

Reduce construction and maintenance costs by centralized sludge treatment

Effectively utilize recycled energy and resources from sludge treatment

Monitor the facility 24 hours to ensure that operations are safe

Set up environmentally friendly facilities

Sewage Sludge is resourceful! Use it effectively!



Electricity

Fuel

Improved Soil

Construction Material

Alternative Fuel to Fossil Fuel

Effective Use of Digestion Gas

In the digestion tank, microorganisms decompose the organic matters in sewage sludge. Digestion gas generated in this process is effectively utilized.

For Gas Engines

Gas engines generate most of the electricity consumed at sludge treatment plants. At the same time, the heat generated by these engines warm up the digestion tank.

As Fuel Source

Digestion gas is used as fuel to burn sludge in the incinerator and also as fuel for refuse incineration plant of the Resources and Waste Recycling Bureau.

Effective Use of Ash

Incinerated Ash is utilized 100%.

Improved Soil (Hokubu Sludge Treatment Plant)

Incinerator ash is improved by mixing into the soil generated by construction, and then the ash is used for filling material at construction sites.

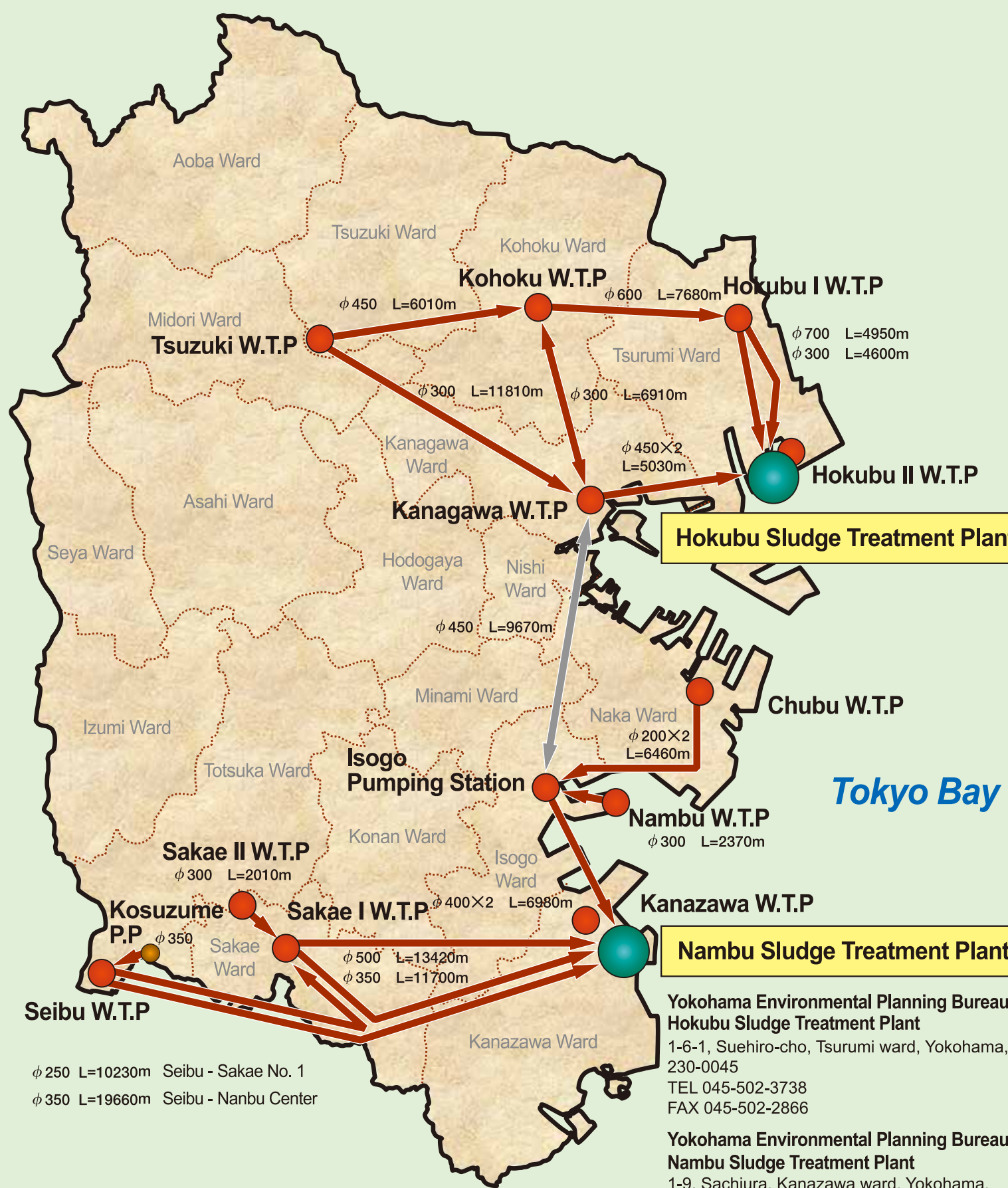
Construction Material

Incinerator ash is used as construction material and contributes to a recycling-based society.

Project to Convert Sludge to Fuel

To prevent global warming, sludge is converted to alternative fuel and used for electricity generation.

Map of Sludge Transportation Route



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The Wealth of Resources in Sewage Sludge

Sludge Treatment Plant



Yokohama Environmental Planning Bureau

Providing a Sustainable Environment for the Future

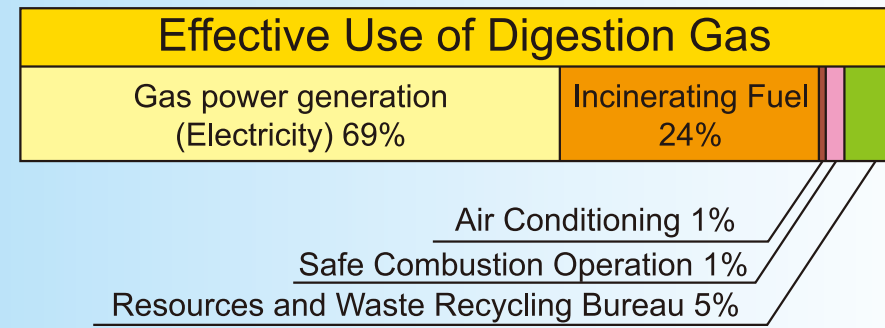


About the Sludge Treatment Plant

Actions Towards a Sustainable Society
 Sludge produces several recyclable resources including digestion gas and ashes after sludge incineration. Sludge Treatment Plant is utilizing these resources effectively to build a sustainable society.

Actions To Prevent Environmental Pollution
 Monitors the level of air pollutants emitted from the incineration of sewage sludge for 24 hours.

Effective Use of Sewerage Resources



The annual amount of Sludge processed by Hokubu and Nambu Sludge Treatment Plant approximates 5,580,000m³.



Sewerage Resources

Sludge

Digestion Gas

Incinerator Ash

Sludge Fuelization

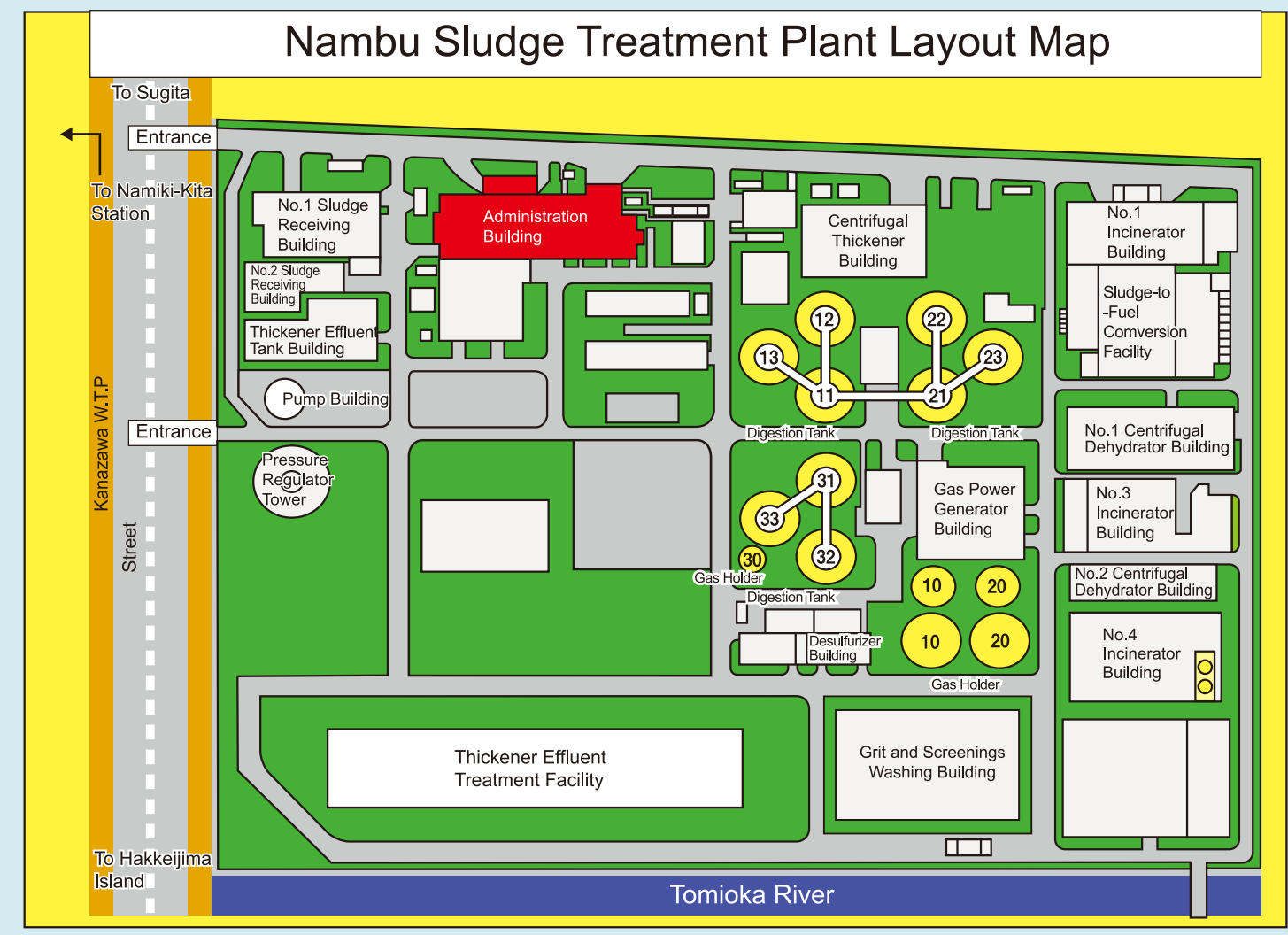
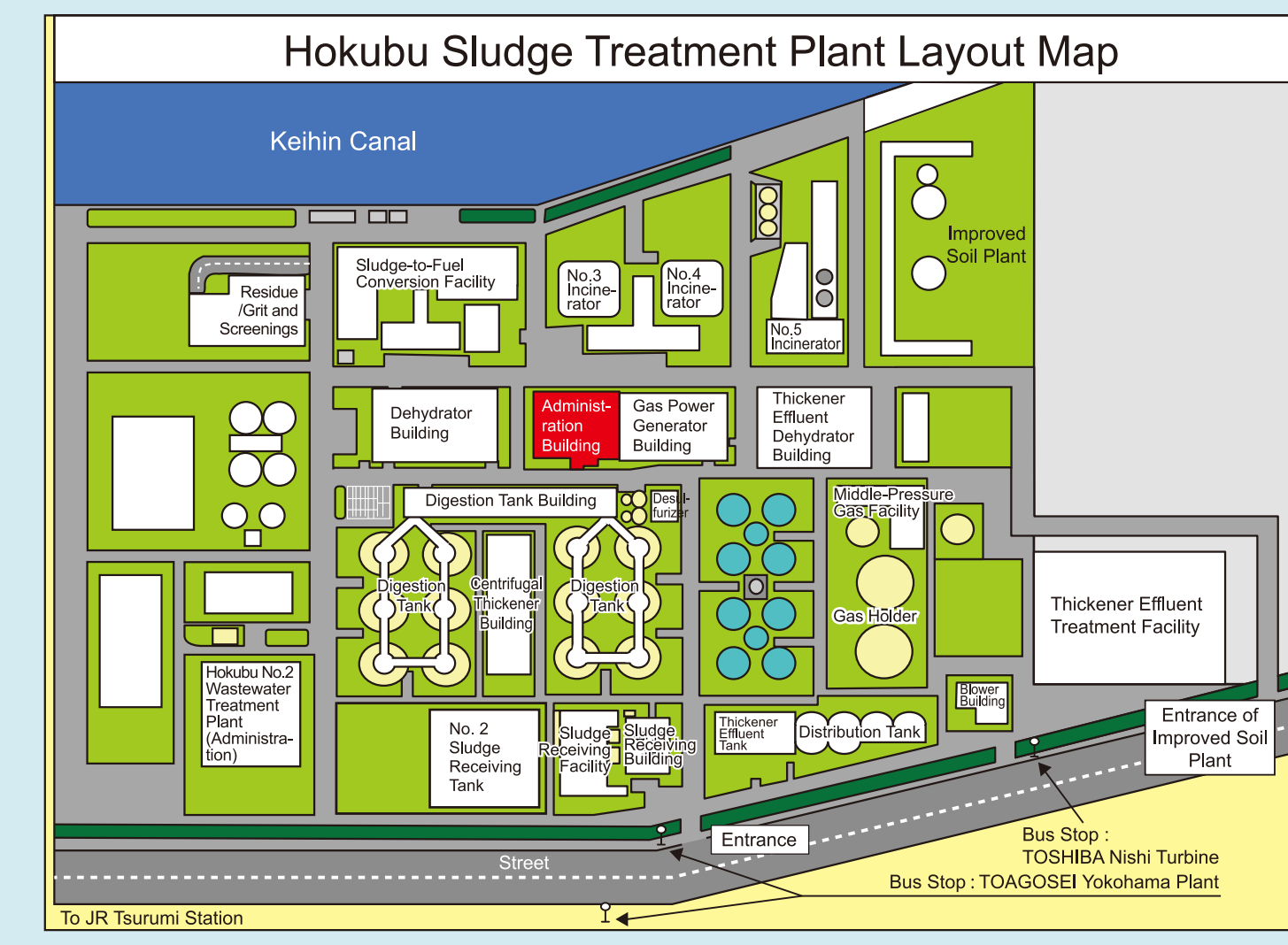
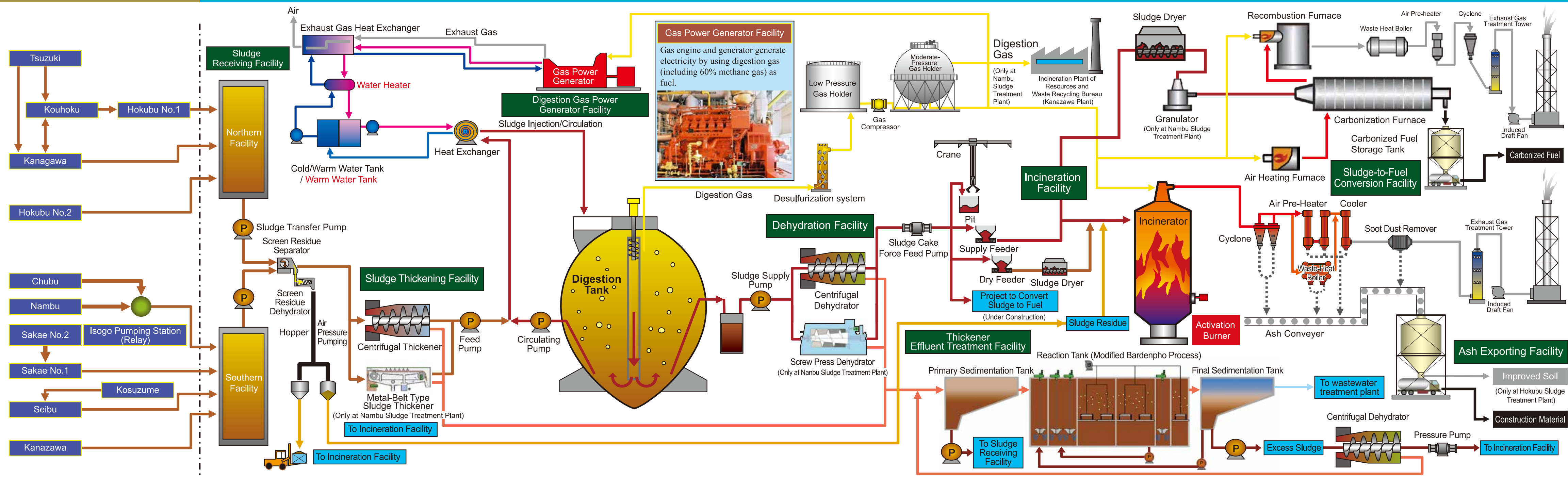


There is nothing to waste!

Flow of Sludge Treatment Process

Districts of Hokubu Plant

Districts of Nanbu Plant



Sludge Transport Facility

This facility transports the sludge produced at wastewater treatment plants to sludge treatment plants by transport pumps.

Sludge Receiving Facility

This facility receives the sludge sent from wastewater treatment plants, separates the sludge from screen residues and transports the sludge to the thickening facility.

Sludge Thickening Facility

This facility mechanically thickens the sludge and transports it to the digestion tanks.

Digestion Tank Facility

Decomposes the organic matters in sludge and reduces the volume. At the same time, stabilizes the sludge's states.

Dehydration Facility

Adds chemicals to the reduced sludge from digestion tank, produces sludge cake and sends it to incineration facility by pressure pumps.

Incineration Facility

Sludge cake is incinerated by the incinerator, and the ash is utilized as improved soil and construction material.

Sludge-to-Fuel Conversion Facility

Sewage sludge is converted into fuel in the low-temperature carbonization system. Carbonized fuel replaces fossil fuel and contributes to the reduction of greenhouse gas emissions.

Thickener Effluent Treatment Facility

This facility treats the effluent produced in thickening and dehydrating facilities, and transports the effluent to wastewater treatment plants.

Ash Exporting Facility

This facility transports the ash from the incinerator as construction material.