

Remarks on the Special Issue on Steelmaking

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In the past 10-odd years, the environment of the world steel industry has markedly changed reflecting the rapid expansion of demands for steel products in the so-called BRICs (Brazil, Russia, India, China) and other newly industrializing economies and the corresponding expansion of crude steel production capacities overseas. Annual crude steel output in the world has jumped from 700 million tons in the 1980s and 1990s to 1,500 million tons in recent years.

During that same period, annual crude steel production in Japan has increased from 90 million tons to 120 million tons in response to the changing demand for steel products. In the meantime, our company has met the challenge of enhancing manufacturing efficiency and cutting manufacturing cost through selection and concentration of optimum production facilities, manufacturing defect-free steel products, and upgrading technologies to manufacture better steel products that can be used under more severe conditions.

For our steelmaking processes, we have made strenuous efforts to develop new materials manufacturing techniques for producing high-grade, high-function steels, to reduce the unit consumptions of lime and other auxiliary raw materials by using large quantities of scrap and effectively applying hot-metal pretreatment during production increase, to improve overall yield, to enhance productivity of continuous casting, and so on.

To augment steel production capacity, we have reinforced the bottleneck equipment in the integrated processes of the existing plants, rather than to construct any new steelmaking plants, thereby ensuring efficient investments for production increases.

At the same time, from the standpoint of curbing carbon dioxide emissions that contribute to global warming, we have developed new technologies for manufacturing high-strength steels that allow for vehicle "weight reduction" and have made joint efforts with customers to expand "local procurement" of high-grade steels overseas and thereby meet social needs.

Additionally, from the standpoint of making steel products that are friendly to the local environment, we have not only advanced methods to conserve energy use but have also developed technologies for recycling steelmaking dust, slag, etc. We have implemented thoroughgoing measures to eliminate dust and smoke from steelmaking plants resulting in an improvement of the working environment. All this contributes to "steelmaking that is friendly to the global environment."

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Above all, since customer needs at home and abroad have rapidly become increasingly sophisticated, it is imperative that we continue supplying higher-function steel products at reasonable costs and on a reliable basis.

With the merger with Sumitomo Metal Industries, Ltd. just around the corner, we publish this "Special Issue on Steelmaking," covering the steelmaking technologies the company has fostered, with a determined eye turned towards making a concerted effort to achieve a perfect fusion of the advanced technologies fostered by the two companies and to contribute to society with the "world's No. 1 steelmaking technology."