

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: 2018/4/1~2019/3/31

Report person in charge: Ms. Pasita Sukprasert / ISO/Document & Environment Ass't GM

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

No	Theme	Aim 2018	The results	Evaluation	Aim of 2019
1	Claim environmental neighbors must be zero	0	0	○	0
2	Total electric consumption per unit (SEC) less than 42.00 kWh / m ² per month	42 kWh / m ²	40.40 kWh / m ²	○	41.00 kWh / m ²
3	Water Resources Consumption less than 0.67 m ³ / m ² per month	0.67 m ³ / m ²	0.59 m ³ / m ²	○	0.60 m ³ / m ²
4	PCB Scrap not more than 2% per month.	2%	2.5%	×	2.35%

<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.

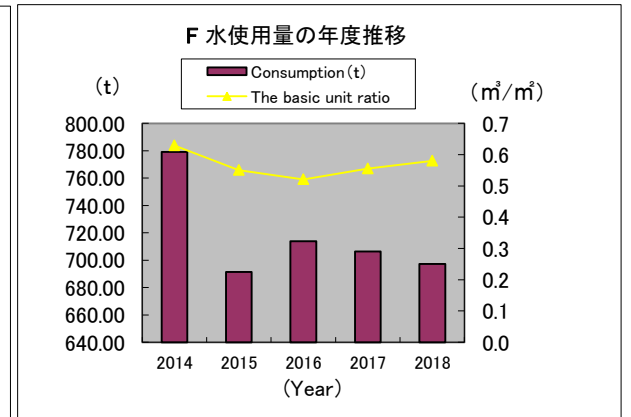
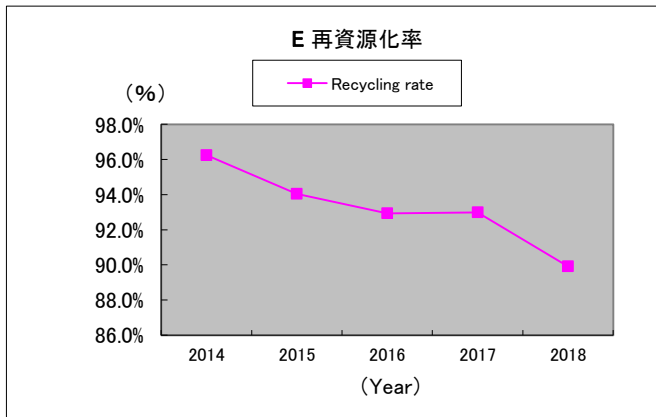
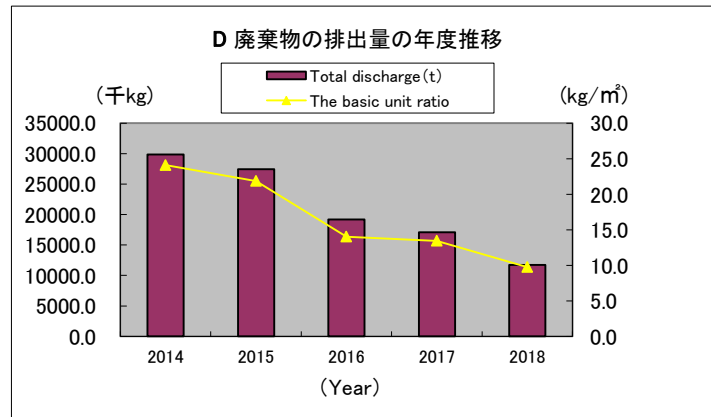
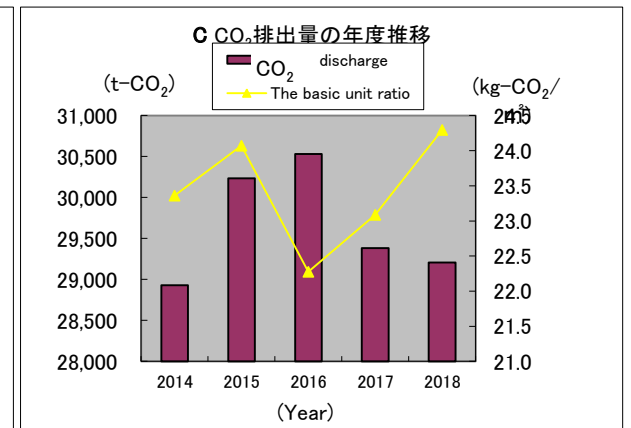
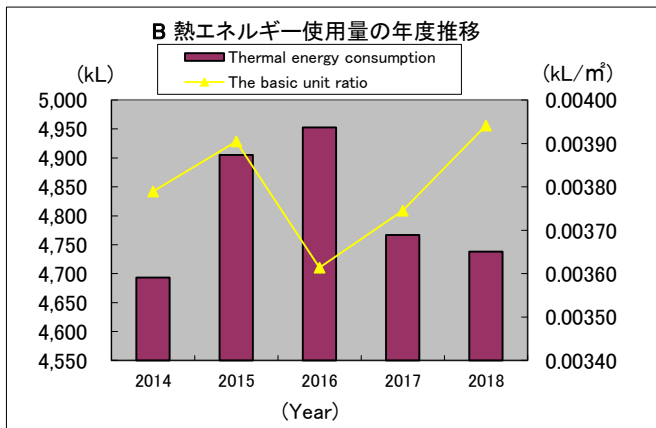
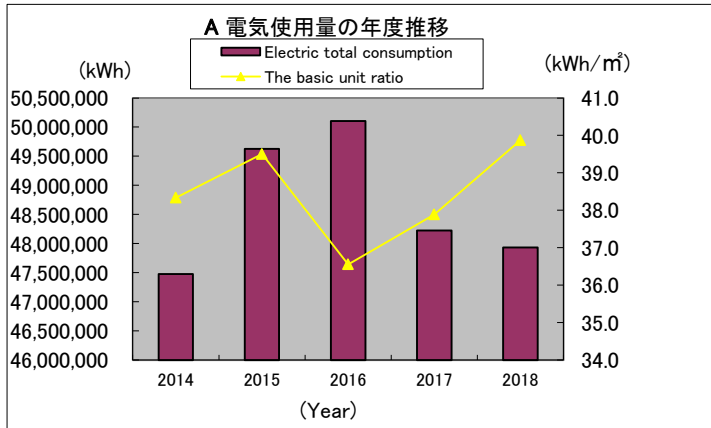
2 About aquatic resources, the use source of a river of each factory is different.

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)

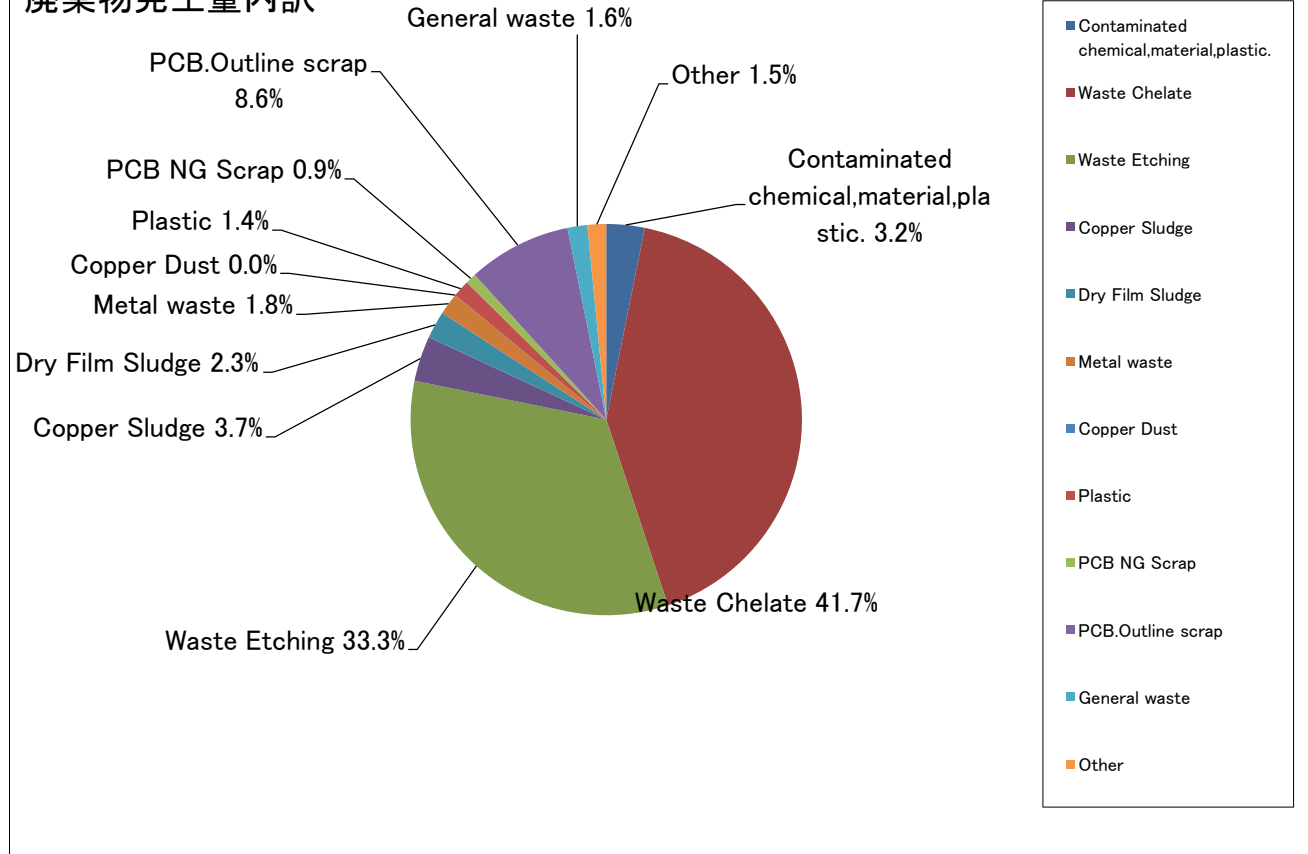
工場名 (Factory name)	エネルギー(Energy)			廃棄物(Waste)		水資源 (Aquatic resources)	水質測定結果(Water quality measurement result)						大気の実績 (The atmospheric measurement results)			
	Electric total consumption	Thermal energy consumption	CO ₂ discharge	Total discharge	Quantity of recycling	Water for industrial use	pH	BOD	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 ₂)	(t)	(t)	Consumption(千㎡)	-	mg/L	mg/L	mg/L	mg/L	mg/L	個/cm ³	Nox(ppm)	Sox(ppm)	ばいじん(mg/m ³)
Thai factory	47,935,800	4,738	29,207	11,727.00	10,544.00	697.25	7.8	45.83	151.33	9.5	N/A	N/A	N/A	34.8	N/A	0.184



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

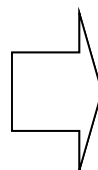
廃棄物名(Name of the waste)	発生量 Quantity of outbreak (t)	割合 (Ratio)
Contaminated chemical,material,plastic.	370.76	3.2%
Waste Chelate	4894.1	41.7%
Waste Etching	3904.09	33.3%
Copper Sludge	437.97	3.7%
Dry Film Sludge	265.67	2.3%
Metal waste	210.29	1.8%
Copper Dust	0	0.0%
Plastic	163.03	1.4%
PCB NG Scrap	105.46	0.9%
PCB.Outline scrap	1003	8.6%
General waste	192.34	1.6%
Other	180.97	1.5%
合計	11,726.6700	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)	47,936 MWh
重油(Heavy oil)	NA kL
灯油(Kerosene)	NA kL
軽油(Light oil)	NA kL
都市ガス(Gas)	317 km ³
LPG(Liquefied natural gas)	NA km ³
資源(Resources)	
地下水(Groundwater)	NA t
上水・工水(Water supply)	697 t
基板コア材(Board Core)	965,361 m ²
段ボール(Corrugated cardboard)	141 t



OUTPUT	
大気(Atmosphere)	
CO ₂	29,207 t-CO ₂
水域(Area of the sea)	
河川(River)	NA t
下水(Sewage)	557 t
廃棄物(Waste)	
再資源化量(Quantity of recycling)	10,544 t
最終処分量(Quantity of last disposal)	1,183 t
製品(Product)	
プリント配線板(Printed wiring board)	828,596 m ²

※出荷面積(Shipment area)