									
Facilities	cilities Substances Regulated Voluntary Data								
Boiler of Eng'g	NOx	100	80	67					
No.2 building	SOx	out of scope	out of scope	<0.001					
(for heating)	PM	0.3	0.24	0.001					

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

# 4. PRTR

### **Tokyo Office**

								(0)	nt. kg/year)
Code	CAS No.	Chemical Substances	Amount handled	Air release	Water emissions	Transfer	Consumption	Solvent wiping Removal	Recycle
40	100-41-4	Ethylbenzene	20,291	0	0	0	20,291	0	0
43	107-21-1	Ethylene glycol	3,768	0	0	0	3,768	0	0
63	1330-20-7	Xylene	92,189	2	0	0	92,187	0	0
224	108-67-8	1,3,5-trimethylbenzene	12,213	0	0	0	12,213	0	0
227	108-88-3	Toluene	274,571	16	0	0	274,555	0	0
299	71-43-2	Benzene	6,821	2	0	0	6,819	0	0
		Total	409,853	20	0	0	409,833	0	0

(Unit: kg/year)

# Environmental Levels Data (5)-1 Domestic Affilitated Companies (6 companies)

## 1. Energy and Waste

### Fiscal 2006 Energy consumption and CO<sub>2</sub> emission

	Fuji Robin Industries	Yusoki Kogyo	Fuji Machinery	lchitan	Kiryu Industrial	SLCO*	6 companies total	Index (Fiscal 2001 = 100)
Energy consumption (crude oil equivalent KL)	1,271	697	5,213	7,534	276	651	15,642	86
CO <sub>2</sub> emission (ton-CO <sub>2</sub> )	2,281	300	10,690	12,068	453	1,157	26,949	88

\*SLCO = Subaru Logistics Co. Ltd.

# Fiscal 2006 Amount of waste materials and amount landfilled

	Fuji Robin Industries	Yusoki Kogyo	Fuji Machinery	lchitan	Kiryu Industrial	SLCO*	6 companies total	Index (Fiscal 2001 = 100)
Amount of waste materials(ton)	308	113	1,660	5,838	612	550	9,081	63
Waste materials directly landfilled (ton)	6.0	4.0	12.5	6.7	0.3	0.5	30	5.8

## 2. Water Pollution Data (companies that emit subject materials)

### Fuji Robin Industries Ltd.

Substance	Regulated values	Voluntary standard	Maximum values	Minimum Values	Average values
pН	5.8~8.6	6.0~8.5	7.5	7.1	7.3
BOD	max.25, avg.20	20	17	3.4	7.8
COD	max.160, avg.120	100	11	4.3	6.9
SS	max.160, avg.120		3	3	3
Oil content (inorganic)	5		1.6	<0.5	0.8
Zinc	2		<0.2	<0.2	<0.2
Soluble iron	10.0		<0.4	<0.4	<0.4
Chromium	2		0.4	<0.2	0.2
Hexavalent chromium	1	0.1	< 0.05	< 0.05	< 0.05
Fluorine and its compounds	8.0		5.7	1.6	3.4

[Notations] · · · pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]···mg/L (except pH)

## Fuji Machinery Co., Ltd.

Headquarters Plant wastewater (Sewerage Law)									
Substance	Regulated values	Maximum values	Minimum Values	Average values					
pH	5.7~8.7	7.3	7.0	7.2					
BOD	300	16	1	3.6					
COD	-	15	3	6.2					
SS	300	16	2	6.4					
Oil content (inorganic)	5	2	1	1.1					
[Notations] · · · pH : Hydrogen-ion con	Notations]···pH:Hydrogen-ion concentration, BOD:Biochemical oxygen demand, COD:Chemical oxygen								

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units] --- mg/L (except pH)

Jonan Plant (Water Pollution Control Law)

Substance	Regulated values	Maximum values	Minimum Values	Average values
pH	5.8~8.6	7.2	6.1	6.9
BOD	20	10	1	3.3
SS	20	5	2	2.4
Oil content (inorganic)	3	1	1	1

[Notations] · · · pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]···mg/L (except pH)

### Ichitan Co., Ltd.

Plant wastewater (Water Pollution Control Law)								
Substance	Regulated values	Voluntary standard	Maximum values	Minimum Values	Average values			
pH	5.8~8.6	6.0~8.4	7.2	6.7	6.9			
BOD	25	20	16	1.3	3.9			
SS	50	40	12	<0.1	2.0			
Oil content (inorganic)	5	4	2.8	<0.1	0.4			

[Notations] · · · pH : Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter:smaller than 2mm)

[Units]···mg/L (except pH)

### Yusoki Kogyou K.K.

Water Pollution Control Agreement with Handa City

Substance	Regulated values	Max.imum values	Minimum Values	Average values			
COD	(15)	7.1	3	5.5			
Total nitrogen	120	4.1	0.9	1.6			
Total phosphrus	16	0.59	0.16	0.31			
[Notations] ···· COD: Chemical oxygen demand							

[Units]...mg/L (except pH)

Haga Plant (Sewerage Law)				
Substance	Regulated values	Maximum values	Minimum Values	Average values
pH	5~9	7.2	6.6	6.9
BOD	600	6	1	2
COD	-	8	1	3.9
SS	600	19	2	6.7
Oil content (inorganic)	5	1	1	1
[Notations] · · · pH : Hydrogen-ion con	centration, BOD:Biochem	ical oxygen der	mand, COD:Ch	emical oxygen

SS: Concentration of suspended solids in water (diameter:smaller than 2mm) [Units]···mg/L (except pH)

## Subaru Locistics Co. Ltd

Substance	Regulated values	Voluntary standard	Maximum values	Minimum Values	Average values
pН	5.8~8.6	6.1~8.3	7.63	6.83	7.30
BOD	10	8	8.6*	2.4	4.6
SS	10	8	6	2.7	4.6

[Notations] ••• pH: Hydrogen-ion concentration, BOD: Biochemical oxygen demand SS: Concentration of suspended solids in water (diameter.smaller than 2mm) •\*BOD has exceeded Voluntary Standard once and appropriate control has been done. [Units] ••• mg/L (except pH)

# Environmental Levels Data (5)-2 Domestic Affilitated Companies (6 companies)

## 3. Air Pollution Data (each company)

# Fuji Robin Industries Ltd.

Air Pollution data (Air F	Pollution Control Law	)			
Facilities	Substances	Regulated values	Voluntary Standard	Maximum values	Average values
No.11 Boiler	NOx	250	100	56	55
	PM	0.3	0.1	<0.02	<0.02
Heater	NOx	250	100	70	54
	PM	0.3	0.1	< 0.03	< 0.03

[Unit] NOx: ppm, PM: g/m<sup>3</sup>N

## Fuji Machinery Co. Ltd.

Air Pollution data (Air Pollution Control Law)

Facilities	Substances	Regulated values	Amount measured
	SOx	0.28	<0.01
Headquarters Boiler	NOx	-	65
	PM	-	<0.001
Haga Plant Boiler(1)	SOx	0.28	<0.01
	NOx	-	60
	PM	-	<0.001
	SOx	0.28	<0.01
Haga Plant Boiler(2)	NOx	-	71
	PM	-	<0.001

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

# 4. PRTR (companies that emit subject materials)

Fuji Rol	oin Co	. Ltd.
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Fuji Robi	Fuji Robin Co. Ltd. (Unit: t/year)						
			Fiscal2006				
Code	CAS No.	Chemical Substances	Amount handled	Emission	Transfer		
40	100-41-4	Ethylbenzene	1.5	0	0.02		
63	1330-20-7	Xylene	8.3	0	0.08		
68	none	Trivalent Chromium compound	4.5	0.22	0		
69*	none	Hexavalent Chromium compound	6.2	0	0		
227	108-88-3	Toluene	2.3	0.01	0.15		
283	108-67-8	Hydrogen fluoride and water-soluble salts	1.7	0.2	0		
	Total		24.5	0.43	0.25		

PRTR (Materials handled 1ton or more/year are shown in this table. \*: Class I designated chemical substance is 0.5ton or more)

\* In fiscal 2006, at each domestic affiliated company except Fuji Robin and Yusoki Kogyo K.K, the amount of chemical substance subject to PRTR handled was less than 1 ton/year (Class I designated chemical substance: less than 0.5 ton/year).

Yusoki Kogyou K.K. (Unit: t/year					
				Fiscal2006	
Code	CAS No.	Chemical Substances	Amount handled	Emission	Transfor
			handled	Emission	Tansier
227	108-88-3	Toluene	15	1.44	0.03

## 5. ISO14001 Environmental Management System Certification Status

Company name	Timing of certification	Auditor		
Fuji Robin Industries Ltd.	Nov. 2002	TÜV Rheinland Japan Ltd.		
Fuji Machinery Co., Ltd.	Jun. 2002	TÜV Rheinland Japan Ltd.		
Ichitan Co., Ltd.	Mar. 2004	Japan Quality Assurance Organization		
Kiryu Industrial Co., Ltd.	Oct. 2004	TÜV Rheinland Japan Ltd.		
Subaru Locistics Co. Ltd	Feb. 2004	Japan Automobile Research Institute Registration Body		
Yusoki Kogyou K.K.	In August 25, 2006, Yusoki kogyo returned its ISO14001 certification to the certification organization (TÜV Rheinland Japan). The ompany returned the certification in order to be able to become a member participating in the Environmental Management System ctivities conducted by FHI's Utsunomiya Manufacturing Division. Since October 2006, the company has been preparing for ISO14 scertification in July 2007 as part of the investigation that will be conducted for the Utsunomiya Manufacturing Division to update its SO14001 certification.			

## Ichitan Co., Ltd.

Air Pollution data (Air Pollution Control Law)

Facilities	Substances	Regulated	Regulated Voluntary		Amount measured	
Facilities	Substances	values	Standard	Jun. 2006	Dec. 2006	
N III (Boiler)	SOx	8	4	0.18	0.36	
	NOx	180	90	<33	62	
	PM	0.25	0.15	0.009	0.003	

[Unit] SOx:m<sup>3</sup>N/h, NOx: ppm, PM: g/m<sup>3</sup>N

# Yusoki Kogyou K.K.

Air pollution data (Air Pollution Control Agreement with Handa City)

Facilities	Substances	Regulated values	Data
			0.002
Heater	PM	0.1	0.002
			0.004

【Unit】 PM: g/m<sup>3</sup>N

\*Kiryu Industrial Co. Ltd. and Subaru Logistics Co. Ltd. do not have any specified facilities.