

New Automatic Combustion Control System Platform - Initiate Demonstration Test of European Technology Aiming Adoption for Waste Incinerator in Japan

~ Technological Integration of Kanadevia and Kanadevia Inova ~

Kanadevia Corporation has launched a demonstration test of a new automated combustion control system platform "Autaro" for stoker-type waste incinerators. The system has been implemented at the "Eco-Eight Yatsushiro (Yatsushiro City Environmental Center) in Yatsushiro City, Kumamoto Prefecture, which has a waste processing capacity of 134 tons per day (67 tons per day x 2 lines)."

Autaro is a system that our group company, Kanadevia Inova AG (Switzerland, hereinafter "Inova"), is implementing mainly in Europe. Through the technological integration of our Company and Inova, we are applying the latest European automatic combustion control system platform to stoker-type incinerators in Japan. Adjustments and evaluations will be conducted at domestic facilities from October 2024 to the end of February 2026.

Our Company has developed an Automatic Combustion Control System (ACC) ^{※1} tailored to the quality of waste and the scale of incinerators in Japan. We have adopted the Component ACC, that consolidates technologies cultivated through past operational experiences, as a standardized specification, and use it as an automatic combustion control system for incinerators.

On the other hand, Inova has been using its own automatic combustion control system for many years. However, Inova has advanced this system by adding a features such as the ability to estimate the low calorific value (calories) of waste in real time. Furthermore, in recent years, Inova has developed Autaro, packages Advanced sensors,^{※2} and are promoting social implementation in a society. Inova has already introduced Autaro to three plants and plans to introduce it as a standard in future projects.

While both our Company and Inova have adopted their own automatic combustion control systems, if we obtain favorable results from this demonstration test, our Company plans to actively incorporate Autaro into the design of future Waste to Energy plants we will be working on in the future.

The main features of Autaro are as follows.

1. There are few setting parameters that need to be checked during operation, significantly reducing the burden on the operator. As a result, even inexperienced operators can perform operation stable.
2. It is possible to easily share the control models that our Company and Inova have developed independently.
3. Due to the use of a highly versatile interface, it can be easily customized to suit the requirements of each facility.

The calorific value of waste can vary due to weather and season, which can sometimes exceed the range of system control. Therefore, manual intervention by skilled operators was therefore essential for stable combustion operation. However, with the introduction of Autaro, even operators with limited experience enables stable combustion, which reduces the burden on operators and contributes to reducing in manpower.

In addition, the optimal control model varies from each plant, depending on factors such as the quality of waste, the size of the incinerator, and the equipment configuration. By standardizing Autaro, our Company and Inova can easily combine the automatic combustion control models that both had independently, facilitating more flexible and efficient operations.

Since Inova joined our group at the end of 2010, we have been expanding our business globally in collaboration. In recent years, the two companies have accelerated technological integration, including initiatives to standardize incinerator combustion equipment. With the standardization of Autaro, we can further advance such integration between the two companies. On October 1, 2024, Kanadevia and Inova changed our trade name. Kanadevia Group, as the top runner in the field of Waste to Energy, we will continue to develop our business as a united entity.

※1 ACC: Automatic Combustion Control System

A system that automatically adjusts the amount of waste and air supplied to the incinerator in response to changes in combustion conditions.

※2 Advanced sensors

Devices installed for estimating high-precision real-time calorific waste using multiple sensors such as dust pressure measurement devices, 3D laser measurement devices, and CO₂ & H₂O measurement devices.

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