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JS Registers Two New Technologies on its New Tech Implementation Program

Japan Sewage Works Agency (JS) has been running the JS New Tech Implementation Program[*1] since 2011. The program aims to encourage the development of new technologies meeting various needs of municipal wastewater business and facilitate the new technology adoption for our entrusted projects[*2].
JS newly registers the following two technologies on its New Tech Implementation Program.

*1: Note that JS New Tech Implementation Program verifies registered technologies for their applicability **only** at JS' entrusted projects.

*2: The validity of the JS New Tech Implementation Program is five years from the date of registration. If the registration is modified, validity starts on the date of the modification. Validity can be extended until a maximum of ten years if developers apply.

Sewage sludge fuelization technology using electric heating screw type carbonization furnace

Developers: JS, Kobelco Eco-Solutions Co., Ltd.
Summary and Features: Sewage sludge fuelization is a technology converting sewage sludge into fuel. The system heats dewatered sludge after drying in a reduced state using electricity as the heat source. The compact carbonization furnace used in the system adopts an electric heating screw. No hot air generating furnace is needed, and this simple flow reduces heat release.
The compact design and simple flow allow the system to use less energy than the conventional external heat kiln carbonization furnaces.

Energy saving MBR using thin PVDF hollow fiber membrane

Developers: JS, Mitsubishi Chemical Aqua Solutions Co., Ltd., Swing Engineering Corporation, Mitsubishi Kakoki Kaisha, Ltd.

Summary and Features: This MBR system adopts PVDF* hollow fiber membranes with higher integration than the conventional membranes, aeration with low air volume for membrane washing, and an auxiliary fine bubble aeration. The higher flux of membranes, the improvement of the air cleaning efficiency and the oxygen dissolution efficiency of the auxiliary aeration blower will save energy and reduce costs.

The peak flux operation enables stable treatment performance even when the inflow water volume temporarily increases due to time fluctuation or rainfall.

*PVDF : Polyvinylidene Difluoride