# Technical Information Sheet

## 1. Name of technology

Stoker type energy from waste plant (JFE Hyper Grate System)

## 2. Type of technology

Stoker type furnaces are the most proven thermal treatment technology for MSW treatment in the world. In Japan as well, this type of furnace plays an important role as an intermediate waste treatment and is the most accepted technology. JFE Hyper Grate System is an original technology developed by JFE. Its Hyper Grate with advanced combustion control technology and pollution prevention technology brings an efficient and more environmental solution to the table.

## 3. Description of technology

### Objective and application of the technology

JFE Hyper Grate System realizes stable combustion of MSW. The heat generated is recovered efficiently in the subsequent boiler and is utilized for power generation among other uses. This technology sanitizes MSW and reduces the volume by converting it into ash, and contributes to the reduction of landfill.

### Characteristics of the technology

For more than 40 years since the 1960’s, JFE’s stoker furnaces have been used to safely treat MSW and have utilized its heat efficiently.

The latest JFE Hyper Grate System has the following features:

- Prevention of dioxin formation by a unique Two-Way Flue Gas furnace structure and highly advanced combustion control.
- Minimized ignition loss thanks to the excellent mixing and forwarding capability of the grate.
- High-efficiency power generation
- Advanced flue gas treatment technology

### Delivery record

- Osaka Hirano Energy from Waste Plant, Japan
  MSW 900t/d (450t/d x 2 lines), 27.4MW power Generation, Completed in March, 2003
- Yokohama Kanazawa Energy from Waste Plant, Japan
  MSW 1200t/d (400t/d x 3 lines), 35MW power Generation, Completed in March, 2001
- Taichung Energy from Waste Plant, Taiwan
  MSW 900t/d (300t/d x 3 lines), 14.5MW power Generation, Completed in June, 1995
  Total 127 Plants

### Price and other inquiries

- Sales & Marketing Department, Overseas Business Sector
  Tel: +81-45-505-7813  Fax: +81-45-505-7456

## 4. Classification of technology

### (1) Applicable fields

Municipal solid waste treatment, Industrial waste treatment

### (2) Target waste

Paper/cardboard, Waste plastic, Food waste/raw garbage, Construction waste, Other

### (3) Services provided

Plant construction, Sales of machinery and equipment, Technical cooperation/licensing, Other

## 5. Countries to which this technology can be provided

China, Southeast Asian countries, Middle Eastern countries, European countries, North America, South America, Australia

## 6. Keywords

Municipal solid waste, refuse, stoker, intermediate treatment, power generation, detoxification, biomass

## 7. Contact information

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