JXTG NIPPON OIL & ENERGY KIIRE TERMINAL CORPORATION, JAPAN

Key Facts

Company: JXTG Nippon Oil & Energy Kiire Terminal Corporation

Website: www.noe.jxtg-group.co.jp

Industry: Midstream Oil and Gas / Storage

Products Used:

j5 Operations Management Software

THE PROBLEM

JXTG Nippon Oil & Energy Kiire Terminal Corporation was established in 1967 by Japan's largest oil company and operates a world class crude oil terminal. Its activities include crude oil storage, transfer and blending.

Kiire Terminal has 57 tanks containing up to 7,350,000 m3 of crude oil reserves, enabling JXTG Nippon Oil & Energy to respond to unforeseen political, economic and social events.

Many of the Kiire Terminal's veteran operators were approaching retirement. Management was concerned that their expertise should be retained within the company and transferred to the new operations personnel with technology that would appeal to a younger generation.

They wanted to achieve a rigorous Plan-Do-Check-Act (PDCA) cycle of continuous innovation and needed systems that would support this cycle of learning and incremental improvement.

They needed a comprehensive, integrated operations management system to improve systems such as event logging, shift handover, work instructions, inspection rounds, near misses, abnormal events, DCS limit changes, asset maintenance and reports.

They saw the need to improve data visibility and communication between operations teams and other business units.

Finally, they wanted to unlock the potential benefits of the OSIsoft PI System® by automating reporting and event management.

HOW j5 OPERATIONS MANAGEMENT SOFTWARE PROVIDED THE SOLUTION

Since 2014, the following j5 Applications were implemented at Kiire Terminal in four phases: j5 Operations Logbook, j5 Shift Handover, j5 Work Instructions, j5 Standing Orders, j5 Inspection Rounds, j5 Incident Management and j5 Event Manager.

j5 Shift Handover produces reports for operators and supervisors with relevant data, events and instructions for each unit and area of the operation from the OSIsoft PI System, j5 Operations Logbook and other j5 Applications. This ensures that a consistent, visible and accountable process is followed.

j5 Work Instructions enables planners to schedule ad hoc and recurring tasks for the operations team members. Tasks are marked off as complete and summarised in j5 Shift Handover.

j5 Inspection Rounds facilitates the recording of plant data from the field. Inspection Rounds are designed in j5 Operations Management Software in the control room, uploaded to a mobile device, completed by the field operators and then synchronised. Round information is readily available for analysis and reports. Anomalies are highlighted.

j5 Standing Orders allows for the controlled dissemination of important communications within the facility.

j5 Incident Management provides a platform on which all near misses and incidents occurring on the plant are recorded, investigated, analyzed and reported.

j5 Event Manager monitors the OSIsoft PI System Tags for anomalies. j5 Operations Logbook entries are automatically created and followed up by operators.

Custom j5 applications and their associated reports were also delivered to monitor tank levels, manage changes to operating limits, report issues related to assets and generate work requests.

CUSTOMER TESTIMONIAL

"We selected j5 as our standard Kiire Terminal tool for solving our past operations management issues, and we are now achieving increased competitiveness."

— **Yukichi Tanaka**
Planning and Coordination Group at Kiire Terminal

BENEFITS OF j5 OPERATIONS MANAGEMENT SOFTWARE

j5 Operations Management Software makes important shift, inspection round, personnel, safety, maintenance and process data visible to the whole Kiire Terminal team. This fosters greater understanding, coordination, knowledge transfer, communication between teams and improves decision-making.

Role-based workflows (for example for j5 Shift Handover, j5 Incident Management and j5 Work Instructions) improve efficiency, safety and follow-through.

j5 Operations Management Software facilitates a Plan-Do-Check-Act cycle of continuous innovation by bringing consistency to work processes and making the right information available. As requirements evolve, it is easy to add and adapt new j5 applications, whether custom or packaged.

j5 Operations Management Software saves time preparing reports and extracting data. Accuracy is improved through interfacing with the OSIsoft PI System.

j5 applications provide a consistent, intuitive user interface, unifying and simplifying the management of operations. The simplicity, comprehensiveness and unity of the j5 Operations Management Software architecture also make it reliable and cost-effective to maintain.

ABOUT HEXAGON

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build, and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.