

Organization of JFE Group[†]

Abstract:

The JFE Group is organized as a holding company with five operating companies. This organizational structure provides effective operational management that is based on the specific characteristics of each business segment, while effectively using the synergistic effects of the whole group. Both JFE Steel and JFE Engineering have their own R&D institutes. In addition, JFE R&D is established in order to focus on research and development of common basic technologies and to effectively develop the newest, leading-edge technologies.

1. Introduction

The objective in creating the JFE Group is to establish an efficient and transparent management system that provides both competitiveness and risk management as the business foundation for realizing an “Excellent Company of the 21st Century” that pursues global business activities.

In consolidating the operations of NKK and Kawasaki Steel, the management chose a holding-company system to realize this objective. Under JFE Holdings, the businesses of the two companies were regrouped by business segment into five operating companies: steel, engineering, urban development, microelectronics, and R&D.

The major aim in adopting this system is to achieve a more effective operational management based on the specific characteristics of each business segment and to effectively realize the synergistic effects of the whole group.

This paper introduces the business organization of the JFE Group and its R&D system.

2. Business Organization of the Group

The business organization of the JFE Group is composed of a holding company and five operating companies, as shown in Fig. 1.

2.1 JFE Holdings

As a holding company, JFE Holdings performs functions commonly applicable throughout the Group, as listed below, and promotes efficient management of the Group through establishing group strategies and governance capabilities.

- (1) Management of the Group and administration of the operating companies,
- (2) Public and investors relations with share holders and other parties outside of the group,
- (3) Establishment of management strategies and plans,
- (4) Establishment of financial policies, and integrated procurement and management of funds,
- (5) Consolidated planning and accounting,
- (6) Planning of common strategies for high-growth business fields such as the environment and energy,
- (7) Implementation of IT measures common throughout the group.

2.2 JFE Steel

JFE Steel uses the business management system described below to achieve the highest level of competitiveness using a firm sales foundation, advanced technologies, and the strongest and most efficient steel works and manufacturing facilities.

(1) Management System Based on Product Type

The highly competitive management system is based on an eight-product-sector system to provide an agile response to customers’ requirements, which are becoming increasingly sophisticated, and to

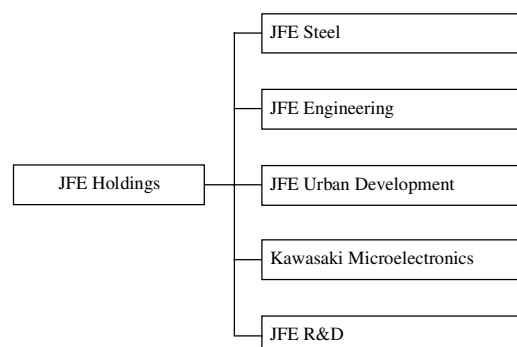


Fig. 1 Business organization of the JFE Group

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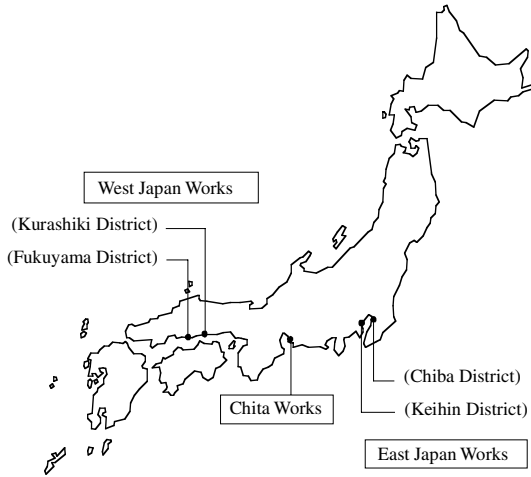


Fig.2 Location map of JFE Steel's three works

manage profit-ability for each type of product.

The eight product sectors are as follows.

- Sheet
- Plate
- Shapes and Spiral Tubes
- Tubular Products
- Stainless Steel
- Electrical Steel
- Steel Bar and Wire Rod
- Iron Powder

(2) Operation by Two Steel Works and One Mill

Steel production sites are reorganized into three: two major steel works of East Japan Works (Keihin and Chiba District) and West Japan Works (Kurashiki and Fukuyama District), and one product plant at Chita Works (Fig. 2).

The integral management of neighboring production sites as a single steel works minimizes the production and transportation costs by effectively utilizing the equipment characteristics of each site. The facilities of the same kind are consolidated into one, and the remaining equipment is operated at its maximum efficiency. Consequently, a new production system has been established to provide world-leading competitiveness.

2.3 JFE Engineering

JFE Engineering aims to provide solution engineering supported by world-leading technologies in the fields of energy with the emphasis on pipe lines, environment with the emphasis on waste, water supply and sewage treatment, steel plant engineering, steel structures such as bridges and iron frames, and industrial machinery.

Business operations are carried out through the virtual division company system. Each business division of JFE Engineering forms a division company with

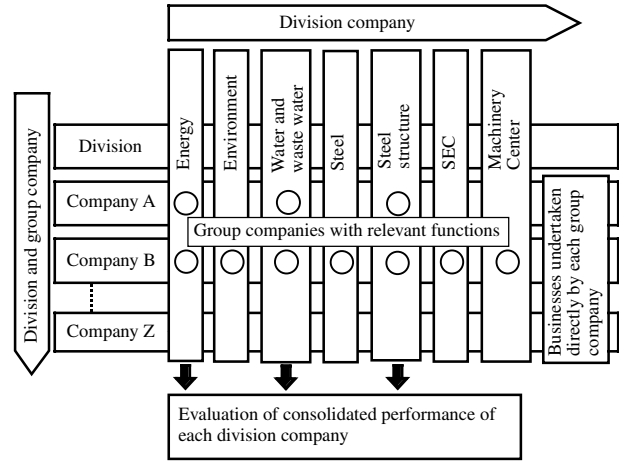


Fig.3 JFE Engineering's virtual division company system

other relevant group companies. The aim is to promote a speedy response to the changes in business environment under a common management strategy, while maximizing the consolidated profit in each business field.

JFE Engineering's division company system is composed of five business divisions, two business centers, and group companies that are related to each of these business divisions and centers (Fig. 3).

(a) Divisions

- Energy Industries Engineering
- Environmental Industries Engineering
- Water and Waste Water Engineering
- Steel Engineering
- Steel Structure Engineering

(b) Centers

- Solution Engineering (SEC)
- Machinery

2.4 JFE Urban Development

JFE Urban Development promotes urban development businesses. The principal projects are development of large-scale unused land in possession of the JFE Group and the condominium development business in Tokyo metropolitan and Kansai areas.

2.5 Kawasaki Microelectronics

Kawasaki Microelectronics promotes businesses related to application specific integrated circuits (ASIC) technology with the aim to become a world-leading ASIC vendor. Its business centers on network- and communication-related ICs and image-processing ICs for digital cameras and OA products.

2.6 JFE R&D

JFE R&D consolidates research and development for basic technologies common to JFE Steel and JFE

Engineering and those in high-growth fields. Its objective is to effectively realize the synergistic effects of the whole group and to effectively develop the newest, leading-edge technologies.

3. R&D Organization of the JFE Group

The JFE Group intends to develop technologies at the highest level in the world and to continually improve those technologies in order to expand and stabilize its business foundation for the future.

The three-research-institute system is designed to meet this objective. Both JFE Steel and JFE Engineering maintain their own research institutes. In addition, JFE R&D is established in order to focus on research and development of common basic technologies. This system addresses the following tasks (Fig. 4):

- (1) Sales expansion of unique, “Only-one, No. 1” products through the constant creation of “Only-one, No. 1” technologies,
- (2) Development of process technologies that contribute to the enhancement of equipment productivity and early achievement of production cost targets,
- (3) Possession of leading technologies in core areas and high-growth fields.

The organization and function of each research institute are introduced below.

3.1 Steel Research Laboratory

The Steel Research Laboratory is composed of research departments for different fields of product and process. It pursues R&D activities to create next-generation products and technologies based of the strategies of product sectors and strategic business units (SBU).

The development of new products is performed in cooperation with the relevant sector to enhance customers’ satisfaction.

The development of processes is focused on the achievement of target production costs.

Steel Research Laboratory also assumes the role of promoting integrated R&D activities in cooperation with group companies in steel-related fields such as construction materials, electric furnaces, and chemical products as a core of R&D activities of JFE Steel Group.

3.2 Engineering Research Center

Engineering Research Center develops technologies that are unique in the world, and conducts trials that lead to new business opportunities in wide areas such as energy, the environment, water supply and sewage treatment, steel engineering, and steel structures.

Engineering Research Center is composed of the following research departments:

- Energy Plant Systems
- Environmental Plant Systems
- Aqua Technology
- Production Engineering

It develops technologies for reducing CO₂ emissions, cleaning up the environment, and establishing a recycling-oriented society. In addition, prolongation of life of industrial and social infrastructures and preparation for the advent of a nano-technology society are also important issues.

3.3 JFE R&D

JFE R&D is an R&D center for elemental technologies common to steel and engineering fields. It also contributes to the profit of JFE Group through the development of advanced, fundamental and basic technologies.

JFE R&D aims to develop the most advanced elemental technologies in the following five fields:

- Measurement and control
- Machinery
- Civil engineering and construction
- Numerical analysis
- Biology and catalysts

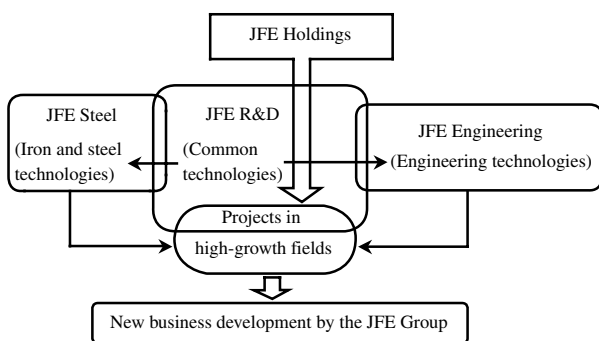


Fig.4 R&D organization of JFE Group

4. Summary

As indicated in its corporate philosophy, JFE Group will contribute to the society as a global corporation with world-leading technological capabilities. In accomplishing this goal, the newly started management and R&D systems must exhibit real capability as early as possible and create numerous, unique “Only-one, No. 1” products and technologies.

JFE Technical Report transmits to society information on those “Only-one, No. 1” products and technologies, as well as on other technologies that JFE Group develops, to contribute to various fields of society.