

# Kyocera Group Site Information

## Kyocera Corporation Kagoshima Hayato Plant



### Profile

Location	999-3Uchi, Hayato-cho, Kirishima-shi, Kagoshima
Products manufactured	Thermal heads, LCDs, Inkjet head
Number of employees	583
Land area	26,407 m <sup>2</sup>
Total floor space	25,814 m <sup>2</sup>

### Environmental Performance

Items	Units	FY 2008		FY 2009	
		Amount	Specific consumption	Amount	Specific consumption
Electricity	kWh	40,399,185	2,408	36,853,166	2,507
Fuel (diesel fuel, LPG)	kℓ (crude-oil based)	945	0.06	869	0.06
CO <sub>2</sub>	t-CO <sub>2</sub>	14,693	0.88	15,847	1.08
Water	m <sup>3</sup>	449,414	26.79	402,648	27.39
Industrial waste emissions	kg	623,946	37.19	500,913	34.08
Effluent	m <sup>3</sup>	386,823	23.06	319,513	21.74

#### Comments

The gross amount of electricity consumption was reduced by changing the air-conditioning in clean room on holiday to conservation of energy saving driving, but it per net sales (the amount / million Yen) was got worse.

The gross amount of fuel consumption was reduced by changing boilers for air conditioners to highly effective one.

Water consumption was reduced by reusing the treated water of a water treatment facility to flushing water of toilets at the plant.

### Air related

Items	Facility	Legal standard	Internal criteria	Self-management standard	Performance for FY2009		
					Ave	Max	Measurement frequency
N/A							

### Air emission: total impact (units: tons)

Items	Total emission	
	FY 2008	FY 2009
N/A		

#### Comments

N/A

### Water quality

(units: mg/ℓ)

Items	Legal standard	Internal criteria	Self-management standard	Performance for FY2009		
				Ave	Max	Measurement frequency
Hydrogen ion concentration (pH)	5.8~8.6	6.2~8.2	6.2~8.2	7.0	7.2	Once/month
Biochemical oxygen demand (BOD)	120	10	10	3.4	6.7	Once/month
Chemical oxygen demand (COD)	120	10	10	4.5	7.5	Once/month
Suspended solid (SS)	200	5	5	1.9	3.4	Once/month
N-hexane extracts weight	30	1	1	<0.5	<0.5	Once/month
Phenols content	5	0.5	0.01	<0.01	<0.01	Once/year
Copper content	3	1	0.08	<0.01	<0.01	Once/every 2 months
Zinc content	2	0.5	0.2	0.02	0.03	Once/every 2 months
Dissolved iron content	10	5	1	0.09	0.17	Once/every 2 months
Dissolved manganese content	10	5	1	0.05	0.09	Once/every 2 months
Coliform group number (colonies/ mℓ)	3,000	350	200	N/D	N/D	Once/month
Nitrogen content	60	60	20	4.4	9.5	Once/month
Phosphorous content	8	8	7.2	1.6	3.3	Once/month

### Water pollution: total impact (units: tons)

Items	Total emission	
	FY 2008	FY 2009
Chemical oxygen demand (COD)	1.51	1.42
Biochemical oxygen demand (BOD)	1.39	1.08
Nitrogen	0.77	1.41
Phosphorous	0.46	0.51

#### Comments

Less than self-management standards, no incidents exceeded standards.

### Bad odors

No incidents exceeded standards.

### Noise and vibration

No incidents exceeded standards.

### PRTR substances

(units: tons)

Number	Substance	Handled amounts	Releases to			Transfers to		Other amounts		
			Air	Water	Soil	Waste	Sewage	Recycled	Consumption	Removed by process
16	2-amino ethanol	4.07	0.00	0.00	0.00	1.60	0.00	0.00	0.40	2.07
	Target chemical substances total	4.07	0.00	0.00	0.00	1.60	0.00	0.00	0.40	2.07

#### Comments

In a liquid crystal division, 1.1t of 2-aminoethanol as a stripping agent was reduced by changing it to an alternative substance, and 2.4t of it was reduced in the whole plant.