

## Topics

### World's First Commercial ITmk3® Plant Successfully Begins Production

The world's first commercial plant to use the ITmk3® Process—the Kobe Steel-developed, new ironmaking technology—has been producing iron nuggets since January 2010.

The plant, which has an annual production capacity of 500,000 metric tons, was constructed in Hoyt Lakes, Minnesota, USA in cooperation with Steel Dynamics, Inc., a major EAF steelmaker.



The first iron nuggets produced at the commercial plant



Rotary hearth furnace

View of the world's first commercial ITmk3® Plant



### Bahrain Pellet Plant\* Completed

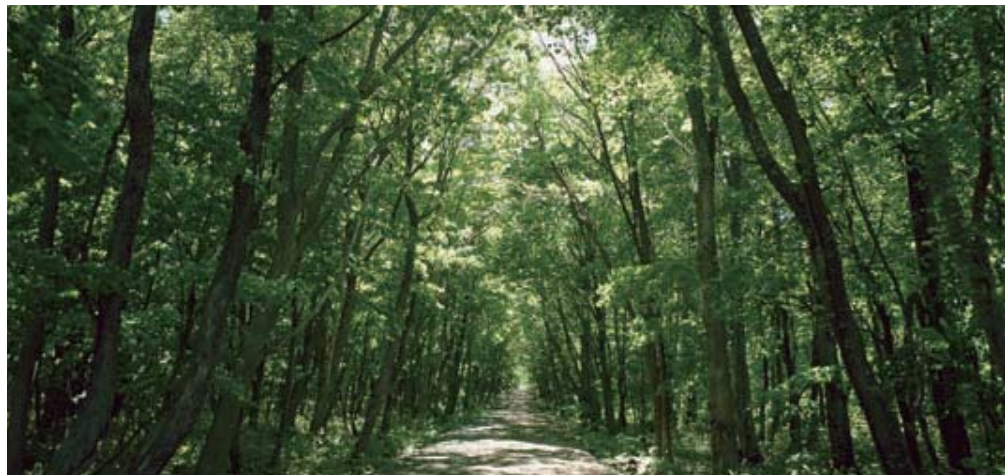
Kobe Steel has completed a pellet plant constructed for Bahrain-based Gulf Industrial Investment Co. (GIIC). This marks Kobe Steel's second pellet plant for GIIC, the first having been completed in 1985. In this project, Kobe Steel was responsible for the design, equipment supply, construction and startup of the plant, the operation of which covered everything from the supply of raw materials to the shipment facilities for the pellets. The new pellet plant has a world-class capacity of 6 million tons per year, significantly exceeding the 4-million-ton plant that Kobe Steel had previously delivered.

\*This plant pelletizes pulverized iron ore for use in blast furnaces or DR plants. The KOBELCO Pelletizing Process uses a rotary kiln in the high-temperature zone to enable a comparatively uniform firing of iron ore pellets.



GIIC's No. 2 Pellet Plant

## Kobelco Eco- Solutions



As "an environmental solutions company that meets the needs of the times," Kobelco Eco-Solutions Co., Ltd. contributes to society by providing products, technologies and services that protect nature and improve the living environment.

## MAIN PRODUCTS AND SERVICES

- Industrial water, water and sewage plants and equipment
- Ultrapure and pure water generation plants and equipment
- Industrial water and wastewater treatment equipment
- Industrial cooling towers and cooling towers for district heating and cooling
- Municipal waste incineration and melting plants
- Recycling facilities for oversized garbage and disused home appliances
- Recycling plants for processing organic waste materials such as foodstuffs
- PCB detoxification
- Final disposal of waste material
- Equipment for the chemical industry
- Powder processing equipment
- Brewing equipment
- Hydrogen oxygen generator

## Outlook for Fiscal 2010 and Key Initiatives

The outlook for fiscal 2010 is for continued shrinkage in public-sector demand. With the exception of certain areas, the recovery in private-sector capital investment is expected to remain gradual.

In this demanding business environment, Kobelco Eco-Solutions will redouble efforts to gain orders for new projects in the domestic water and waste treatment fields, while bolstering its efforts in the after-sales service area to secure profit. In the overseas water treatment field, the company will develop activities designed to gain orders for water, sewage and discharged water treatment plants, focusing on the Southeast Asian and Indian markets. With regard to the overseas waste treatment field, the company will market waste power generation plants in Europe. The company is aiming to expand its business in cooling towers and process equipment in China and Southeast Asia.

## Medium- to Long-Term Business Vision and Key Policies

As "an environmental solutions company that meets the needs of the times," Kobelco Eco-Solutions is targeting consolidated net sales of ¥100 billion and ordinary income of ¥5 billion.

In the Japanese market, the company will strengthen its EPC\* capabilities in plant construction and expand its after-sales service menu, including facility life extension projects and chemicals used in plants. Gaining ground in overseas markets from its four hubs—in Japan, Vietnam, Germany and India—the company will promote sales expansion. In addition, Kobelco Eco-Solutions will work to create new product menus and business in such areas as CO<sub>2</sub> emission reduction, energy creation and recycling.

\*Engineering, Procurement and Construction. A contract under which the contractor assumes full responsibility, from design to procurement and construction.



Minami Refuse Incineration Plant, Sagamihara City

Heat recovery facility at the Shigenka Center, Kawagoe City



## Topics

### First Pilot Project in Japan to Inject Biogas into City Gas Pipes Commences

Kobelco Eco-Solutions is working with Kobe City and Osaka Gas Co., Ltd. on a pilot project that utilizes Kobe Biogas, a biogas derived from sewage sludge, to make city gas at Kobe City's Higashinada Sewage Treatment Plant in Hyogo Prefecture.

This is the first attempt in Japan to inject sewage sludge-derived biogas, refined to city gas specifications, directly into city gas pipes. Utilizing this pilot project to assess operational methods and economic feasibility is anticipated to lead to the spread of similar projects and the effective utilization of biomass resources.



Biogas upgrading facility

### Two Fluidized-Bed Gasification Melting Furnaces Completed

Under construction since fiscal 2006, two fluidized-bed gasification melting furnaces—the Minami Refuse Incineration Plant in Sagamihara City, Kanagawa Prefecture and the heat recovery facility at the Shigenka (Recycling) Center in Kawagoe City, Saitama Prefecture—were completed in March 2010.

By using fluidized-bed gasification melting furnaces in general waste treatment facilities, both locations use the energy contained in garbage to make molten ash from incineration (reducing volume and creating slag). By so doing, in addition to reducing the environmental impact of using landfill for final disposal, this people- and environment-friendly treatment system also contributes to CO<sub>2</sub> emission reduction.

Sagamihara City's Minami Refuse Incineration Plant, the largest of its kind in Japan, has the capacity to treat 525 tons of garbage per day. Furthermore, the deployment of the highest standard of equipment in Japan realizes highly efficient power generation.

The heat recovery facility at the Shigenka Center in Kawagoe City has introduced advanced exhaust gas treatment equipment to significantly reduce harmful substances in gas emissions. In particular, the facility complies with the country's most stringent self-regulation values with regard to dioxins.

Kobelco Eco-Solutions is targeting more orders by taking advantage of the fact that it has the best delivery record in Japan for this type of facility and the accumulated expertise in its use.