Project of Recycling Wastewater from Viet Nam's Textile Dyeing Factories

Ministry of the Environment
Government of Japan

Implementation systems

JTOP Co., Ltd

Background

- Vietnam's textile and apparel industry is the country's top export product. In 2017, garments and textile products accounted for 15 percent (US$31.2 billion) of its total exports.
- While textile factories in Viet Nam use surface water as their main source of water for their operations, Viet Nam is located at the most downstream of the two major rivers, the Mekong and the Hong. More than 60% of surface water aforementioned, originates from other neighboring countries located up-stream. In Viet Nam, excessive extraction of well water has caused land subsidence and contaminated surface water mixed up with well water, leading to groundwater contamination.
- Textile dyeing factories face difficulty meeting the standards for discharging water into the river due to inadequate understanding of the current regulations, the high cost of investing in and maintaining wastewater treatment plants and inadequate technology used during the dyeing process itself.
- In addition, since Viet Nam's textile and apparel industry is heavily dependent on water and energy, the Viet Nam Textile and Apparel Association and the World Wide Fund for Nature have proposed the recycling of wastewater as one of the solutions to address the lingering issue of sustainable water management within the industry.

Project outline

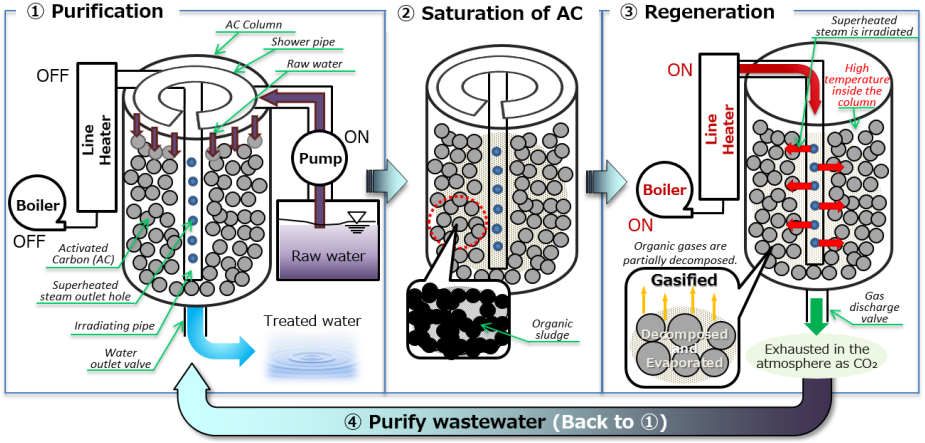
- To test our automatic regeneration activated carbon filtration system, installed to an existing treatment facility, to treat wastewater to appreciable and reusable quality and standards.
- In the study phase, the ultra-compact testing machine will be used for the local adaptability tests of the system. It is to consider further demonstration project plan and business model with the results.

Location

Socialist Republic of Viet Nam
Ho Chi Minh City and surrounding areas

Outline of technology

Instead of using conventional activated carbon treatment, which is highly effective for advanced wastewater treatment but expensive due to its disposable nature, we introduce the "automatic regeneration activated carbon filtration system". This system applies our own patented technology enabling to recycle activated carbon on-site. This technology allows factories to reduce the running cost of wastewater treatment, and to reuse treated wastewater in the facility.



Expected results and business prospects

- Reduction of the environmental impact of factory effluent
- Improving productivity and contribute to the development of the industry
- Developing the local industry based on local manufacturing
- Expanding our business to other industries such as the chemical industry, etc.