

Panasonic Refrigeration Devices (Thailand) Co., Ltd.

Panasonic Group Site Report 2009
 FY2009 :April 1, 2008 - March 31, 2009

Address	60 Moo 19 Navanakorn Zone 2 T.Klongnueng A.Klongluang Pathumthani		
Lot area	60000m ²	Total floor area	12750m ²
Establishment day	1988/6	Employees	407persons
ISO14001 certification date	1998/7	ISO14001 renewed	2012/3
Major Products	Coil, Thermostat, Defrost Heater, Vend Mechanism, Cooling Unit		
Environmental Information disclosure	Communication FY2009 1 items	visitors on factory tour	0 persons
Contact	QA&ISO Team		TEL: (662) 529-1742-6



collaboration with municipality 3 items

Message from Compliance Administrator

Since the company's foundation in July 1988, we have been engaged in manufacturing activities responsible to the site communities, as we get business profit.
 We get environmental management system (ISO14001) since July, 1998.
 Our policy is based on the concept "Environmental preservation" So we control all business activities to comply with law and others requirements.



Compliance Administrators
MR.SUNTORN CHUMSRI

Main activities in FY2009

Target	Result
CO2 emissions Year-on-year basic unit : 3.5% reduction (CO2 emissions < 4,241 CO2 ton)	CO2 emissions : 4.77% reduction (CO2 emissions 3,414 CO2 ton) - Replacing desiccant dryer to refrigerant dryer - Automatics stop control for air compressor - Replacing submersible pump (old) from 3.7 kw to 2.2 kw - etc.,..
Water consumption reduction Year-on-year basic unit : 2.5% reduction	Water consumption reduction : 2.6% reduction - Changing of cement tank become to PE tank (Due to water leakage) - Repaing underground water pipe
Waste reduction Year-on-year waste generation : 3% reduction	Waste reduction : 8.4% reduction Every production line set quality loss reduction target. It have many effect, if quality loss down it effect to higher quality, cost reduction and waste reduction, too.

Products of Environmentally-conscious information



GS Evaporator

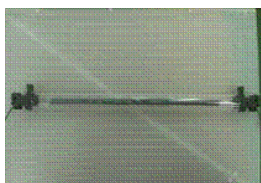
Evaporator for Air-Conditioner & Dehumidifier & Refrigerator / Condenser for Air-Conditioner & Dehumidifier / Aluminium Tube and Aluminium Fin.

Minimum joint effect to reduce energy consumption from brazing process.



e-damper / Thermostat

Automatic temp control by adjusting air flow/ Independent control for freezer nad fresh food compartment/ Long life and high reliability, No contact simple structure.



Defrost Heater

For periodically defrost's Evaporator by heating from radiant Heater.

Point of environmentally-conscious

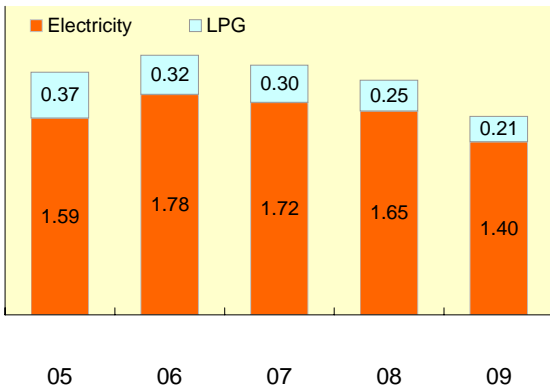
We aim to reduce CO2 emission by change glass tube cutting

Environmental performance data

Year displayed in graph ex) 2009: April 1, 2008 - March 31, 2009

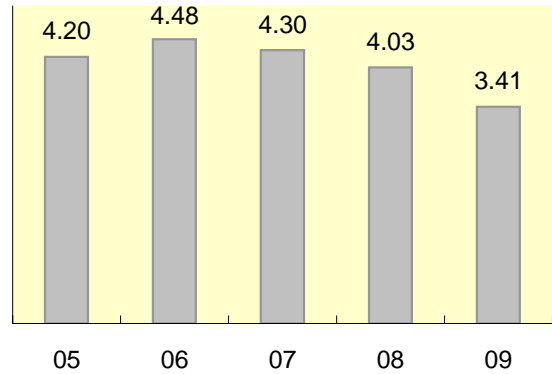
Energy

Unit: 1000kl



CO2 Emission

Unit: 1000t-CO2

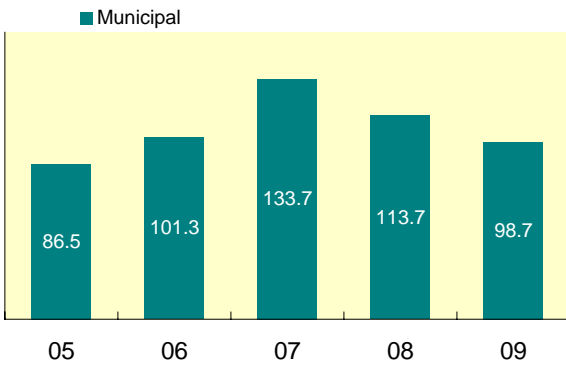


Calculation standards

Numerical values for respective countries listed on the Calculation Tools in GHG Protocol website by World Business Council for Sustainable Development (WBCSD) and World Resource Institute (WRI). Levels for 2002 (Electricity-Heat Steam Purchase_tool1.0_final) has been used for all years.

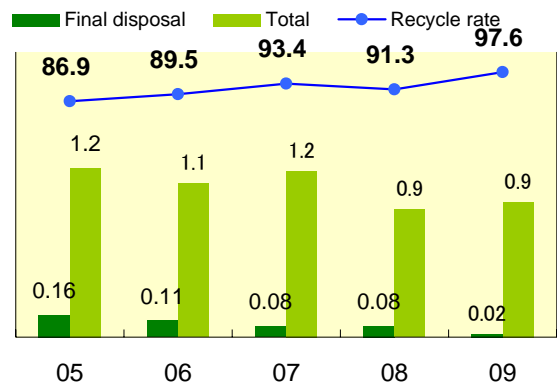
Water

Unit: 1000m³



Waste

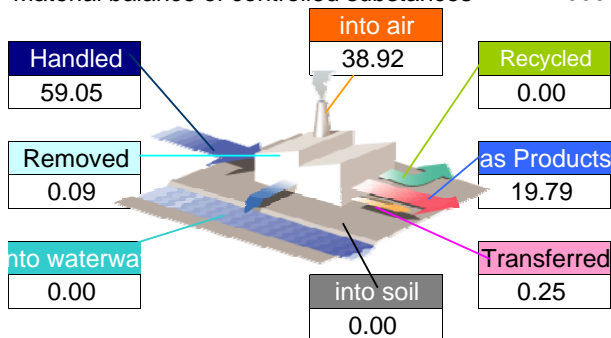
Unit: 1000t, %



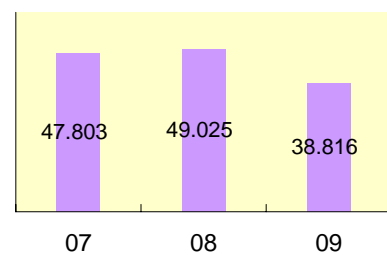
Chemical substances

Unit : ton

Material balance of controlled substances FY2009



Key target reduction substances



About The Panasonic Group's Chemical Substances Management in Factories

http://panasonic.net/eco/factory/chemical_substance/

About the above data

Energy resource use reduction and CO2 reduction by replacing desiccant dryer to refrigerant dryer, automatic stop control for air compressor, replacing submersible pump, etc..

Compliance FY2009

<Air pollutant measurement results>

	Unit	Facility name	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
SOx	Nm ³ /h	N/A			0.00		
		N/A			0.00		
		N/A			0.00		
NOx	ppm	N/A			0.00		
		N/A			0.00		
		N/A			0.00		
Particulate	g/Nm ³	Premix mixing room/AC	15.00	15.00	6.26	6.71	2 time/year
		Molding room/AC	15.00	15.00	6.52	7.32	2 time/year
		Finishing room/AC	15.00	15.00	6.26	7.56	2 time/year

<Water pollutant measurement results>

	Unit	Facility name	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
COD	mg/l	Wast#2 (Gutter)	120.00	120.00	49.16	116.00	1 time / Month
					0.00		
					0.00		
BOD	mg/l	Wast#2 (Gutter)	20.00	20.00	5.50	17.00	1 time / Month
					0.00		
					0.00		
Nitrogen	mg/l	N/A			0.00		
					0.00		
					0.00		
Phosphorus	mg/l	N/A			0.00		
					0.00		
					0.00		

<Noise and vibration>

	Unit	Measurement Area	Legal limit	Voluntary limit	Average measured	Maximum measured	Measuring frequency
Noise	dB	DT N/A			0.00		
		NT N/A			0.00		
Vibration	dB	DT N/A			0.00		
		NT N/A			0.00		

*Legal limit: The strictest value out of those specified by laws, ordinances or agreements.

*N/A(not applicable):The meaning when the facility is exempted from the regulation.

About excess of legal limit value

There is no item to report.

Improvement of direction by government, or point outs by neighbor

Occurrence situation	Countermeasure
There is no item to report.	

Environmental Policy

Panasonic Refrigeration Devices (Thailand) Co., Ltd. Is a refrigeration devices manufacturer, realize the responsibility towards society and environmental. Therefore, we have decided to use the Environmental Management System (ISO14001) in our company's management with determination to achieve as follow;

- 1)To strictly comply with the laws and environmental requirements.
- 2)To prevent and monitor discharge, minimize environmental impact on water, air and soil.
- 3)To manage waste from our company's activities including prevention and disposition of environmental impact at least.
- 4)To effectively control resource and energy consumption through reduction of consumption process, re-use and recycle.
- 5)To continually develop and improve environmental system.

We have the determination to push and support a variety of activities to be performed and to regularly attain in accordance within the frame of our company's policy that were mentioned in prior and were communicate to all personnel working on behalf of the organization including propagation to the public.

Aiming to reduction of environmental impact



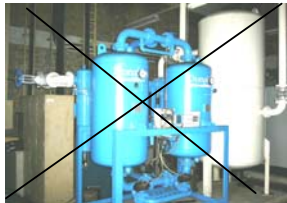
Air compressor

November 2008

CO2 emission reduction by replacing of desiccant dryer to refrigerant type

(CO2 emission reduction 230 CO2 ton/year)

After : Air Dryer : Refrigerant Type



Before : Air Dryer : Desiccant Type

Environmental Communication



External communication

September 12, 2008

PRDT organized "Yearly seminar" and we cleaning the beach activity in the morning.



External communication To comply with "eco relay"

October 12, 2008

Thailand Environmental Functional Group Committee organized "Mangrove reforestation Project" In total, therwere 500 volinteers from 20 Panasonic companies who planted 2,500 mangrove trees at Samutprakarn province.

Emergency preparedness and response

We establish the emergency preparedness and response procedures to identify and respond to accidents and emergency situations.

- We check the emergency equipment Ex. extinguisher, smoke detectors 1 time/month
- We train to employees 1 time/Year.



Case of a training

October 2008, Chemical spilled drill is annual program.

December 25, 2008, Evacuation Fire Drill is annual program of evacuation.