



CUSTOMER CASE STUDY

LNG Commissioning Data Integrity and SIS Alignment

BKOAI built a unified asset registry and aligned SIS tags across engineering and operations systems, improving data integrity, safety compliance, and readiness for the facility's first cooldown cargo

Solution: Unified Asset Registry & SIS Alignment

Industry: LNG

Use Case Focus: Commissioning Data Integrity

GOALS

- Establish data integrity across all safety-critical facility systems.
- Accelerate readiness for the first LNG gas cooldown cargo.
- Ensure SIS tags remain aligned across engineering and operational databases.
- Create a reliable data foundation for safe LNG production startup.

SOLUTIONS

- Built a centralized asset registry capturing all equipment and SIS tags.
- Synchronized safety-critical SIS tags across engineering and operational systems.
- Implemented integrity validation to confirm alignment between design documents and live systems.
- Established a structured verification process to reduce redundant manual checks.

CHALLENGES

- Dispersed equipment and SIS tags across multiple systems created inconsistencies.
- High risk of safety compromises and startup delays due to database misalignment.
- Engineers lacked a centralized registry for thousands of instruments and components.
- Manual verification processes were time-consuming and prone to human error.

RESULTS

- Achieved rapid operational readiness for the first LNG cooldown cargo.
- Reduced SIS misconfiguration risks, ensuring stronger safety compliance.
- Eliminated redundant manual checks, accelerating the commissioning timeline.
- Improved data accuracy and reduced human error across the startup process.

EXECUTIVE SUMMARY

BKOAI built a unified asset registry and aligned SIS tags across engineering and operations systems to improve data integrity, safety compliance, and readiness for the facility's first cooldown cargo. The project addressed dispersed equipment records, database misalignment, and the lack of a centralized registry for thousands of instruments and components. By centralizing asset data, synchronizing SIS tags, validating integrity between design documents and live systems, and structuring verification, the team reduced manual effort and improved startup readiness.

Centralizing Safety-Critical Asset Data

Before commissioning, equipment records and SIS tags were dispersed across multiple systems, creating inconsistencies and making it difficult for engineers to manage thousands of instruments and components. BKOAI built a centralized asset registry to capture all equipment and SIS tags in one structured source of truth.

Aligning Engineering and Operational Systems

Database misalignment created a high risk of safety compromises and startup delays. To address this, the team synchronized safety-critical SIS tags across engineering and operational systems and implemented integrity validation to confirm alignment between design documents and live systems.

Accelerating Commissioning Readiness

Manual verification processes were time-consuming and prone to human error. BKOAI established a structured verification process to reduce redundant manual checks, which improved data accuracy, reduced human error, strengthened safety compliance, and accelerated readiness for the first LNG cooldown cargo.