

INPEX

The Objectives

- Unification and standardization of the INPEX operation management system
- Improvement of know-how

The Benefits

- Improved logging, shift handover, and work descriptions
- Consistent, rapid and reliable shift handover
- Established PDCA cycle (from work descriptions to reports)
- Flexible interface with associated operational sections using visualization tools
- Accumulated of knowledge
- Production efficiency improvements
- Site-wide consistency
- Standard user-interface for all applications
- Continuous adaptation and extension of j5 suite
- Simplicity of architecture



Case Study

Introduction to INPEX CORPORATION

INPEX is Japan's largest oil and gas exploration and production (E&P) company and is involved in approximately 70 projects in more than 20 countries.

INPEX proactively undertakes exploration, development and production activities in order to contribute to a stable and efficient energy supply as well as global economic growth and social development.

The Ichthys LNG Project in Australia is one of INPEX's key initiatives and a symbol of the company's proactive engagement in oil and gas projects outside of Japan.

In addition to strengthening its gas supply chain and globalizing its gas business, INPEX is working diligently to improve its asset operations in Japan.

The Issue

In 2012, INPEX sought to adopt an electronic Shift Handover System in time for the operational startup of the Naoetsu LNG Terminal, an LNG receiving terminal that commenced operations in 2013. The company also sought to replace the paper-based Shift Handover System adopted at its existing oil terminals, oil and gas production facilities and valve stations installed on natural gas trunk pipelines.

The challenges posed by the paper-based Shift Handover System were as follows:

- It was a challenge to standardize work descriptions in the paper-based logbooks, because certain sections of the logbooks required free-text entries, which resulted in discrepant details.
- It was time consuming to search for information and it was also difficult to share information across the different sites involved in gas production activities and services.
- It was difficult to ensure consistency in how each activity including planning, logging, reporting, analysis and improvement was presented at shift handovers across the different sites.

After a thorough evaluation process, INPEX selected the j5 system as a solution.

How j5 International Provided the Solution

The **j5 Operations Logbook** ensures that all work activities are entered as and when they occur at every INPEX site. The j5 Operations Logbook builds a comprehensive record of activities that are categorized by specific operational areas to ease sorting and reporting. This information is automatically collected and presented in the Shift Handover Report.

The **j5 Shift Handover** system provides individual handover reports for operators, console operators and supervisors. The handover system follows a strict procedure to ensure consistency of operations.

The **j5 Work Instructions** module provides a framework for the planning, creation, execution and reporting of work activities. Using this system, many diverse instructions are handled efficiently across all the sites enabling them to strictly adhere to the PDCA (Plan Do Check Act) cycle.

The **j5 Work Scheduling** module ensures that work activities are carried out at regularly (e.g. every 24 hours) or follow a specific schedule (e.g. on the first Monday of the month).

Benefits of j5

Shift Handover: j5 ensures that all work activities are carried out consistently and are provided with relevant data in every shift across all operations.

This leads to significant benefits such as avoiding misunderstandings and incidents, improving planning and production efficiency, enhancing the transfer of knowledge and promoting communication and teamwork.

Work Descriptions: j5 enforces a functional and efficient PDCA work management system across all divisions and sites. j5 offers considerable benefits including:

- Improved overview of descriptions
- Improved execution of work activities through to completion
- Reduced processing (through the use of templates)
- Improved overview of tasks
- Quick identification of challenging or incomplete tasks
- Improved coordination between workers
- Consistent logging of activities for future optimization
- Quicker feedback on the progress of activities, etc.



“The introduction of j5 at INPEX helped improve and enhance operation management efficiency. j5 has contributed to the efficient and stable operation of INPEX assets. Information is standardized and accurate and therefore easier to retrieve. We plan to introduce new operational improvement applications in the near future.”

Jinsei Li
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INPEX CORPORATION



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