

# FOREWORD

UEDA Hiroshi

Senior Vice President,  
(Construction Materials & Services  
Center)  
(East Japan Earthquake  
Reconstructive Cooperation Team)  
JFE Steel



It has been about three years since the Great East Japan Earthquake struck on March 11, 2013. The “Off-Pacific Coast of Tohoku Earthquake,” which caused the earthquake and tsunami disaster, was a magnitude 9.0 giant earthquake, and was not only the largest earthquake in Japan’s history, but also the 4th largest in the world since record-keeping began in 1900. In particular, the giant tsunami, which is said to have been a once-in-1000-year event, claimed a large number of lives and caused unprecedented damage over a wide region of Eastern Japan. Reconstruction efforts for new community-building have progressed, thanks to the diligent efforts of the victims themselves and the good will of many others, both in Japan and in other countries. Nevertheless, the road from such wide-spread, catastrophic destruction to complete reconstruction is still a long one.

Other giant earthquakes, including an offshore earthquake with its epicenter in the Nankai Trough, and an inland crustal earthquake (earthquake with its epicenter directly under Tokyo area, etc.) occurring before or after a Nankai earthquake, are also considered increasingly imminent. In addition to earthquakes, other kinds of massive natural disasters which Japan’s capital and other urban areas have not been experienced in the past are also a concern. These include, for example, winds and rains of increasing intensity (tornados, frequent localized torrential rains), which are blamed for climate change.

The JFE Group previously prepared a catalogue of earthquake reconstruction support products and technologies, which was entitled “JFE Earthquake Reconstruction Support for Safe and Secure Community-Building,” and has been engaged in activities so as to contribute to recovery and reconstruction at the earliest possible timing. The catalogue is divided into seven categories: “Disaster Prevention and Mitigation,” “Countermeasures against Tsunami and Storm Surge,” “Seismic Retrofitting of Port Structure,” “Countermeasures against Landslide,” “Countermeasures against Liquefaction,” “New Technologies for Urban Development,” and “Emergency Response during Disasters and Disaster Debris Treatment.” Corresponding to these purposes, relevant technologies and products are introduced.

This JFE Technical Report, “Special Issue on Safe and Secured Urban Development,”

has one aspect as a technical commentary on the earthquake reconstruction support products described above, while also introducing the technical efforts and products supplied for practical use by the JFE Group with the aim of realizing safe and secure community-building, such as countermeasures for natural disasters, including future giant earthquakes, countermeasures for energy and environmental restrictions, etc. In the future, the JFE Group, as one, will continue to timely supply products, technologies, and services which are useful in the world.

Finally, I wish to take this opportunity to express my heartfelt sympathies to all the victims of the Great East Japan Earthquake. I am praying for the safety of all those in the disaster-stricken region, and for the speediest possible reconstruction.