This joint facility process combustible solid waste collected within the cities of Hino, Kokubunji and Koganei. All exhaust gas is treated to stringent standards before it is released, and the heat generated by waste incineration is used for power generation. It also contains a shelter for evacuees and space for stockpiling emergency supplies for use in the event of a disaster.

Facility Overview

- **Site location:** 1-210-2, Ishida, Hino, Tokyo
- **Site area:** 5,180 square meters
- **Total floor area:** 14,920 square meters
- **Function:** Waste incineration facility
- **Building height:** 32.6 meters
- **Stack height:** 85 meters
- **Date completed:** March 2020

Features

- The Platform has been located on the third floor to minimize excavation of the site. The maximum height of the building has been limited, and the building features a compact design. The waste collection trucks travel on ramps and dump their loads of solid waste into the Waste Pit from the Platform on the third floor.
- Waste heat from the incineration process generates electricity, which enables the facility to operate independently in the event of a power outage. Moreover, the electricity generated here is used within the facility itself, and any surplus power is sold off.
- The facility is open to visitors. In the Visitor Area on the 4th and 6th floors, members of the public can observe and learn about the waste disposal process.
- In the event of a disaster, local evacuees can seek safety on the 6th floor. Space is also available here for the stockpiling of emergency supplies.
- The facility was designed with ample consideration for the environment. It features solar panels on the roof as well as a rooftop garden.

Structural Overview

- **Construction:** Steel frame, steel-reinforced concrete, reinforced concrete
- **Foundation:** Pile foundation, spread footing foundation
- **Floors:** 6 floors above ground, 2 floors below ground

Equipment Overview

- **Processing capacity:** 228 t/day (114 t/day × 2 furnaces)
- **Treatment method:** Continuous combustion (stoker furnace)
- **Power generation facility:** Steam turbine generator (5,190 kW)

Voluntary Exhaust Gas Standards

We have adopted Japan's most stringent voluntary standards.

Item	Voluntary Standard	Regulatory Standard*
Soot and Dust (g/m³N max.)	0.005	0.040
Sulfur Oxides (ppm max.)	10	2,700 approx.**
Nitrogen Oxides (ppm max.)	20	250
Hydrogen Chloride (ppm max.)	10	430
Dioxins (ng-TEQ/m³N max.)	0.01	0.1
Mercury (μg/m³N max.)	50	50

* According to the terms of the Air Pollution Control Act and the Act on Special Measures against Dioxins.
** The regulatory value for sulfur oxides is calculated from the capacity of the equipment installed, including the stack height, flow velocity, and temperature of the exhaust gas.

Access

- **By rail**
  20-minute walk from Manganji Station on the Tokyo Tama Intercity Monorail Line
- **By road**
  About 10 minutes via Hino Bypass Route 20 from the exit for Kunitachi Fuchu Interchange on the Chuo Expressway

Asakawa Seiryu Environment Association
1-210-2, Ishida, Hino, Tokyo 191-0021, Japan
Tel: 042–589–0555 (switchboard)
Fax: 042–589–0545
Email: kawasemi@asakawaseiryu.jp
Website: https://cms.upcs.jp/asakawa/

Operation and Maintenance: Asakawa Environment Technology Co., Ltd.
Design and Construction: Hitachi Zosen Corporation & Penta-Ocean Construction Co., Ltd. Specified Construction Consortium
Implementation & supervision: Tokyo Branch, Eight-Japan Engineering Consultants Inc.

Combustible Waste Management Facility

Asakawa Seiryu Environment Association

Waste Management Facilities & Equipment

A Platform

The collected solid waste is dumped into the Waste Pit through the Waste Dump Doors on the Platform. Automatic sliding doors and an air curtain at the entrance to the Platform help prevent odors from escaping the facility.

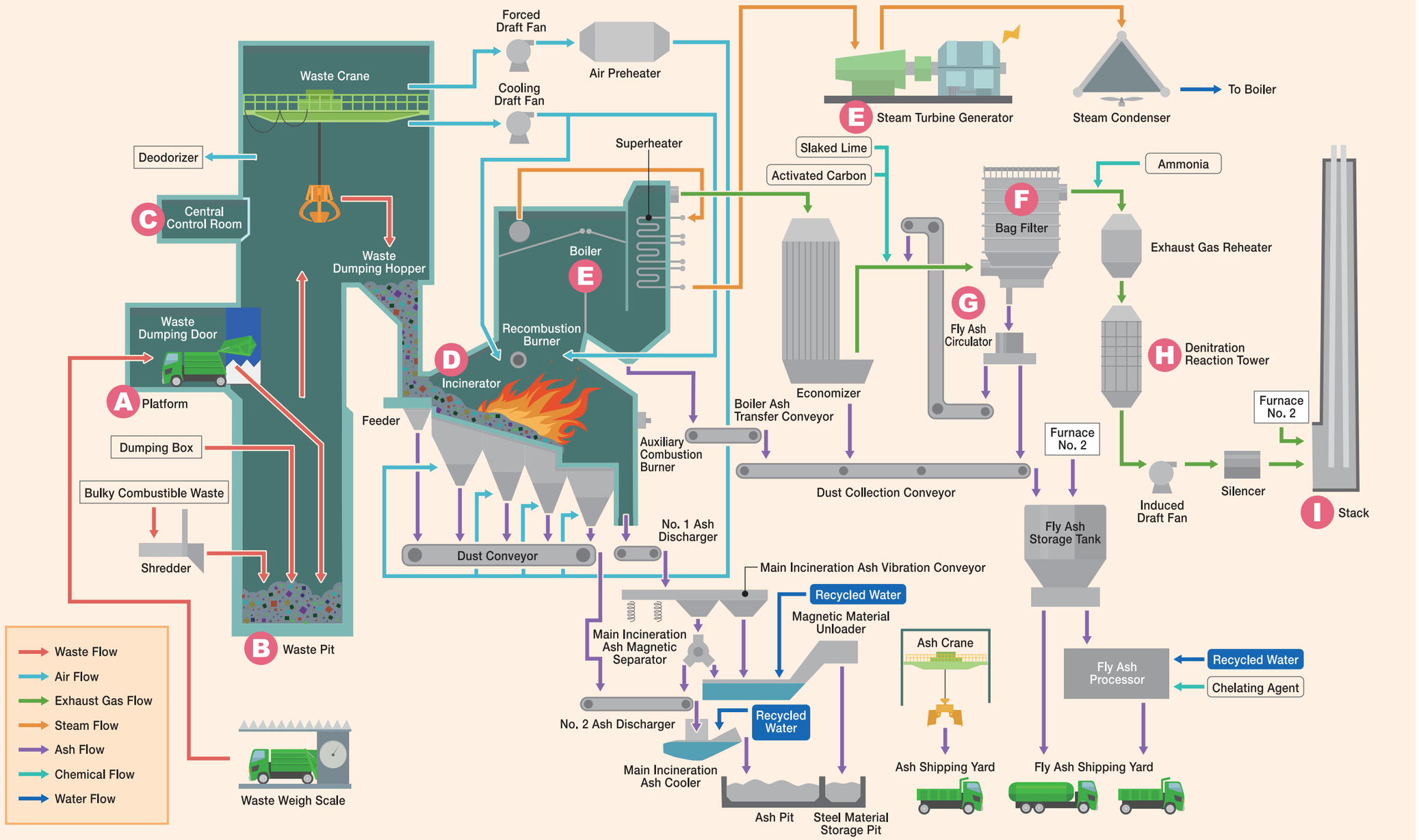
B Waste Pit and Waste Crane

The Waste Pit can hold about a week's worth of solid waste. An automated Waste Crane feeds the accumulated waste into the Incinerator. The Waste Crane can hold up to five metric tons of waste at one time.

C Central Control Room

Operation and monitoring of the various processes within the facility are carried out automatically 24 hours a day. The control computer receives a continual flow of information as well as images from surveillance cameras as it monitors the operational status of the various processes within the facility.

Flow of Waste Treatment



D Incinerator

The incinerator contains two furnaces that can incinerate 114 metric tons of solid waste per day. The waste is completely burned in these furnaces at a minimum temperature of 850 degrees Celsius. This high temperature suppresses the generation of dioxins and other hazardous substances.

E Boiler, Steam Turbine Generator

The heat generated by incineration of the waste is fed to the boiler. There, water is heated to generate high-pressure steam that is used to spin the blades of the steam turbine and drive the generator to produce electricity. The rated power generation capacity is 5,190 kW.

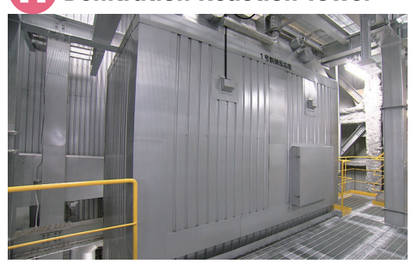
F Bag Filter

Slaked lime and activated carbon are sprayed into the exhaust gas passing through the Bag Filter. The ensuing chemical reactions ensure that dioxins, hydrogen chloride, sulfur oxides, mercury, and any other hazardous substances are collected by the filter cloth in the Bag Filter.

G Fly Ash Circulator

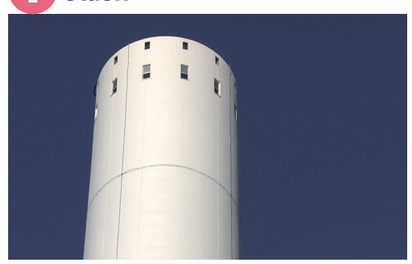
The fly ash collected in the Bag Filter is circulated through the Fly Ash Circulator, and any unreacted slaked lime — which used to be discarded — is reused. This effectively reduces the amount of slaked lime consumed while also reducing the amount of fly ash generated.

H Denitration Reaction Tower



In the Denitration Reaction Tower, nitrogen oxides are removed as they are decomposed into environmentally harmless nitrogen and water. This decomposition is achieved by blowing vaporized aqueous ammonia into the exhaust gas and passing the mixture through a catalyst.

I Stack



After being treated in the Bag Filter and Denitration Reaction Tower, the exhaust gas is released into the atmosphere through the 85-meter stack. The concentrations of hazardous substances contained in the exhaust gas meet Japan's most stringent environmental standards.