

CSR Through Business Activities (1): Metal Products Business Unit

Tubular Business Contributes to Ensuring a Stable Energy Supply

Energy demand is increasing mainly due to global population growth and economic development in emerging countries. While shale gas/oil and other unconventional energy resources are attracting greater attention, there is growing demand for increased production of major energy sources such as oil and natural gas. In the U.S. market, Sumitomo Corporation is the largest supplier of oil country tubular goods (OCTG), which are indispensable for the exploration and drilling of those resources. In addition to a supply of high-quality products, we offer a wide range of solutions which help oil and gas development companies around the world solve their business issues, and ultimately contribute to a stable supply of energy worldwide.



Toshikazu Nambu
Executive Officer
General Manager
Tubular Products Division



* SCM: Supply Chain Management

Building an OCTG value chain ranging from manufacturing to sales in the U.S., which represents about 50% of the world's OCTG trading

Oil and natural gas are major energy sources that support today's society. To extract and use these resources, which exist deep underground, OCTG and other tubular products are indispensable.

Sumitomo Corporation started to sell high-quality Japanese OCTG to U.S.-based oil majors and other clients in the early 1950s, and that export business grew steadily. However, export of OCTG to the U.S. was regulated from the late 1970s to the early 1980s due to trade friction between the two countries. To address the changed business landscape, we started to build a new business model that did not solely depend on export operations. In the late 1980s, we became Japan's first ever trading firm to establish an OCTG distributor in the U.S. and Canada, which sources products in the U.S. and sell them in the U.S., which enabled us to enter the downstream market.

In 2002, acquiring U.S. seamless pipe manufacturer North Star Steel expanded our OCTG business into the upstream area of manufacturing. In addition, we acquired Howco Group, which supplies products and materials to the global gas and oil industry mainly in Europe and North America, in



OCTG in stock

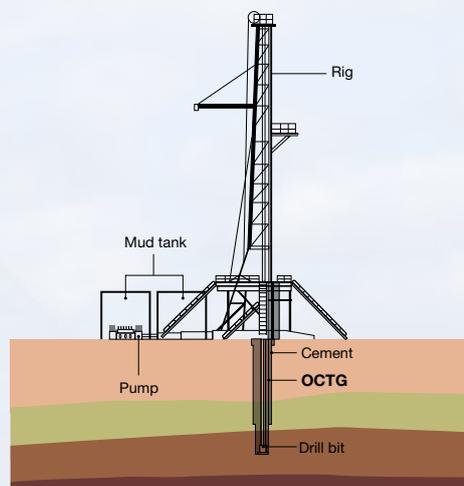
2007 to beef up our service business peripheral to oil well drilling, including OCTG customization and parts supply.

As a result, we have built a powerful value chain of tubular products in the U.S., ranging from manufacturing to processing and sales. With a market share of around 20%, Sumitomo Corporation is the industry leader in this country, the world's largest market, which consumes about 50% of the OCTG distributed worldwide. As the largest OCTG-related company in the U.S., we make a continuous contribution to ensuring a stable supply of energy.

Column

How oil and gas drilling operates

Reservoirs of oil and natural gas are usually located several kilometers underground. Some reservoirs are reached by drilling deeper through the more than 1,000 m-deep seabed, while some are reached by drilling several kilometers vertically into the ground and then horizontally underground. To drill an oil well, the earth is excavated by using a drill bit attached to a tubular pipe called a drill pipe. Then numerous OCTG pipes, each about 12 meters long, are inserted into the drilled hole, jointed in a string to give a total length of several kilometers. Given high temperatures of up to 200°C and high pressures of up to 10 atmospheres underground and the combined weight of the connected tubular pipes reaching 500 to 1,000 tons, OCTG pipes and their accessories need to be highly durable and reliable.





Pipe cutting process at a U.S. seamless steel pipe manufacturing subsidiary

OCTG supply chain management services to reduce the total operating costs

The greatest strength of our OCTG business is our SCM service. Making the most of the value chain we have built, we provide a comprehensive service for the procurement and inventory management of OCTG, which represents more than 10% of the total drilling costs.

In oil well drilling operations, tubular pipes are not used alone. Many accessories, such as the joints that connect two pipes, are also required. Oil and gas development companies need to monitor and forecast the levels of their OCTG and accessories in use and in stock, and continue to purchase additional materials as necessary. Generally, these companies tend to hold higher inventories to cope with potential procurement delays; a delay in or suspension of drilling operations can incur losses of tens of millions to hundreds of

millions of yen per day. It is not unusual to see, as a result of redundant inventories, a large number of pipes left exposed to the weather near a drilling site, unused and deteriorating. Those situations are to be avoided, not only because they have a negative impact on profitability, but also because they are a great hindrance to oil and gas development companies fulfilling their responsibility to ensure a stable energy supply.

To support oil and gas development companies in solving these challenges, Sumitomo Corporation has established an OCTG SCM system, drawing on its value chains in Japan and the U.S., its extensive sales networks covering Europe, Asia, and the Middle East, as well as its original information management know-how. From 1993 onwards, we have been involved in many SCM projects for U.S. oil majors and other customers, offering comprehensive services which include appropriate inventory management, just-in-time product supply, and maintenance and repair, details of which are tailored to suit customers' drilling and operational plans.

Using our proprietary online system to centrally manage the distribution of OCTG around the world

Building upon its successful operations in North America, Sumitomo Corporation introduced its proprietary online system in the late 1990s to offer an even more sophisticated SCM service on a global basis. OCTG pipes often travel along complicated routes. For instance, pipes may be first delivered to the customer's warehouse, then loaded onto a truck to be sent to another factory to be processed to suit the specifications of the oil well, and finally sent back to the

Sumitomo Spirits

Building a global HSE management system to achieve "Zero Harm"

Michael J. O. Pomfret (first on left in the photo)
Global HSE Advisor, Tubular Products Division



Global HSE Managers

In response to the transition from trading OCTG & Line Pipe to providing value added services to the customers in the Supply Chain Management arena, the Management of HSE in SCTPD* was formalized in 2007. At the same time the ZERO HARM slogan was introduced, which was widely communicated with employees carrying a branded wallet card.

The Global HSE Management System which comprises 12 Elements including LEADERSHIP COMMITMENT, RISK IDENTIFICATION, and SAFE WORK RULES & PROCEDURES, was introduced to all the offices and locations where SCTPD had SCM projects from 2008 to 2010.

As the extent of value added services offered by SCTPD increased to include management of Pipeline Coating & Transportation projects and

simultaneously SCTPD increased their oversight of the Subsidiaries' HSE performance so the requirement for additional HSE resources surfaced.

In mid 2011 the concept of a Global HSE Network was introduced with the Regional HSE Managers meeting and communicating regularly to continually improve our HSE performance by supporting our organizations, sharing information, introducing best practices and leveraging our experience and expertise.

Our vision for HSE is for it to be so integrated into our SCTPD culture that it is automatically just part of the way we do things, not something special nor extra.

*SCTPD: Sumitomo Corporation Tubular Products Division



warehouse. Due to this complexity, it was difficult to fully track and manage the status of OCTG with existing information systems. Sumitomo Corporation developed its optimal online OCTG supply chain management system, iTIMS, inspired by supermarket product management systems. Using iTIMS, we can centrally manage all the OCTG and their accessories that our Group handles around the world, enabling precise inventory control and demand forecasting on a global scale.

Setting up an SCM consulting firm to use our abundant expertise in promoting new projects and training local staff

In 2002, Sumitomo Corporation established SC Global Tubular Solutions (SCGTS) in Houston in the U.S., aiming to provide advanced SCM services to its customers around the globe using our proprietary system. Using our experience and expertise in OCTG supply chain management, the new company helps customers launch new SCM projects, upgrade their operations for existing oil well drilling projects, and implement other initiatives.

In addition to the use of iTIMS for the remote management of customers' OCTG demand and inventory statuses worldwide, SCGTS focuses on developing local workers who are engaged in processing, transporting, maintenance services for OCTG, and other field activities at drilling sites. SCGTS's instructors are sent to many oil well drilling sites around the world, providing local staff with technical training as well as instruction on operational safety, environmental conservation, and other issues.

As a result of these efforts, Sumitomo Corporation has successfully expanded its SCM service provision from the U.S. market to West Africa, Russia, India and many other markets worldwide. Currently, the company is engaged in 23 projects in 14 countries. Its SCM service contracts designed to meet inventory optimization and other customer needs are expected to grow in the future, especially given that in recent years,

state-owned oil and gas development companies in the Middle East, Asia, Africa, and other regions as well as private-sector companies are raising their awareness of operational costs, occupational safety, and environmental management.

A total solutions provider who supports oil and gas development

In addition to the optimal management of assets (oil well resources) under SCM contracts, Sumitomo Corporation is currently focusing its efforts on technical consulting for the optimal drilling of oil wells and use of OCTG.

The conditions surrounding oil and gas development projects, such as the reserve amount, depth, temperature, and pressure, differ significantly depending on the location of the drilling site. Therefore, the materials for and methods of processing OCTG need to be selected on a project-by-project basis, and the well needs to be designed individually to suit the drilling environment. To support such technical elements of drilling projects, Sumitomo Corporation added to its group a technical specialty firm that specializes in material selection for OCTG and joints and other technical areas. By selecting optimal tubular materials and oil well design and offering other key services, engineers, who have abundant experience at oil companies or other related firms and who are familiar with the drilling environment in the regions which they are in charge of, provide strong support for the safe and smooth development of our customers' oil wells and production operations.

Sumitomo Corporation will continue to upgrade and expand its SCM services and technical consulting functions and offer one-stop solutions to the various needs of its customers around the world. As a total solutions provider, we will continue to supply high-quality OCTG and help oil and gas development companies solve their business issues, thus contributing to a stable energy supply around the globe.