

Wastewater Management

Water is very vital for all kinds of living organisms and is a source of origin for many species of aquatic animals and plants. Water is also useful in agriculture, households and industry. The petroleum business of Bangchak needs water in the production process too. With such facts, the company believes it is important to minimize water pollution and it should take responsibility to reduce most impacts on natural sources

The company has managed to establish a highly efficient water treatment system. This has resulted to a higher-than-standard quality of water based on the standards of the Department of Manufacturing. There was also a reduction in the wastewater volume caused by recycling system. The water treatment process consists of three parts, namely the physicochemical treatment process, biological treatment process and final treatment process. The main function of the physicochemical treatment system is to reduce the contamination of oil and heavy metals while the biological treatment system is to reduce dissolved organic in order to ensure the proper quality of water before being taken into recycle system.

The company places great importance on water pollution management and determined to continuously develop the water treatment system in order to effectively manage the wastewater quality more effectively as designed and to increase stability of the system. In the year 2019, the company has implemented the wastewater treating unit improvement with a budget of 25 million baht. The project consists of the following:

- ✔ Installation of a waste water feed rate control system at the physical chemical treatment system. This improvement helps achieve better consistency of the water flow
- ✔ Installation of additional sludge preparation systems at the DAF and TPI units to ensure constant concentration of polymer chemicals
- ✔ Installation automatic wastewater pH control systems and nutrient replenishment systems at the OFP unit to ensure continuous and accurate pH control

The company has also implemented the WWTU Improvement Project (Phase II) to revise the manuals for operators and provide training for monitoring systems for unusual incidents.

In addition, the company sends water samples for regular analysis to the Department of Industrial Works and internationally certified ISO/IEC 17025. There are also dedicated personnel like the pollution controller to closely supervise the treatment system. There are also dedicated operators in the production and equipment maintenance department. With all these measures, the public can be confident about the quality of waste water to the environment.

Furthermore, the company has also installed a special tool or equipment (COD Online) that shows real time results to the Manufacturing Department and the surrounding communities. In 2019, the company discharged 882,898 m³ of water to the environment

2021 Targets



The water pollution treatment system team operators have enough knowledge and skills to systematically manage the treatment unit.

- Actual operations have no misalignments to the ISO system based on the inspection done on work and operating procedures.
- All workers must be trained on the "Operator Program for Water Pollution Treatment Systems"
- 90% passing score in related courses. Test scores for comprehension after training higher than 90% of any relevant courses



Full automation of the water treatment system.

Strategy



Knowledge building : Promote knowledge for agencies related to wastewater treatment systems



Building Method : Prepare concrete practices for operators of water pollution treatment systems



Equipment building : Build and improve equipment to be able to automate work efficiently.