Japan is currently facing a number of issues which must be addressed, particularly in connection with the handling of environmental and energy-related problems represented by countermeasures to prevent global warming, and renovation and extension of the life of aging social infrastructure.

In the area of the environment and energy, with increasing energy consumption in the BRICs countries, which have achieved remarkable economic growth in recent years, reduction of greenhouse gas emissions and solution of the problem of resource depletion have become critical common issues for the world as a whole. In response, the trend toward a global “Green New Deal” has become significantly stronger, and the approaches of various countries are becoming clear, as seen in the debate at COP15 meeting of 2009. Changes in the social structure are accelerating in Japan. This is exemplified by the transition from a “fossil fuel-dependent society” to a “low carbon society” and “recycling society.”

On the other hand, the social infrastructure which Japan created during the high growth era now requires reconstruction, heightening the need for renovation and life extension based on life cycle assessment.

Responding to these changes in a way that contributes to realizing a sustainable and affluent society by mobilizing intelligence and creativity is the social mission of business enterprises. In particular, because JFE Engineering possesses a diverse range of technologies in both the environment and energy field, and the social infrastructure field, we are confident that this company will play an increasingly important role in the future.

This “Special Issue on Engineering” of JFE Technical Report introduces representative products and technologies which respond to the needs of the times in the environmental load reduction field, such as environmental purification, energy saving and new energy technologies, fields related to social infrastructure, such as steel structures, and maintenance technologies, including inspection and diagnosis.

As a member of the JFE Group, we share the Corporate Vision of “Contributing to society with the world’s most innovative technology.” In the future, we will respond to the
needs of society by taking on the challenge of technical development which contributes to improvement of the global environment. We look forward to continuing advice and support of all concerned.