

**Case Study**

**Livestock Husbandry Wastewater Treatment**

**(Muyuan Foods Co.,ltd. Project)**

The project mainly deals with swine urine and swine feces produced in the reproduction process of swine factory.

Sewage characteristics: the swine manure sewage has high concentration of organic matter which is rich in nitrogen, phosphorus and pathogens and very prone to corruption with a moisture content of more than 98%, and it as a kind of high concentration organic wastewater contains a large amount of suspended solids such as swine manure. It is the type of easy biodegradation based on the BOD5 / COD ratio greater than 0.3 which can reach about 0.6, and the wastewater has good biodegradability.



Overview of the Hog Farm



Biochemical Unit



Membrane Module Installation



Membrane Permeate Quality

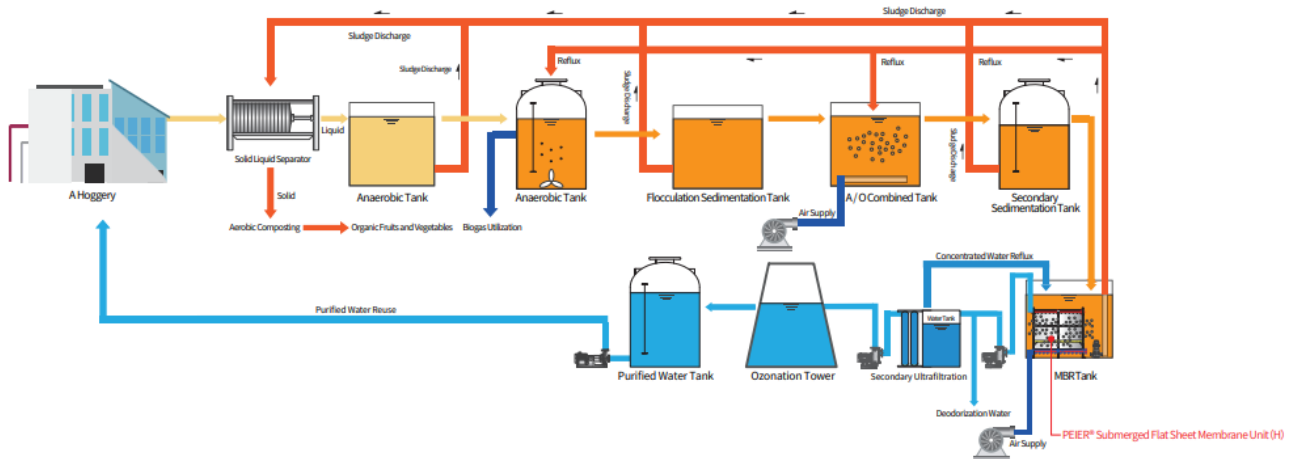
**1. Outline of the Facility**

<b>Location</b>	Leizhou City, Guangdong Province
<b>Type of Wastewater</b>	Livestock Wastewater( Swine)
<b>Flow</b>	200m <sup>3</sup> /d
<b>Commissioned</b>	Since 2021(Peier MBR)

## 2. MBR Process Flow Sheet

### MBR Flow Sheet

Process Flow Chart of Livestock Husbandry Wastewater Treatment  
(Muyuan Foods Co.,ltd. Project)



## 3. Design Parameter and Actual Data

Type	Parameter	Influent	Design	Actual	Capacity m <sup>3</sup> /D
Livestock Wastewater	COD <sub>Cr</sub> (mg/L)	8000	200	185	≤200
	BOD <sub>5</sub> (mg/L)	3200	100	57.8	
	Total Phosphorus (mg/L)	260	/	8.03	
	Ammonia Nitrogen (mg/L)	1300	/	1.75	
	SS	/	100	21.0	
	pH	7.6	5.5-8.5	7.1	
	Chroma	/	/	200	
	Turbidity (NTU)	/	≤1	0.35	

"Design" values of effluent are regulatory limits. "Actual" values are average values.

Jiangsu Peier Membrane Corp.,ltd,

MBR Flat sheet membrane manufacturer since 2007

Add: East Industry Zone, Gaocheng Town, Yixing City, 214214 Jiangsu Province, China,

Tel:+86 510 8783 8775 Fax:+86 510 87838773, Web:www.chinapeier.com/ www. peier-membrane.com/