

**WEBINAR TALK ON**

# Evaporation of Wastewater and Zero Liquid Discharge System in Palm Oil, Food and Beverage Industry

BEM Approved CPD : 2.0 Ref no: IEM21/HQ/031/T (w)

**26 MARCH 2021 (FRIDAY)**

**3PM - 5PM**

**SPEAKER : MR ONG TOON WEI**

Registration Fee (effective from 1st August 2020)

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# Synopsis

Most foods industry processes generate waste streams with high pollutant that need to be treated or disposed of before discharging into the water course. In Malaysia, it has become critical issues that some raw surface water becomes contaminated by the discharge of wastewater directly from factories to drains and into rivers without adequate treatment. This has created the hazard to public health and environment that will cause big losses to any business.

A Zero Liquid Discharge (ZLD) system is a combination of technologies that work together to minimize/ eliminate the wastewater as much as technically and economically practical, often resulting in a concentrated solid product and high-quality clean water for re-use or environmental discharge. Integrating a ZLD system into your process increases resiliency by reducing both cost and risk. ZLD works to secure control over your water source and waste disposal reducing the influence of factors outside of your control. In many applications, ZLD can enable the creation of value products or energy from waste, significantly improving project economics. Overall ZLD, can help to align your profit and sustainability goals, making your business more robust and less vulnerable to outside change.

Here's where a ZLD system comes in. The wastewater is pumped into this system, where it goes through a process which can involve heating, separation, decanting and evaporation, depending on the system used. From this there will be two end products - treated water which can be reused, and solids which can be sold, used in the industrial process, or disposed of, depending on the nature of the solid and the quality. Why is this important? It's essential for businesses to try and limit waste as much as possible, both for the sake of the environment and for the sake of costs and profit margins. It's also a requirement, depending on where you are in the world. Many governments have introduced strict regulations around discharge, and there are water reuse requirements in certain regions too. Eliminating waste and becoming more sustainable is hugely important, and ZLD technology can help with this, whilst also making businesses more profitable in the long-run.

**Key benefits** There are three key benefits to implementing a ZLD system into your industrial process:

- **Minimize your waste.** An efficient ZLD system will minimize, or even eliminate wastewater completely. This can have a major impact on your sustainability.
- **Re-use water.** The water treated in the ZLD system can often be reused in the industrial process that required fresh water in the first place. As you don't need as much water, your costs decrease as well as your environmental impact.
- **Create value.** The solids produce can vary, but some may be salt that can be resold, or chemicals that can be put to use in the initial process. This means even less actual waste is produced, as even the solid substances can be a benefit to your business.

If you would like to learn more about how the Evaporation technology and Zero Liquid Discharge technology can help the industry to achieve sustainability, please enroll to webinar talk. More detail explanation will be given.

# Speaker's Profile

- Toon Wei, Ong is the Sales Director of Alfa Laval Malaysia and Singapore, responsible for the sales department of Industrial Food and Water Division.
- Holding a First-Class Degree in Chemical Engineering from University Technology Malaysia (1998) and a Masters in MBA in University of Strathclyde (UK) (2014).
- Toon Wei gained his first expertise in process control and instrumentation in a Multinational company for 8 years. He then joined Alfa Laval and ventured into the palm oil industry and has now gathered over 13 years of vast experience under his belt. Being focus in Palm Oil Mill as sales for over 20 years, he has good knowledge in palm oil and food technologies and processes.
- Having a balance of both technical and business knowhow, he is actively developing solution to cater for the industry's everchanging needs especially on Palm Oil Milling and Food Processes.
- Working actively in R&D for the past 9 years on seeking wastewater solution to Palm Oil Industries and successfully implement a pilot trial and commercial running plant of palm oil mill effluent evaporation.



**ZERO LIQUID DISCHARGE**