

# Environmental results report

**Company name** : Kyoden (Thailand) Co., Ltd.

**Factory name** : Thai Factory

**Address**: 209 Moo 8, Yutthasat 331 Rd., Bowin, Sriracha, Chonburi 20230 Thailand

34/4 Moo 8, Yutthasat 331 Rd., Bowin, Sriracha, Chonburi 20230 Thailand

**Report object period**: 2017/4/1~2018/3/31

**Report person in charge**: Ms. Punnee Kokong / ISO: Environment chief

**Report responsible**: Ms. Pasita Sukprasert / ISO/Document & Environment Ass't GM

No	Theme	Aim 2017	The results	Evaluation	Aim of 2018
1	Claim environmental neighbors must be zero	0	2 time	X	0
2	Total electric consumption per unit (SEC) less than 42.00 kWh / m <sup>2</sup> per month	42 kWh / m <sup>2</sup>	39.14 kWh / m <sup>2</sup>	O	42 kWh / m <sup>2</sup>
3	Water Resources Consumption less than 0.67 m <sup>3</sup> / m <sup>2</sup> per month	0.67 m <sup>3</sup> / m <sup>2</sup>	0.56 m <sup>3</sup> / m <sup>2</sup>	O	0.67 m <sup>3</sup> / m <sup>2</sup>
4	PCB Scrap not more than 2% per month.	2%	2.72%	X	2%

<Instructions in the report>

1 About a crude oil conversion factor and a CO2 emission coefficient, it varies according to an electric power company, the gas company of each factory.

2 About aquatic resources, the use source of a river of each factory is different.

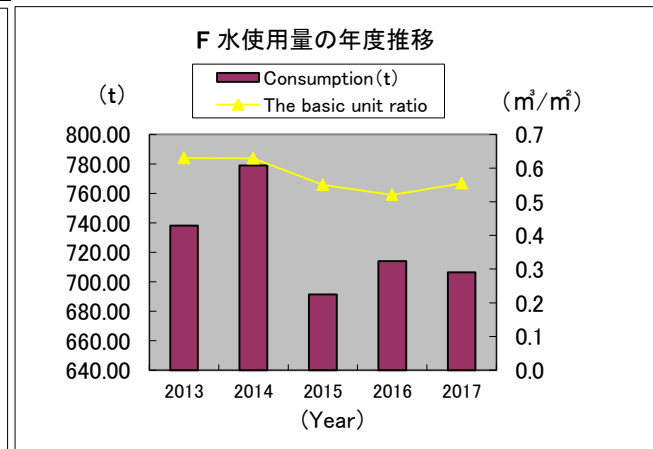
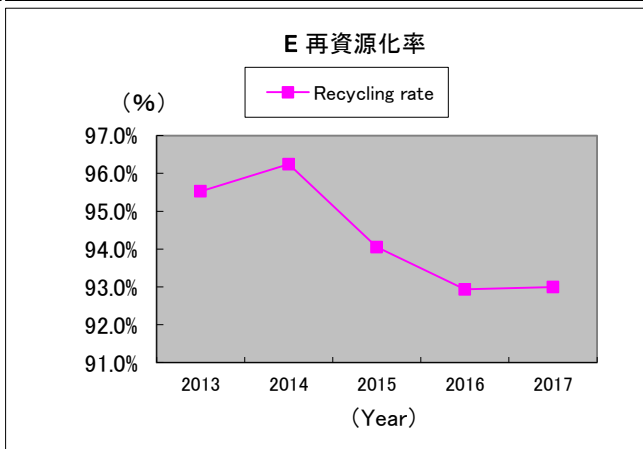
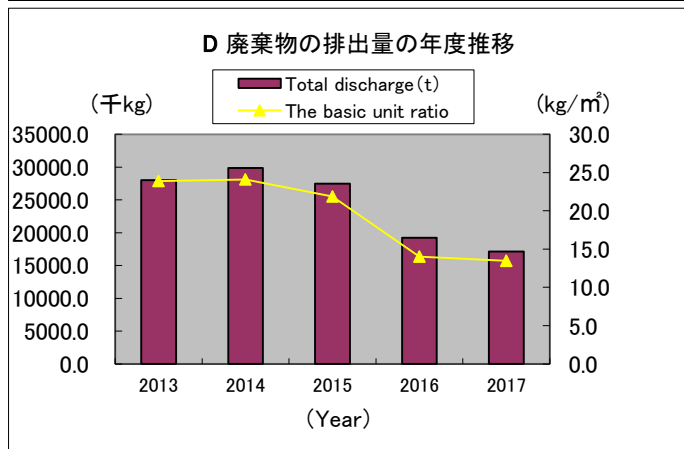
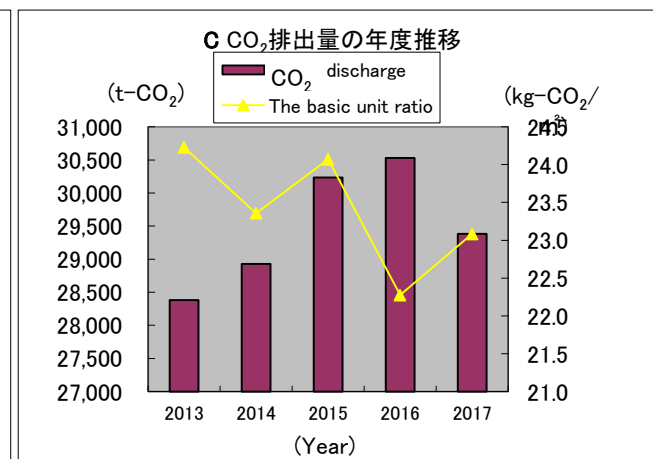
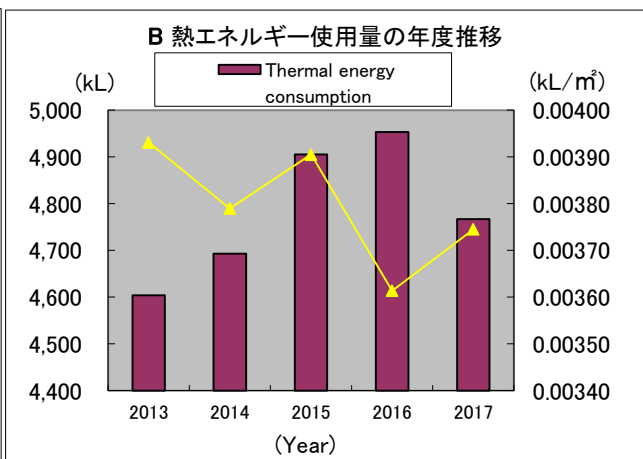
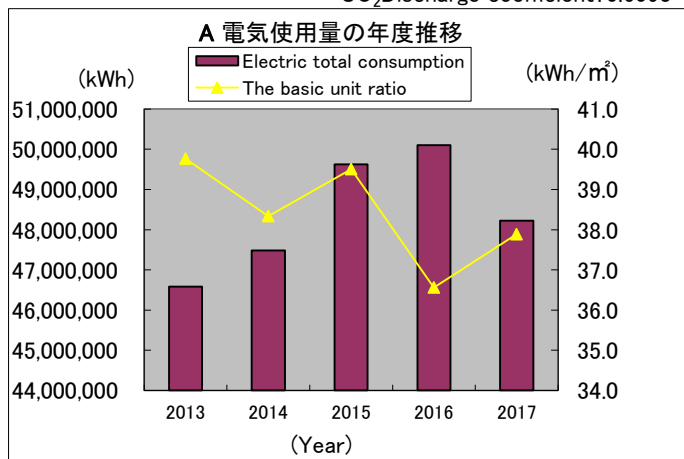
3 Because laws and regulations vary according to the local government of each factory location about water quality measurement, a measurement item and the standard values are different.

4 About the atmosphere measurement, I exclude the factory without facilities targeted for laws and regulations from a report.

# 環境負荷データ(load data)

工場名 (Factory name)	エネルギー(Energy)			廃棄物(Waste)		水資源 (Aquatic resources)	水質測定結果(Water quality measurement result)						大気の実績 (The atmospheric measurement results)			
	Electric total consumption	Thermal energy consumption	CO <sub>2</sub> discharge	Total discharge	Quantity of recycling	Water for industrial use	pH	BOD	COD	SS	n-ヘキサン(鉱油類)(n-hexane Mineral oil)	n-ヘキサン(動植物油類)(n-hexane Animals and plants oil)	大腸菌群数 (The number of the coliform bacteria)	特定施設名(Specific facilities name)		
	(kWh)	(kL)	(t-CO <sub>2</sub> )	(t)	(t)	Consumption(千㎡)	-	mg/L	mg/L	mg/L	mg/L	mg/L	個/cm <sup>3</sup>	Nox(ppm)	Sox(ppm)	ばいじん(mg/m <sup>3</sup> N)
Thai factory	48,224,400	4,767	29,383	17,113.18	15,913.79	706.442	7.73 (5.5-9)	48.58 (500)	95.83 (750)	12 (200)	N/A	N/A	N/A	44	N/A	0.223

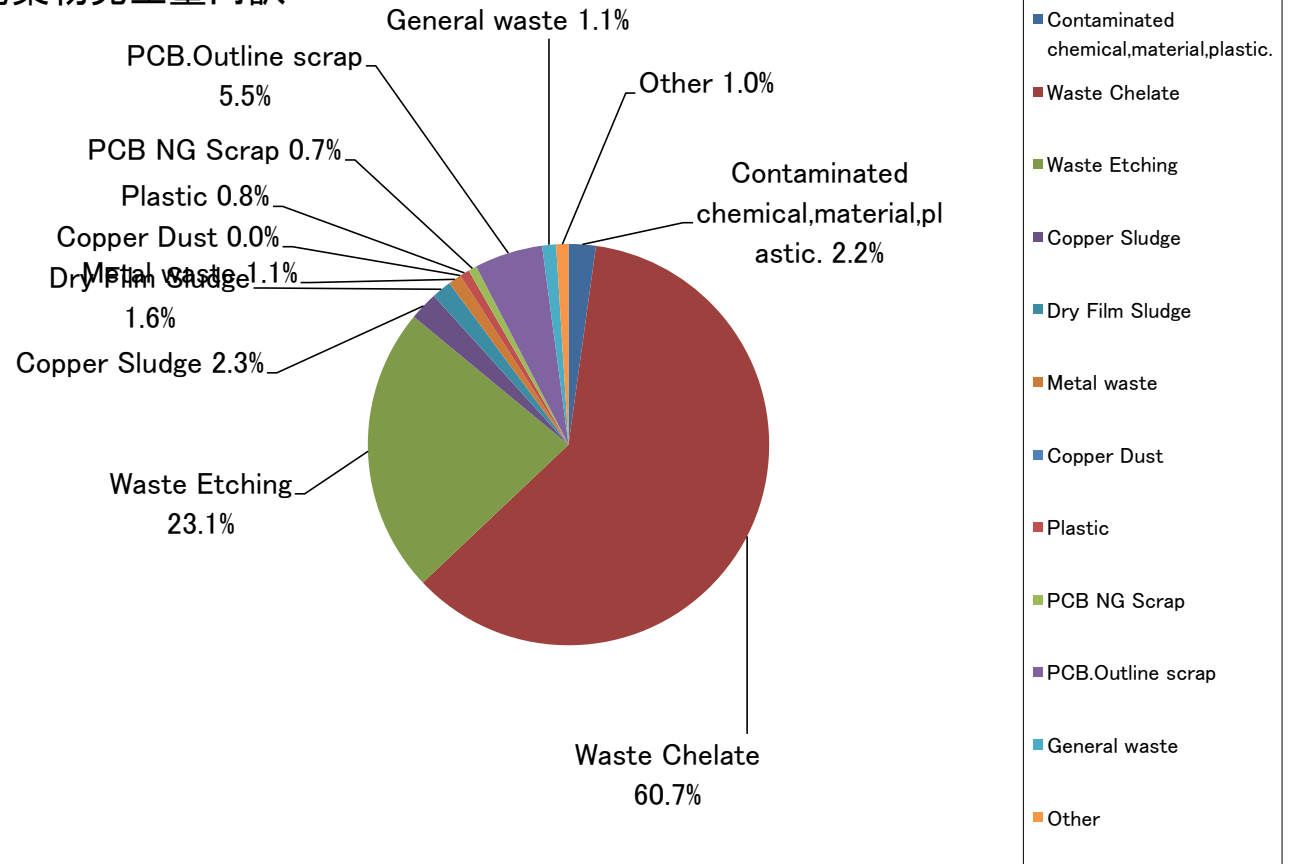
CO<sub>2</sub>Discharge coefficient:0.6093



廃棄物発生量内訳(Breakdown of the quantity of waste outbreak)

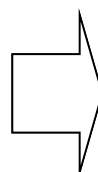
廃棄物名(Name of the waste)	発生量 Quantity of outbreak(t)	割合 (Ratio)
Contaminated chemical,material,plastic.	374.7200	2.2%
Waste Chelate	10,394.7450	60.7%
Waste Etching	3,946.5650	23.1%
Copper Sludge	393.0770	2.3%
Dry Film Sludge	272.7600	1.6%
Metal waste	181.7570	1.1%
Copper Dust	0.0000	0.0%
Plastic	132.0508	0.8%
PCB NG Scrap	115.0917	0.7%
PCB.Outline scrap	941.7342	5.5%
General waste	191.5580	1.1%
Other	169.1254	1.0%
合計	17,113.1841	100%

廃棄物発生量内訳



## マテリアルバランス(Material balance)

INPUT	
エネルギー(Energy)	
電気(Electricity)	48,224 MWh
重油(Heavy oil)	0 kL
灯油(Kerosene)	0 kL
軽油(Light oil)	0 kL
都市ガス(Gas)	374 km <sup>3</sup>
LPG(Liquefied natural gas)	0 km <sup>3</sup>
資源(Resources)	
地下水(Groundwater)	0 t
上水・工水(Water supply)	706 t
基板コア材(Board Core)	941,186 m <sup>2</sup>
段ボール(Corrugated cardboard)	149 t



OUTPUT	
大気(Atmosphere)	
CO <sub>2</sub>	29,383 t-CO <sub>2</sub>
水域(Area of the sea)	
河川(River)	0 t
下水(Sewage)	565 t
廃棄物(Waste)	
再資源化量(Quantity of recycling)	15,914 t
最終処分量(Quantity of last disposal)	1,199 t
製品(Product)	
プリント配線板(Printed wiring board)	848,302 m <sup>2</sup>

※出荷面積(Shipment area)