

FOREWORD

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Two years passed after publishing last “Special Issue on Steel Pipes and Tubes” and the environment surrounding the pipe business has undergone enormous changes during this period. Led by China, steel production has increased greatly. World crude steel production exceeded 1 billion tons per year in 2004 and is continuing to grow. Furthermore, in the steel industry, a large-scale merger and acquisition is underway. The pipe sector has also changed significantly. In particular, China has dramatically increased its production of pipe and tubes during the last 10 years. As a total of seamless and welded pipes, China’s production in 2005 was approximately 26 million tons, or 1/3 of the world total. Against the backdrop of substantially increased demand for steel pipes accompanying heightened energy demand, reforms in the structure of the steel pipe market are progressing, as seen in the startup of new mills, particularly in the BRICs countries (Brazil, Russia, India, and China) and the announcement of large-scale investment plans.

With the likelihood that oil prices will remain high and the continuing strong performance of the energy industry, the development and production of new petroleum and natural gas are shifting to arctic, deep-water, and other severe environments. As a result, demand for cost reduction in the production and transportation of these resources has become stronger, accelerating technical development in the design and construction of oil/natural gas wells and pipelines. Under these conditions to improve the safety of wells and pipelines, higher properties and quality are required in oil country tubular goods (OCTG) and line pipe being in consideration of corrosion and fracture.

JFE Steel always makes efforts in the research and development to the new field as a steelmaker contributing to the society. JFE Steel developed seamless tube of the high strength high corrosion resistance OCTG of the 13% Cr, a UOE steel tube represented by high strain pipe and sour line pipe and electric resistant welding pipe for line pipes of the high quality having world greatest dimension. JFE Steel carried out the study of mechanism and evaluation technique of destruction and the corrosion of materials and the measures as well as the development of materials having a superior characteristic and high reliability.

This special issue reports results of research about 12% Cr martensite stainless steel for line pipes and safety of the pipeline. We are happy if we have you understand one end of the activity based on JFE Steel's Corporate Vision in which technology development is our core competency.