

# FOREWORD

The environment surrounding the special steel bar and wire rod business has changed greatly in the past several years. Until the first half of 2008, demand for steel was extremely robust, and all steel makers made strenuous efforts to increase production in order to respond to strong quantitative demand from the main demand sectors for steel, including the Japanese and foreign automobile, shipbuilding, construction machinery, and electrical appliance industries, plant construction, and energy development-related industries. As a result, domestic production of special steel bars and wire rod material increased from 6.82 million tons/year in 2001 to 10.67 million tons/year in 2007. However, the financial crisis in the United States, which became apparent in the summer during the second half of 2008, marked a turning point. The crisis had a severe impact on the real economy worldwide and caused a sharp drop in the level of activity in steel-consuming industries after early fall. As steel makers abandoned plans to increase production, annual production for the year fell to 9.5 million tons. These depressed conditions continued through 2009.

In this environment, or rather, precisely because of this environment, JFE Steel believes that it is essential to work to develop new products and improve production/quality assurance technologies which respond to strict quality requirements from various industrial fields, based on a recognition that technical development capabilities are the wellspring of competitiveness in manufacturing industries.

The establishment of JFE Steel in 2003 created a system in which the special steel bar and wire rod division possesses both blast furnace production and electric furnace production within the JFE Steel Group, and thus expanded the line of products that we can produce. Over these past several years, the JFE Group has promoted development from the following viewpoints: (1) Materials which contribute to reducing CO<sub>2</sub> emissions, (2) materials which eliminate environmental load substances such as lead, etc., (3) materials which make it possible to omit processing and heat treatment processes, and (4) materials

expansions.

We hope that this special issue will enable our readers to understand a part of JFE Group's activities, which are based on a corporate philosophy with technical development at its core.