

Panasonic Automotive Systems Asia Pacific (Thailand) Co.,Ltd.

Panasonic Group Site Report 2011
FY2011 :April 1, 2010 - March 31, 2011

| | | | |
|-----------------------------------|---|---------------------------------|------------------------|
| Address | 101 Moo 2,Teparak Road, T.Bangsaothong,A.Bangsaothong, Samutprakarn 10540 Thailand. | | |
| Lot area | 18698m ² | Total floor area | 19633m ² |
| Establishment day | 1996/6 | Employees | 1106persons |
| ISO14001certification date | 1998/7 | ISO14001renewed | 2011/3 |
| Major Products | Car Audio, Electronic Toll Collection, DECK, | | |
| Environmental CommunicationFY2011 | | | |
| Information disclosure | 1items | visitors on factory tour | 28persons |
| Contact | Managing Director | collaboration with municipality | 4items |
| | | TEL: | 662-723-3010 ext. 4399 |



Message from Compliance Administrator

PASAP was changed the company name from Panasonic Automotive Systems (Thailand) to Panasonic Automotive Systems Asia Pacific (Thailand) on December 1, 2006. and still certified ISO 14001: 2004 Certification by SGS Registrars that Re-Registration on Mar 21, 2011. We intend to conserve the enviroment by reduce natural resource consumption to be sustainable business.



Compliance Administrators

Mr.Masahiro Doi

Main activities in FY2011

| Target | Result |
|--|--|
| Reduce CO2 emission by energy conservation activity. | We have CO2 reduction activity by participate from committee from every section (Green Factory Committee) to reduce electricity usage from the capacity increased and two shifts |
| Increase factory waste recycle ratio | We try to increase ratio of recycle to 100% by change the dispose of hazardous waste from sanitary landfill to energy recovery (incineration) in cement portland industrial. |

Products of Environmentally-conscious information



Car Audio :
New model of Car Audio implement follow RoHs and ELV Directive and Matsushita Policy (No Hazardous Substance in Product).



ETC :
Electronic Toll Collection (ETC)
ETC process are comply with RoHS and ELV directive.
Main chemical substance are Lead-Free.



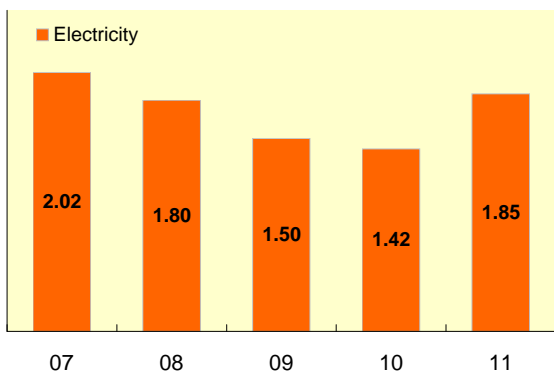
DECK PCB :
PCB of DECK Mechanism in Car audio was product of PASAP that establish on beginning of 2010. DECK PCB process are comply with RoHS and ELV directive. Main chemical substance are Lead-Free.

Environmental performance data

Year displayed in graph ex) 2011: April 1, 2010 - March 31, 2011

Energy

Unit: 1000kl



Natural Energy

FY2011

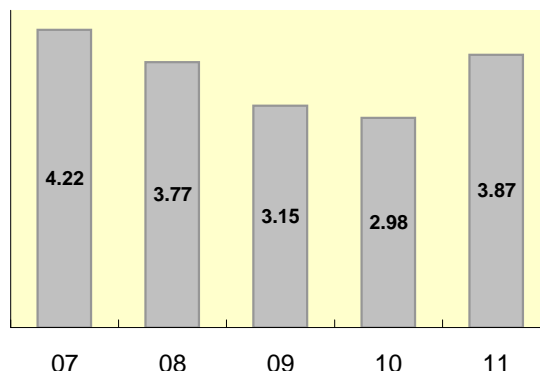
 1000kW/h

Calculation standards

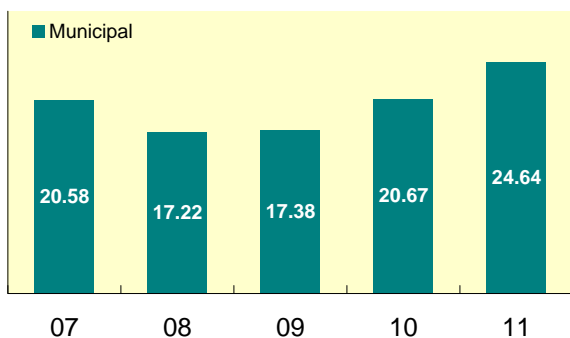
$$\text{CO2 emissions (kg CO2)} = \text{Amount of energy-specific use (each unit)} * \text{Energy-specific CO2 emission coefficient (kg CO2/ unit)}$$

CO2 Emission

Unit: 1000t-CO2



Water

Unit: 1000m³

Circulated water

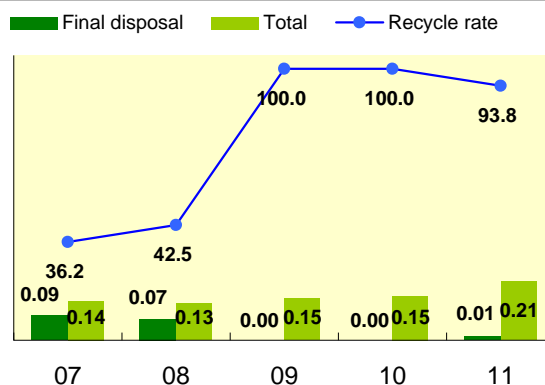
Rain-water

FY2011

 m³
 m³

Waste

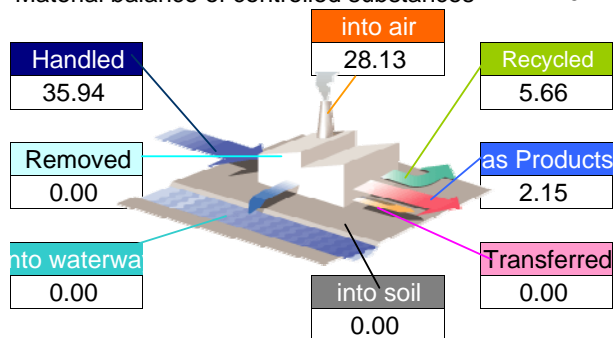
Unit: 1000t, %



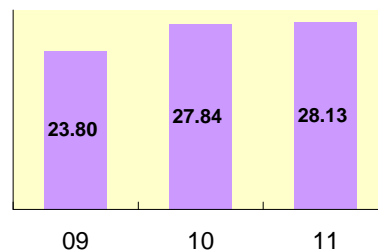
Chemical substances

Unit: t

Material balance of controlled substances FY2011



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

Main Chemical Substances are Isopropyl Alcohol and Ethanol.

Compliance FY2011**<Air pollutant measurement results>**

| | Unit | Facility name | Legal limit | Voluntary limit | Average measured | Maximum measured | Measuring frequency |
|-------------|--------------------|---------------|-------------|-----------------|------------------|------------------|---------------------|
| SOx | Nm ³ /h | | | | | | |
| | | | | | | | |
| | | | | | | | |
| NOx | ppm | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Particulate | g/Nm ³ | | | | | | |
| | | | | | | | |
| | | | | | | | |

<Water pollutant measurement results>

| | Unit | Facility name | Legal limit | Voluntary limit | Average measured | Maximum measured | Measuring frequency |
|------------|------|---------------|-------------|-----------------|------------------|------------------|---------------------|
| COD | mg/l | | | | | | |
| | | | | | | | |
| | | | | | | | |
| BOD | mg/l | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Nitrogen | mg/l | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Phosphorus | mg/l | | | | | | |
| | | | | | | | |
| | | | | | | | |

<Noise and vibration>

| | Unit | Measurement Area | Legal limit | Voluntary limit | Average measured | Maximum measured | Measuring frequency |
|-----------|------|-------------------|-------------|-----------------|------------------|------------------|---------------------|
| Noise | dB | DT SMT Production | 90.00 | 85.00 | 78.80 | 81.40 | 2 times/year |
| | | NT | | | | | |
| Vibration | dB | DT | | | | | |
| | | NT | | | | | |

*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

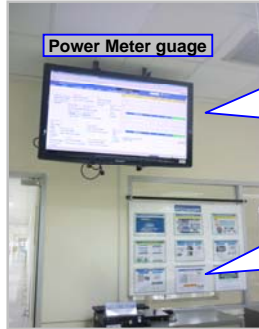
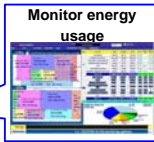
| Occurrence situation | Countermeasure |
|----------------------------|----------------|
| There is no item to report | |
| | |
| | |

Environmental Policy

- 1) Complying with environmental legal and other requirement which the company subscribes.
- 2) Preventing and controlling water and air pollution from our performances.
- 3) Promoting an energy saving policy and minimizing the resource consumption.
- 4) Minimizing the waste by implementing the waste management program.
- 5) Reviewing the environmental management system in accordance to the condition changes to ensure continual improvement of our environmental performance.
- 6) Communicate to employees at all relevant functions and level including all persons working for or on behalf of the company to understand the environmental policy and performance by providing appropriate training in awareness and competence including bulletin board postings.
- 7) Promoting our environmental policy and activities to the public, advertising in important areas by the distribution of a variety of printed material (board posting, brochures, etc.).

Aiming to reduction of environmental impactGF
Organization


Power Meter guage

Monitor energy
usage

Visual Control

**Main activity of CO2 emission reduction :**

- 1) Set team (GF Committee) to participate for energy saving activity.
- 2) Committee monthly meeting for discuss monthly result and brainstorm for improvement activity.
- 3) Site survey by committee to improvement in each area for energy saving.
- 4) Monitoring and follow up the progressive of each activity by BA chart.

| CO2 Reduction Activity Request Save Electricity | | | |
|---|---------|--|------------------|
| Area | Packing | Request: 9 Mar'11 | Finish: 9 Mar'11 |
| BEFORE | | AFTER | |
|  | |  | |
| Sketch Machine run 24 hr | | Sketch Machine turn off on Break time (1.5 hr : N & C shift) | |
| Electric consumption used = 5.24 kWh/24hr (24 days) kCO2 = 13.26 Tons (Yr) kWh/employee = 133,365 kWh | | Electric consumption used = 5.24 kWh/22.5 hr (24 days) kCO2 = 13.26 Tons (Yr) kWh/employee = 133,365 kWh | |
| Investment: 0 | B/Yr | P.J.C. Mr.Phrom / DC | |
| ROI: N/A | Yr. | Approve | Check Prepare |
| Cost Saving: 7,190 | B/Yr | | |
| CO2 Reduction: 1.52 | Ton/Yr | | |

Environmental Communication**Training for sub-contractor :**

ISO14001 basic training and emergency response to make sub-contractor to have the knowledge about how to save environment before working in the company in order to raise environmental awareness.

Promote "eco ideas" for external:Panasonic Marine
Conservation 26 Jun'10Tree planting at provinces
7 Aug'10Biodiversity Education for Children Project at the
Zoo
8 Sep'10**Emergency preparedness and response****Case of a training**

Besides fire evacuation and emergency response workshop. We have 1) basic fire fighting training course by third-party 2) training for emergency preparedness & response in case of chemical leakage 3) emergency plan for radiation leakage and 4) fire evacuation.



1 19 Dec'10



2 22 Dec'10



3 23 Dec'10

About our concept and training plan

Reference by environmental procedure (EP-47-01) and accidental & emergency manual of PASAP. We set plan of fire evacuation drill and emergency response 1 times/year (day & night shift). Target of participant are all of PASAP members (Included management level). For FY2011, prepared on 29 Nov'10.