THE FIRST ADOPTION OF THE PTF PROCESS IN VIETNAM

International Affairs Department

1. Introduction

PTF (Pre-treated Trickling Filter) Process developed by Metawater Co., Ltd is the first example of JS technology verification for global use. The Hoi An City of Vietnam decided to adopt the technology for its municipal WWTP. The technology adoption is a part of "The Project for Water Quality Improvement for Japanese Bridge Area in Hoi An City," a grant aid project of official development assistance (ODA) by the Japanese government. Hoi An City made a construction contract agreement with the joint venture of Metawater Co., Ltd., and Tsukishima Kikai Co., Ltd.

This newsletter will report "Technology Verification for Global Use" that JS carries out and "Upstream-downstream Support for Global Project" based on the technology verification.

2. Technology verification of the PTF Process

JS carries out technology verification as a third party with rich experience and solid technical power. In 2012, a new verification program started for technologies used in other countries. The new program aims to enhance the reliability of technologies developed by the private sector and improve its product quality. As mentioned above, the PTF Process of Metawater is the first example of the new verification program.

PTF Process is a wastewater treatment technology that Metawater cultivated for developing countries, including Vietnam. The process makes "filtration" with artificial filter media instead of a settling tank and adopts a "trickling filter" for a bioreactor (Figure 1.) JS verified the treatment performance, energy saving, space-saving, and maintainability of the PTF Process based on the demonstration in Da Nang city.

Verified technology obtains a certificate expected to enhance the reliability of the technology.

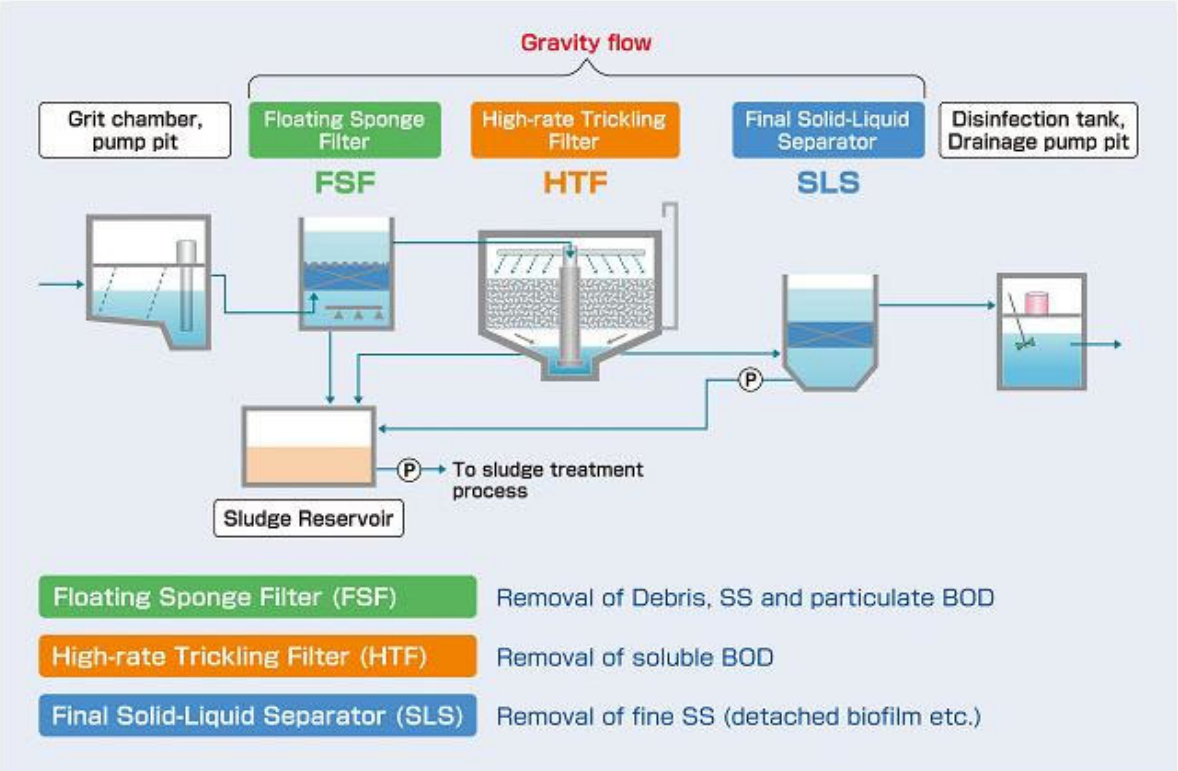

Figure1. Flow diagram of PTF Process

3. Project Formation

Certified PTF Process has been promoted mainly in Vietnam. In 2015, stakeholders, including the Ministry of Construction and promising municipalities, were invited from Vietnam to Japan for a training program that JS cooperated with.

Photo1: Japanese Bridge in Hoi An City

The construction of the first WWTP adopting the PTF process will start in Hoi An City, Quảng Nam Province, Vietnam. Hoi An City has Hoi An Ancient Town, which is on the list of UNESCO World Heritage as an exceptionally well-preserved example of a South-East Asian trading port dating from the 15th to the 19th century. The new WWTP is expected to contribute to preserving the ancient town's water environment and improving the water quality of the famous "Japanese Bridge Area" (Photo 1.)

4. Upstream-downstream Support for Global Project

As Figure 2 shows, JS implements "Upstream-downstream Support for Global Project." "Upstream" means "research and development (R&D.)" here.

In this support program, JS practically does:

- Verify technologies for global use.
- Support "Project Formation" to promote JS verified or developed technologies in the joint research program.
- Join the "Technological Examination Committee" that JICA hosts to contribute to the quality improvement of technologies.
- Dispatch instructors to JICA's training program to help cultivate engineers from developing countries.

Additional participation in the phases of construction and O&M are still expected.

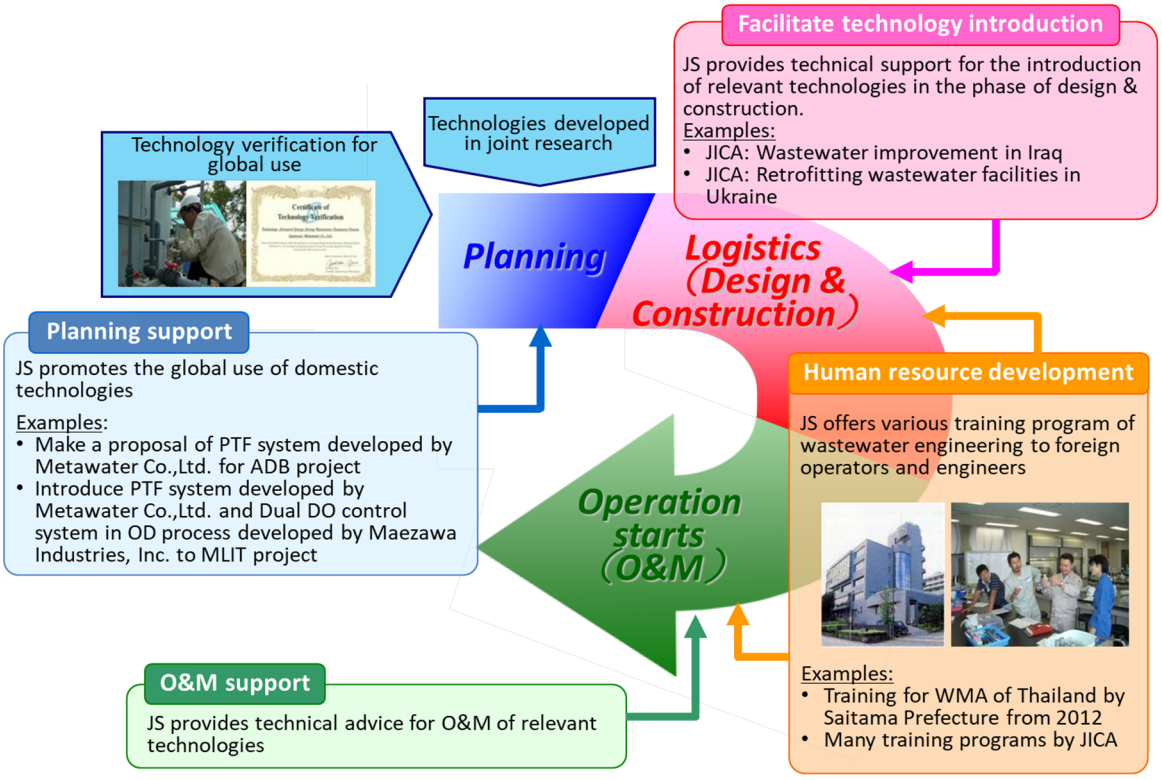

Figure 2: System flowchart of Upstream-downstream Support for Global Project

5. Conclusion

The adoption of the PTF process by Hoi An City is one step forward for "Upstream - downstream Support for Global Project."
JS will continue to support the "Global water business.