

Kitayatsu Waste-to-Energy Plant



Chiba City

Waste Treatment Process

Waste Treatment Process

Waste is treated by melting to convert it into slag and metals for reutilization as resources, greatly reducing the volume requiring final disposal. The generated heat during the combustion is also recovered as much as possible and utilized for power generation and heat supply.

Tipping hall



This is where waste collected from waste stations is dumped into the waste bunker.

Waste bunker and waste crane



This is where the delivered waste is temporarily stored. A huge crane, operated automatically, mixes and homogenizes the waste and feeds it into the shaft furnace-type gasification and melting furnace.

Shaft furnace-type gasification and melting furnace



The waste is melted at high temperatures of 1,700°C. The molten material is cooled and recycled as slag and metals.

Steam turbine generator



Heat generated during waste incineration is used to produce high-pressure steam in a boiler. The steam drives a steam turbine generator to generate power.

Bag filters



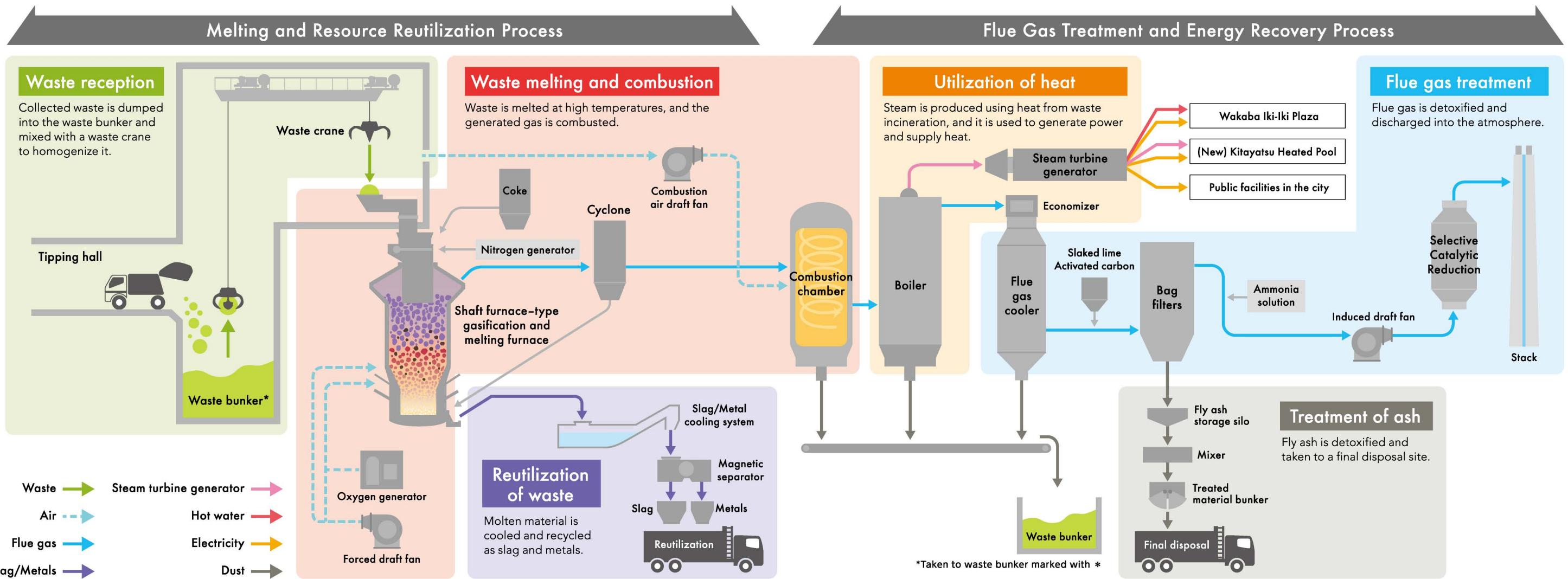
Fly ash contained in flue gas is removed by filters. Toxic substances are also removed by injecting chemicals such as slaked lime and activated carbon into the flue gas.

Central control room



This is where the operating status of all equipment is monitored and controlled. All camera footage and equipment data are gathered here for 24-hour monitoring of the entire facility.

Process Flow Chart



Plant Overview

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Waste crane

Opening width: 5.2 m
Capacity per lift: 7 t

Waste bunker

Width 52 m × Depth 20 m × Height 16 m

Entrance building

Visitors can learn about the natural environment by the facility entrance.

Tipping hall

Width 25 m × Depth 70 m
Approx. 220 garbage trucks per day

Melting furnace

(shaft furnace type gasification and melting furnace)
Diameter: 4 m Height: 14 m Volume: 63 m³
Processing capacity: 585 t/day (195 t/day × 3 furnaces)

Weighing building

This is where garbage trucks are weighed.

Waste heat utilization system

Steam turbine generator
Generated power: 17,030 kW

Stack

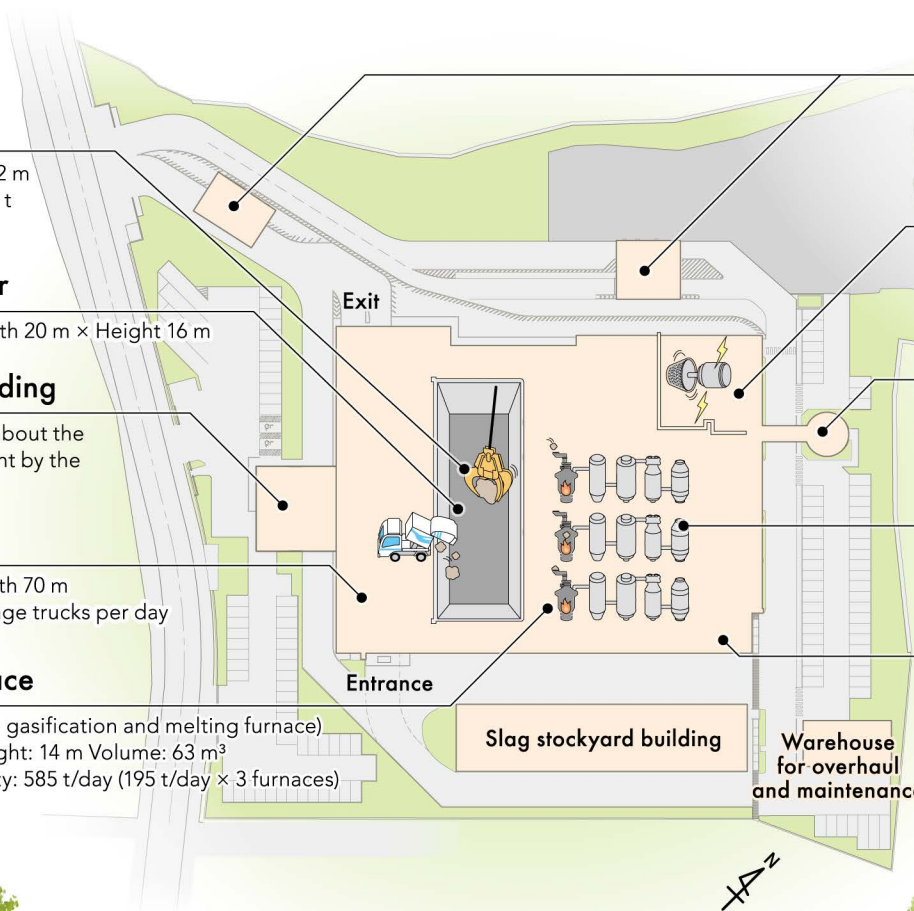
Height: 130 m
Diameter: 10 m

Flue gas treatment system

Flue gas cooler, bag filters, catalytic reactor

Plant building

Visitors may learn about resource recycling and energy in the area where waste is treated.



Access



Facility Overview

Name	Kitayatsu Waste-to-Energy Plant
Site area	30,105.53 m ²
Building area	20,635 m ² Plant building (including entrance building)
Building height	39 m
Number of floors	7 aboveground, 2 underground floors
Stack	Height 130 m, Diameter 10 m
Design and construction	Nippon Steel Engineering / Sumitomo Mitsui Construction Specified construction joint venture
Business operation	Chiba Clean System Co., Ltd.
Start of operation	April 1, 2026

Kitayatsu Waste-to-Energy Plant

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