



Implementation systems

Japan side

- Global Environment Centre Foundation(GEC)
- DAICEN MEMBRANE-SYSTEMS Ltd.
- Osaka Institute of Technology

Vietnam side

- Institute of Environmental Technology, Vietnam Academy of Science and Technology (VAST-IET)
- Vietnam-Japan Institute of Advance Technology (VJIAT), National University of Civil Engineering

Background

- Treatment technology for oil-containing wastewater from metal processing/metal treatment factories that produce parts for automobiles and motorcycles, a major industry in Vietnam, has not been sufficiently established, even though the national government tightens regulations and guidance on water quality/solid waste management. Therefore, it is difficult for those factories to comply with effluent standards such as COD, causing adverse effect on rivers and other water bodies.
- To solve these issues, the feasibility on establishing a wastewater treatment system that separates and treats oil-containing wastewater from metal processing/metal treatment factories and refines the treated water for reuse will be studied and commercialization will be promoted.

Project outline

- The current status, issues and potential demand of wastewater treatment in metal processing/metal treatment factories will be identified, and the acceptability and applicability of the technology will be studied through demonstrating the core technology (tubular membrane) of the proposed technology to related organizations. Based on the results of this study, a business plan for developing sales channels on wastewater treatment will be prepared.

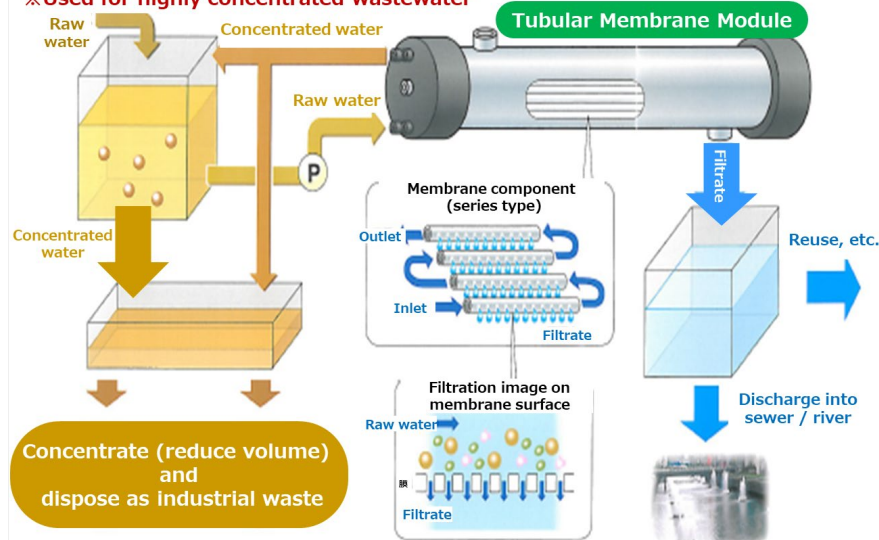
Location

Northern Part, Vietnam

Outline of technology

- A tubular membrane module is used to separate oil-containing wastewater from cutting process in metal processing factory into highly concentrated wastewater and reusable water.
- In order to facilitate maintenance of the membrane, its tube has a diameter of 10 mm or more, and sponge balls are used to effectively remove internal deposits in addition to chemical cleaning.

※Used for highly concentrated wastewater



Expected results and business prospects

- In case that highly concentrated oil-containing wastewater from metal processing factories is collected by waste disposal companies, this technology can efficiently separate wastewater with membranes, greatly reducing the volume of wastewater and disposal costs. The treated water produced by separating oil and water can be reused in the factories.
- A business model that can reduce introduction costs by assembling the equipment locally will be established through collaborating with local engineering companies.