

## Technical Information Sheet

<b>1. Name of technology</b>	Refuse incineration system combining a cement kiln and municipal refuse incinerator(CKK System)
<b>2. Type of technology</b>	The CKK system incorporates municipal refuse incinerators into existing cement plants in order to efficiently use heat energy from refuse in the manufacture of cement. This system enables cement plants not only to reduce fuel consumption but also to use the ash produced by incinerators as raw material for the cement, eliminating the necessity for ash treatment facilities.
<b>3. Description of technology</b>	
Objective, application, characteristics, delivery record, and price of technology	<b>[Objective and application of the technology]</b> To establish hygienic and low-cost refuse treatment by incorporating municipal refuse incinerators into existing cement plants.
	<b>[Characteristics of the technology]</b> A fluidized-bed gasification furnace turns municipal refuse into pyrolysis gas. This gas and unburned char are fed to a cement plant along with the fly ash produced from the waste. The cement plant can efficiently use the heat energy and ash from the waste as heat and raw materials for producing cement. In addition, by separating and removing the metals and incombustible substances contained in the municipal waste inside the gasification furnace, they can be prevented from affecting cement quality.  Furthermore, using cement plants helps to dramatically reduce the cost of investment in the construction of municipal refuse incineration facilities.
	<b>[Delivery record]</b> Two plants are in operation in China.
	<b>[Price and other inquiries]</b> Sales Promotion Group, Marketing & Sales Division, Plant & Infrastructure Company TEL: +81-3-3435-6620 FAX: +81-3-3435-6601
<b>4. Classification of technology</b>	
(1) Applicable fields	Municipal solid waste treatment
(2) Target waste	Paper/ cardboard, Waste plastic, Food waste/ raw garbage, Construction waste, Other (Biomass, Sewage sludge)
(3) Services provided	Plant construction, Sales of machinery and equipment, Technical cooperation/ licensing, Other
<b>5. Countries to which this technology can be provided</b>	Asian countries, Middle Eastern countries, Europe, North and South America
<b>6. Keywords</b>	Municipal waste, refuse, cement kiln, gasification, pyrolysis gas
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