FOREWORD

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JFE Steel recognizes that the climate change issue is the utmost importance for management, and is powerfully promoting efforts to achieve carbon neutrality by 2050. Based on our Corporate Vision of "contributing to society with the world's most innovative technology," we have taken on the challenge of developing ultra-innovative technologies toward the decarbonization of the steel making process. We are working to increase our corporate value by contributing to reduction of CO_2 in society as a whole and realizing a sustainable society through the development and supply of Eco-products and Eco-solutions.

Steel pipes, which are the theme of this issue of JFE Technical Report, include a diverse range of products for use in material transport, such as oil country tubular goods (OCTG), linepipe, gas, water and air-conditioning plumbing, as well as various fields of industry, including energy, civil engineering, architecture, shipbuilding, plant engineering, construction and industrial machinery, and automobiles, where they are used as structural materials taking advantage of their hollow structure, and these are indispensable steel products for our daily lives. As a pioneering company that was the first to produce steel pipes in Japan, JFE Steel responds to the needs of all industrial fields by developing various types of steel pipe products based on tireless technological innovation and offers the optimum product lineup corresponding to the customer's application in a wide range of size variations.

To support the transition to a decarbonized society, diversification and functionality enhancement to meet the needs required in steel pipes are accelerating. To utilize new energy sources such as geothermal heat, hydrogen, ammonia, etc., and on the other hand, to ensure stable energy supplies during the transition period, steel pipes that respond to changes in the demand environment and customer needs are required.

These changes include expansion of oil well development in more severe corrosive environments, higher efficiency and resource-saving in energy development, exemplified by EOR (Enhanced Oil Recovery: technologies for improving the crude oil recovery volume by pressurizing oil reservoirs with water, CO_2, etc.), business development of CCS projects (Carbon dioxide Capture and Storage: technologies for separating and recovering CO_2 and storage in underground formations), and further weight reduction and expansion of design flexibility of

members in various industrial fields, such as construction and automobiles, among others.

In the midst of these changes, JFE Steel is promoting the development of steel pipes suitable for new applications, including CCS and hydrogen/CO_2 transportation, etc. and products for more severe corrosion environments, enhancement of our knowledge of the corrosion resistance performance of steel pipes in various applications and use environments, the development of lightweight, high strength and excellent workability steel pipes such as "lightweight steel pipes for plumbing applications" and "HISTORY™ steel tube for high strength automotive stabilizers", furthermore the development of processes that further heighten quality performance and production efficiency.

This Special Issue introduces the development of manufacturing technologies for JFE's seamless pipes and welded pipes, together with the most recent status of the development of these technologies. JFE Steel is firmly committed to the realization of a sustainable society through research and development in the future as well. We sincerely request your further guidance and support in achieving this goal.