Singapore LNG Corporation

Key Facts

Company: Singapore LNG

Corporation

Website: www.slng.com.sg

Industry: Liquefied Natural Gas (LNG)

Products Used:

- j5 Operations Management Solutions

More than 95% of Singapore's electricity is generated using imported natural gas. Before the SLNG terminal came into being, Singapore's only option was to import natural gas via pipelines from Malaysia and Indonesia.

The SLNG terminal is therefore critical to Singapore's energy security, as it allows the country to import natural gas from anywhere in the world.

The Problem

The requirements for the new SLNG terminal were substantial and diverse. In a context of demanding deadlines for the launch of the terminal, strict safety regulations and budget constraints, SLNG needed a software system to meet operations, process safety and compliance requirements including:

- A secure and professional operations logbook and shift handover application for managing operational and maintenance records of activities and personnel

- A rigorous permit to work application to facilitate safety

- A ship unloading application to manage the delivery of LNG from the ships

- A sendout management application for managing outward delivery to the main pipelines

- A comprehensive management of change (MOC) application so that changes to the plant's operations would be carried out according to strict procedures

- A comprehensive incident management application to record and learn from every incident and near miss that would occur

- A compliance management application to help achieve legal and regulatory compliance, and to submit required reports to state and corporate authorities

SLNG required that these applications would interact seamlessly with each other, and with other plant software in order to eliminate human error and the double capture of information, for example in relation to:

- Asset information, work notifications and work orders, as maintained in their CMMS, which is IBM Maximo®

- User names and passwords, as maintained in the active directory

- Reliability system information

- Production planning system data

How j5 Operations Management Solutions Solved the Problem

j5 Operations Management Solutions were selected to address SLNG's strict regulatory and safety requirements:

- Incidents and near misses are tracked and managed by **j5 Incident Management**, all the way from their recording and investigation to regulatory reports

- **j5 Management of Change** manages MOCs of different types and sizes through successive stages from the origination of the MOC through to commissioning

- **j5 Control of Work** ensures that the correct procedures are carried out for issuing work permits and managing the work on site

Other custom j5 applications were tailored to the expressed needs of SLNG:

- **j5 Ship Unloading**, which manages all the steps in the unloading process, from the ship arrival to its departure

- **j5 Sendout Management**, which manages outward deliveries of LNG, including the validation of planned versus actual quantities shipped

These j5 applications operate seamlessly in a unified, web browser-based user interface powered from a single, central server. The suite can be accessed from any web browser that is connected to the site's LAN. j5 Operations Management Solutions interface seamlessly with third-party software where required, such as IBM Maximo.

j5 Operations Management Solutions were delivered in time for the first shipment of LNG, and within budget.

Benefits of j5 Operations Management Solutions

j5 Operations Management Solutions have provided a comprehensive, unified suite of operations, process safety and compliance management applications. The user interface for all these applications is both consistent and intuitive.

All the j5 applications have been configured to align closely with the SLNG plant's unique requirements and their flexibility allows this configuration to be improved over time.

j5 Operations Management Solutions make the correct plant information readily visible to any plant personnel, including operators, supervisors, maintenance teams, HSE officials and management.

The j5 applications have automated routine tasks, processes and reports, reducing the risk of errors, accidents and losses arising from human error, saving time and reducing costs (for example the validation of planned versus actual quantities delivered).

j5 Operations Management Solutions have a simple, client-server architecture and is supplied by a single vendor, which translates into lower maintenance costs and improved system reliability.

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.

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.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.9bn EUR. Learn more at hexagon.com and follow us @HexagonAB.