

Technical Information Sheet

1. Name of technology	Gasification and Melting System for Waste Treatment (JFE High-Temperature Gasifying and Direct Melting Furnace System)
2. Type of technology	The Gasification and Melting System is developed focusing on safe treatment and recycle. Starting our commercial plant in 2003, it has operated safely and stably more than 10 years and has enlarged its market share rapidly. This technology, with its high temperature gasifying furnace, does not generate any bottom ash, but produces recyclable slag and metal. This technology is more environmental friendly technology compared with the conventional technologies.
3. Description of technology Objective, application, characteristics, delivery record, and price of technology	<p>[Objective and application of the technology] This system utilizes coke and gasifies and melts waste at high temperature (Max. 2,000°C) in one step. It can treat wide variety of wastes and slag and metal which are recovered after the treatment can be recycled so the requirement of landfill is minimized. It generates high efficiency electric power and/or supplies steam to district heating systems. Also our continuous molten slag tapping technology makes the operation easier and safer.</p> <p>[Characteristics of the technology] The system has the following features.</p> <ul style="list-style-type: none"> • Very wide range of waste types can be treated. Even low calorific waste such as excavated waste from landfill, ash, sewage sludge, etc. • Production of recyclable material such as slag and metal • Advanced flue gas treatment • High efficiency power generation • Safe and stable operation by continuous molten slag tapping technology <p>[Delivery record]</p> <ul style="list-style-type: none"> • Clean Hill Homan Energy from Waste Plant, Japan MSW 250t/d (125t/d x 2 lines), 4.9MW Power Generation, Completed in March, 2008 • Fukuyama Recycle Power Plant, Japan RDF 314t/d (314t/d x 1 line), 20MW Power Generation, Completed in February, 2004 • Albano Power Plant, Italy RDF 616t/d (308t/d x 2 lines), 33MW Power Generation, Under construction <p>Total 11 plants, 22 furnaces</p> <p>[Price and other inquiries]</p> <ul style="list-style-type: none"> • 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, Other (medical waste, landfill waste)
(2) Target waste	Paper/cardboard, Waste plastic, Food waste/raw garbage, Construction waste, Waste tires, Medical waste, Waste oil, 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, gasification, intermediate treatment, power generation, melting, resource recovery, landfill waste, dioxins, biomass, pyrolysis, RDF
7. Contact information	JFE Engineering Corporation Department: Sales & Marketing Department, Overseas Business Sector Person in charge: Ayako Kuroiwa Contact: TEL: +81-45-505-7813 E-mail: kuroiwa-ayako@jfe-eng.co.jp