

Air Pollution Control

I. Policy and Commitment

Policy and Commitment	Responsible Unit	Resources Devoted	2022 Action Plan	2023 Action Plan
1. Achieve environmental sustainability goals	Environmental Safety Department	Introduce clean energy, modify the boiler equipment	Continue to use the clean fuels including natural gas in boilers	Continue to use the clean fuels including natural gas in boilers Huangshi Plant stopped using its 5-ton steam boiler and replaced it with a high-efficiency 15-ton low-nitrogen steam boiler to reduce nitrogen oxide emissions.
2. Improve the satisfaction index among residents living around the plant compound		Budget for the processing equipment	<p>Kunshan Plant</p> <p>1. The maintenance frequency for organic waste gas extraction ducts is increased from once per 2 months to once per month to ensure the efficiency of removing the organic waste gas.</p> <p>2. Replace the activated carbon box of 3#4#5# in Building C to ensure the efficiency of the organic waste gas activated carbon treatment process.</p> <p>Huangshi Plant</p> <p>1. Add 2 scrubbers to nitric acid emission to improve the efficiency of exhaust gas treatment.</p> <p>2. Add two scrubbers for the hydrochloric acid emission to increase the effectiveness in treating the waste gases.</p> <p>3. Add activated carbon absorbers to the extracted air in the pressing workshop to reduce the emission of organic substances.</p> <p>4. Improve the two activated carbon absorbers for post-baking. Since the activated carbon absorbers for post-baking are hairy and the charcoal mesh is clogged with rust, which affects the extraction effect. The activated carbon absorbers have been changed to stainless steel to prevent the mesh from being clogged with rust.</p>	<p>Kunshan Factory</p> <p>1. The organic waste gas exhaust duct must be maintained once a month and the removal efficiency must be guaranteed;</p> <p>2. Restructure the waste gas treatment system in the liquid medicine area to prevent the odor of the liquid medicine from leaking out.</p> <p>Huangshi Factory</p> <p>1. The tin furnace exhaust in Area C of P1 Factory is introduced into the activated carbon treatment system to avoid odor emissions.</p> <p>2. Improve the filter screen of the activated carbon tower to avoid clogging.</p>

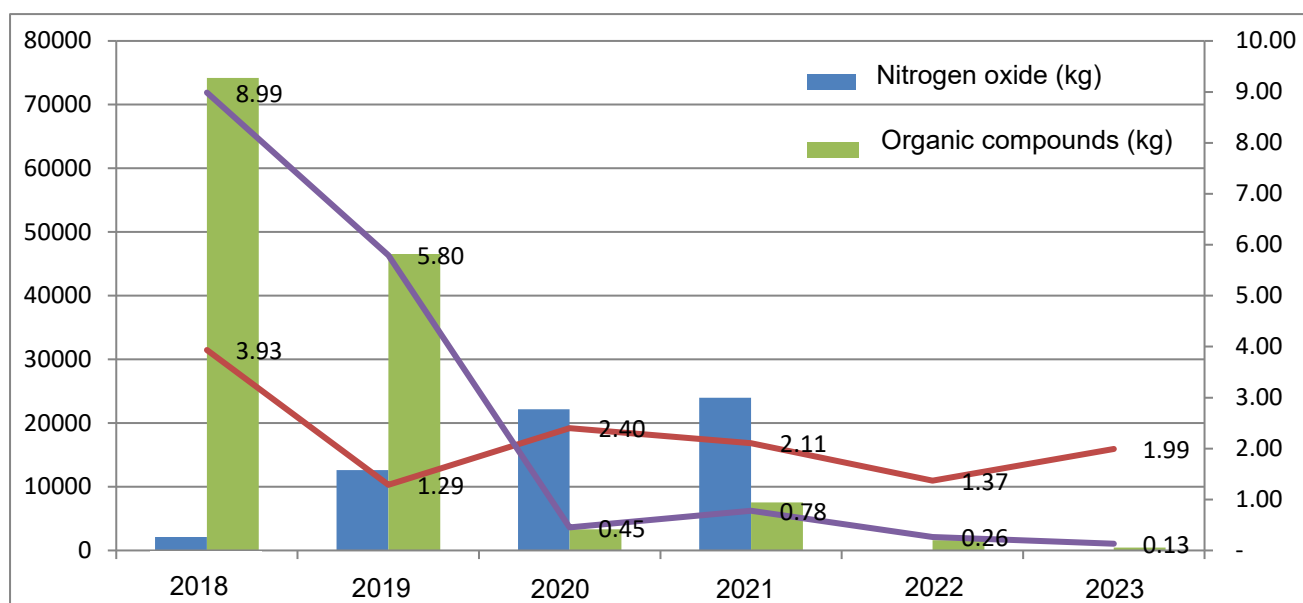
3. Fulfill 100% in waste gas being monitored and discharged		Budget for the modification of processing equipment	3. Modification of waste gas towers at the Huangshi Plant	Continue to monitor waste gas emissions and meet the standard in 100%
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II. Goal and Accomplishment

Goals	Goal in 2025 (Medium-term)	Goal in 2027 (Long-term)	Accomplishments in 2021	Accomplishments in 2022	Goal in 2023	Accomplishments in 2023
Number of complaints filed by surrounding residents in the Kunshan Plant	0	0	0	0	0	2
Number of complaints filed by surrounding residents in the Huangshi Plant	0	0	0	0	0	0
Number of penalties imposed due to non-conforming air-polluting emissions in the Kunshan Plant	0	0	0	0	0	0
Number of penalties imposed due to non-conforming air-polluting emissions in the Huangshi Plant	0	0	0	0	0	0
Consistency rate of operating parameters of fixed air pollutants at the Kunshan Plant	100%	100%	100%	100%	100%	100%
Consistency rate of operating parameters of fixed air pollutants at the Huangshi Plant	100%	100%	100%	100%	100%	100%

III. Air pollutant emissions and emission intensity trends of the Kunshan Plant

	2018	2019	2020	2021	2022	2023
Nitrogen oxide (kg)	32,474.36	10,346.24	17,782.31	20,281.76	8,524.42	6,574.02
Revenue (million)	8,255.31	8,032.22	7,400.06	9,622.04	6,214.59	3,295.48
Nitrogen oxide (kg/million TWD in revenue)	3.93	1.29	2.40	2.11	1.37	1.99
Volatile organic compounds (kg)	74,187.64	46,556.49	3,341.50	7,520.21	1,632.64	435.18
Revenue (million)	8,255.31	8,032.22	7,400.06	9,622.04	6,214.59	3,295.48
Volatile organic compounds (kg) (kg/million TWD in revenue)	8.99	5.80	0.45	0.78	0.26	0.13



IV. Air pollutant emissions and emission intensity trends of the Huangshi Plant:

	2019	2020	2021	2022	2023
Nitrogen oxide (NOx) (kg)	12,601.66	22,158.48	23,999.26	23,602.90	11,499
Revenue (million)	3,780.35	4,235.11	6,139.45	9,059.91	12,353.80
Nitrogen oxide (kg/million TWD in revenue)	3.33	5.23	3.91	2.61	0.93
Sulphur oxide (SOx) (kg)	1,144.16	3,452.27	653.91	434.81	891
Revenue (million)	3,780.35	4,235.11	6,139.45	9,059.91	12,353.80
Sulphur oxide (kg/million TWD in revenue)	0.30	0.82	0.11	0.05	0.07
Volatile organic compounds (VOCs) (kg)	1,869.76	4,409.44	518.66	332.13	2,145
Revenue (million)	3,780.35	4,235.11	6,139.45	9,059.91	12,353.80
Volatile organic compounds (kg/million TWD in revenue)	0.49	1.04	0.08	0.04	0.17

Pollutant Emission Intensity Trend of the Huangshi Plant

