

Human Resources Underpin JFE's Future

Human Resources Efforts by the "JFE Generation"

For JFE's broad range of businesses centered on steel, the quality of each business is underpinned by the efforts of every employee. Some 14 years since being launched in 2002, JFE is now undergoing a major internal change as the workforce shifts to the "JFE generation," or employees who joined the company after JFE was formed. How will these employees make their mark on the company going forward?



Knowledge Transfer

As a leader with a sense of heritage, I strive to transmit machine maintenance skills to our next generation.



PROFILE

Takuya Furukawa

Leader in the Cold-Rolling Equipment Section, Equipment Division, Chiba District of East Japan Works, JFE Steel. Joined the company in 2007 and later was assigned to the Cold-Rolling Equipment Section, Equipment Division. In charge of maintaining rolling equipment since 2015.

Ensuring stable cold rolling

The Chiba District of JFE Steel's East Japan Works mainly produces thin steel sheets for cans and sinks. The production operations use a technique called cold rolling, in which steel measuring approximately 3 mm thick is processed until it is one-tenth this thickness.

According to Takuya Furukawa, 29, who is in charge of maintaining the plant's cold-rolling equipment (2TCM): "In cold rolling, errors of a mere 0.1 mm can affect the quality. My role is to inspect and repair the equipment so that it can continue to produce high-quality products stably."

Maintenance is handled by a three-person team. Furukawa, the leader, thoroughly inspects all inspection documents filled out by his two subordinates, one of whom is a 19-year-old who just joined the company.

"Our 2TCM is the world's fastest cold-rolling machine. Because of its rapid rotating speed, it tends to wear out quickly, so it must be maintained frequently. Malfunctions could bring the plant's entire production process to a halt, so we have to diagnose problems and fix them rapidly."

Misidentifying a malfunction also could lead to a work stoppage and have a significant impact on operations, so the maintenance personnel are tasked with an enormous responsibility.

"When I make a diagnosis, I start by examining past maintenance records. If a particular malfunction has never occurred before, I confer with subordinates and superiors to figure out a solution. The more difficult the problem is, the happier I am when we solve it!"

Young leaders take charge of passing down technical skills

Takuya Furukawa

Leader, Cold-Rolling Equipment Section, Equipment Division
Chiba District of East Japan Works
JFE Steel

From conveying skills to devising all-new methods

Furukawa became a leader in his eighth year. Like other manufacturers, steelmakers are experiencing a rapid generational shift. In JFE's case, the company has been actively appointing young people as new leaders.

"This is the first time that I have been responsible for junior employees. I cannot just keep my knowledge bottled up inside myself if I want to make this a better plant. I'm working to ensure that lessons which took me five years to learn can be mastered by my juniors in just one year."

Furukawa, who is young for a worksite manager, first learned about technical skills from a superior. The large number of malfunctions that he handled firsthand were instrumental in his fast rise.

"Whenever a problem occurred, my superior would come to me and put me at ease by saying, 'We can solve this problem.' After the problem was fixed, my superior would show me detailed drawings of the machine and explain the cause of the problem. By showing the whole picture, he instilled in me the ability to think on my own."

As time goes by, new malfunctions crop up with machinery. Furukawa discusses how this makes it so important to be able to find a solution regardless of the situation.

"It has been more than 50 years since the 2TCM went into operation, and all records of its maintenance have been saved. This gives me a strong sense of this heritage, so as I go about my job, I feel that I must make my

own contribution to this legacy. And I must foster people who can write a new and even better chapter in our history. This is how JFE will continue to accumulate technology."



Training engineers to lead JFE into the future

Teruo Yoshida

Supervisor, Cold-Rolling Equipment Section, Equipment Division
Chiba District of East Japan Works
JFE Steel



"Our job as supervisors is to place the right person in each position. Leaders are required to have comprehensive capabilities, so in the case of worksite leaders this means people who can deal with a broad range of people, as well as machines, while also managing safety, quality, costs and deadlines. Narrow-minded people can't handle such roles. A leader's worth is not determined by how well they themselves work, but by how well their entire worksite functions. People such as Mr. Furukawa, who consider the big picture when making decisions, will

underpin the plant as it moves forward.

"As veterans, we instruct young employees with the understanding that they will play central roles someday. So, rather than focus just on short-term solutions by asking them 'what should we do?', we help them understand causal relationships by asking 'Why should we do that?' I like to take the time to discuss things, because the innovative ideas that people can come up with when they are trained this way have the possibility to become new standards for us. Developing

a future generation of such people will be an indispensable asset for JFE.

"We have instituted test programs, such as the Technical Expert Program, in which veteran and even retired engineers serve as expert instructors at each workplace. We also involve young employees in problems that ordinarily they would not encounter. Going forward, we intend to pass on technical skills even more vigorously as part of the fostering of outstanding human resources to ensure our long-term survival."



Development

**Connecting Japan and the world:
A key role for our foreign staffers**

Rapidly delivering products and building trust

JFE is increasingly employing foreign (non-Japanese) personnel to help develop business in markets outside Japan. The Hanoi Branch of JFE Shoji Trade Vietnam Co., Ltd., for example, employs four locals for sales or administrative work. One of them, Pham Truc Quynh, is in charge of raw materials sales.

“Our major commodity is steel scrap from Japan, which we sell to steel manufacturers in Vietnam. Since the construction of buildings and apartments is proceeding apace in Vietnam, the demand for steel scrap is growing.”

Developed countries have large reserves of steel scrap left over from the dismantling of old buildings and so on. Most of the scrap imported into Vietnam is from Japan.

“My job is to assess the buyer and supplier’s respective situations and then offer them a proposal. The amount of steel scrap available for supply is very volatile, so this leads to significant price fluctuations from one day to the next. I always need to have the latest information to negotiate transactions, so I stay in contact with supply centers throughout Japan, checking in with them every 15 minutes through an online chat. I must offer the buyer the absolute best materials at the absolute best price, so it is incredibly rewarding to be able to satisfy them and then convey the good news to my Japanese colleagues.”

Employees like Quynh, who speaks fluent Japanese, are opening up



PROFILE

Pham Truc Quynh

Sales representative at the Hanoi Branch of JFE Shoji Trade Vietnam Co., Ltd. Did a short-term study in Japan and interpreted at a Japanese company before joining JFE in 2011. After working in a clerical position as a sales assistant, became a sales representative. Mainly handles steel scrap and alloy iron.

Global personnel helping to expand our global business

Pham Truc Quynh

Sales representative

Hanoi Branch, JFE Shoji Trade Vietnam Co., Ltd.

avenues to new business for JFE by leveraging their deep familiarity with circumstances, culture and language in local markets.

Harnessing the power of raw materials to develop her home country

After working as an interpreter at a Japanese IT company, Quynh joined JFE Shoji Trade Vietnam Co., Ltd. out of a desire to broaden her horizons.

“I entered JFE in a clerical position, but I was hand-picked for promotion by the branch manager, who could see that I enjoy communicating with people. I was able to grow because everyone participated in teaching me how to logically analyze market conditions and indicators. In fact, everyone in the office would help one another out, which made for a very pleasant work environment.”

The local hires in the Hanoi Branch and its affiliate companies are all women. They support one another not only in work but also in family matters, such as childcare. So, as a local employee, how does Quynh view a foreign company such as JFE Shoji Trade?

“It used to be that steel scrap in Vietnam mainly came from Africa or South America. JFE Shoji Trade Vietnam was a pioneer in bringing in high-quality Japanese products. When I see bridges or buildings being constructed with materials that I purchased, I feel a deep sense of pride that I am contributing to my home country. The market is still growing, so I intend to continue helping it develop.”



As one who likes to take on challenges, Quynh has a big future goal. “My current job is to purchase raw materials, but someday I would like to market technical capabilities to Vietnamese customers. Steel manufacturers in the market here mainly sell products such as building materials, but if I could offer them JFE’s extensive technical capabilities, they would be able to produce higher-quality, higher-performance products. I also would like help to forge increasingly warm relations between people from Japan and Vietnam to support further growth in my country.”

Foreign personnel help JFE prevail internationally

Isao Sumiyoshi

(Former) Branch Manager
Hanoi Branch, JFE Shoji Trade Vietnam Co., Ltd.



“Foreign employees are indispensable to the effort to expand our Asian markets. When we compete with local companies, the fact that we can communicate on a native level creates a big advantage for us. In meetings, for example, our local employees can elicit people’s true intentions and feelings based on their understanding of local culture and language. They can pick up subtle sensibilities expressed in person and through direct dialog, which is not possible through written or translated communication or other indirect means. This is how we differentiate JFE’s

strengths to attract orders.

“At the same time, we must thoroughly train local staffers in Japanese business customs. Compared to Vietnam, the tendency in Japan is to do things more deliberately over a longer period. While non-Japanese employees may feel that certain processes are largely formalities, I help them understand the importance of these processes.

“Quynh excels at communication, so I am helping her leverage this strength. Also, I have asked her to reach beyond her expertise in steel

scrap to handle raw materials and steel products, which is helping her to upgrade her overall negotiating skills.

“In Vietnam’s fast-developing society, where young people are incredibly motivated to advance their careers, I am trying to create a workplace where such people can improve their skills and feel a sense of satisfaction with their achievements. Being stationed in Vietnam, I also take satisfaction in the country’s progress, so I would like to expand JFE’s business in ways that enable local employees to play even more active roles.”



Strengthening project management through teamwork

Tsutomu Oyama

Project Manager
Yangon Waste Incineration Power Plant Project
JFE Engineering

First waste-incineration power plant in Myanmar

Rapid economic growth in Yangon, the largest city in Myanmar, is creating problems in areas such as increased waste and chronic power outages. Such challenges are being met head-on by a JFE project team led by Tsutomu Oyama.

“JFE Engineering has an extensive track record in the construction of waste-incineration power plants in Japan, as well as various projects within Myanmar. Based on this strong reputation, the city of Yangon asked for our assistance. In return, we were absolutely determined to honor their confidence in us.”

Mr. Oyama, the project manager, embarked upon a plan for a waste-incineration power plant that would be the first of its kind within Myanmar.



The plant was designed to generate approximately 5,200 MWh of power per year and cut CO₂ emissions by roughly 2,400 tons. It was the culmination of JFE's research abilities and a strong local network backed by JFE's technical prowess.

“The biggest obstacle was the construction cost of about 2 billion yen (19.95 million USD), a sum that could not be covered solely by Yangon. We needed to involve Japan's Ministry of the Environment and Myanmar's central government, which required us to go back and forth between the two countries numerous times to explain the significance of our plant.”

After two years of liaison and negotiation, the Myanmar government finally granted a special allocation, and the project eventually got under way.

Mutual trust and respect allowed the team to grow

The project team supporting Mr. Oyama comprises experts in different areas, including design, procurement and construction, all of whom are stationed locally. Backup is being provided by JFE personnel in Japan, including retirees who possess a wealth of experience. Their collective strengths have been combined in a top-notch team to tackle this unprecedented project.

“Once the project got under way, we could hire skilled local personnel because many expert engineers have returned home to Myanmar as a result of the country's democratization. As such, we were



PROFILE

Tsutomu Oyama

Overseas Business Division, Environmental Solutions Sector, JFE Engineering. Joined the company in 2002. Appointed project manager of the Yangon Waste Incineration Power Plant Project in October 2015.

Solidarity

Leveraging transnational solidarity to carry out projects

able to hire people with extensive international experience, including in building and running waste-incineration power plants. These local staffers are now playing active roles not only in technical matters, but communication matters such as meetings and local documentation.”

It's said that the people of Myanmar, after living for many years under a military regime, remain guarded when speaking with foreigners. So having local personnel to participate in meetings helped negotiations proceed smoothly.

“We met with the team countless times to familiarize them with the plan and overall objectives, which helped them move ahead with negotiations. Meanwhile, I learned a lot from them, considering how industrious and ambitious they were. Our relationship was not one of a Japanese manager and local staff. I worked with them as an engineer.”

Mr. Oyama says that the team's solidarity has increased dramatically since the project began. Looking ahead, their challenge now is to help ensure that construction finishes on schedule in 2017.

“If this project is a success, then it's possible that we'll be entrusted with even greater projects in Myanmar. This would surely stand as a major accomplishment for JFE, especially at a time when the company is expanding into other countries. Everyone on the team is working together, ultimately to help broaden JFE's overall business scope.”

We will do our best in this project team

Local staff members
Yangon Waste Incineration
Power Plant Project JFE Engineering



Myo Min

Ingyin Ko Ko

Nyo Yi Thant

Swe Zin Thant

Mr. Oyama kindly instructed us, the technical members, in basic things like documentation, schedule management and business etiquette. He also held frequent meetings so that we could share and discuss any problems that we were facing.

Whereas we tended to get fixated on a single idea, Mr. Oyama would propose several ideas and flexibly guide us towards a solution. A top-down style of business predominates in Myanmar, and workplaces are often shrouded in an insular atmosphere, but the JFE staff

members took the approach of granting us the discretion to make decisions. Also, they worked together with us, which allowed us to go about our work with a sense of satisfaction.

Our greatest happiness is contributing to the development of Myanmar through this project, so it pleases us to know that the completed plant will add to the Yangon cityscape. We all aspire to be project managers like Mr. Oyama someday, and to boost our skills so that we can take on even bigger jobs in the field of infrastructure development.

