



APA

Safeguarding Western Australia's Gas Supply

As the only commercial facility of its kind in Western Australia, the Mondarra Gas Storage Facility (MGSF) is absolutely vital. For this reason, operator APA Group turned to HIMA Consulting Australia for functional safety management consulting, SIL assessments, and training workshops.

The state of Western Australia is heavily reliant on continuous gas supply for its industrial and manufacturing sector, residential use, and electricity generation. Any loss of gas supply will have serious economic, security, and social consequences. The MGSF in Western Australia plays a crucial role in mitigating the effects of any disruption to the supply of natural gas. As the owner and operator of this facility, APA Group is responsible for ensuring that safety standards are maintained at all times.

Securing a World-Class Gas Storage Facility

In order to ensure energy security, the MGSF was expanded in 2013. Additions included new wells, a compressor facility, a gas treatment plant, and all supporting infrastructure. This major expansion not only enlarged the facility's capacity significantly, but also increased process complexity. Accordingly, APA embarked on a journey of safety assurance audits, supported by HIMA safety specialists.

Industry

Gas transmission and distribution

Headquarters

Sydney, Australia

Description

Australia's largest natural gas infrastructure business, managing and operating numerous pipelines and grids

Revenue

AUD 2.3 billion

Employees

1,600



2 customized onsite training sessions

SUCCESS STORY

"The MGSF contains a number of complex processes that are mission-critical," says Jamie Hudson, principal safety and risk engineer at HIMA. "Before we provided consultation, we had to begin the preparation to understand fully the operations and systems of the facility." After an in-depth study and analysis, HIMA established a framework to meet both the strictest safety requirements and industry best practices.

A Comprehensive Safety Structure

HIMA's services included an assessment of the functional safety systems and procedures used during the facility's upgrade in order to identify opportunities for improvement. To ensure regulatory compliance, it was also necessary to provide assurance that functional safety had been achieved at the facility and to develop well-documented plans and procedures.

To accomplish this, HIMA conducted a series of functional safety activities, including training, SIL assessments, SIL verification, and operations and maintenance plans for safety instrumented systems. Hudson explains, "During training and consultation, we analyzed and audited safety management systems, plant processes, and procedures across the complete lifecycle to ensure that APA achieved maximum functional safety."

HIMA used the layers of protection analysis (LOPA) technique, an objective form of risk assessment to facilitate compliance with regulations and standards. LOPA helped APA to evaluate risk scenarios, identify gaps, and take specific corrective actions.

"Because our approach is very practical and hands-on, the participants saw the value we could add to help them do a better job. The feedback from all participants was great, and they hope to attend our courses in the future."

Jamie Hudson

Principal Safety & Risk Engineer, HIMA Group

Customized Training: A Platform for the Future

Finally, HIMA hosted two customized interactive training sessions onsite at MGSF and developed LOPA worksheets tailored to APA's needs. These allow safety, financial, and environmental factors to be captured on a single page, keeping documentation clear, concise, and easy to disseminate. Thanks to HIMA's consulting and safety services, APA now has a solid foundation for its future projects.

Challenges

- Ensure that functional safety management systems are robust, effective, and aligned with industry best practices
- Establish and implement a framework to meet the strictest legislative requirements

Why HIMA?

- One of the few TÜV-certified functional safety consultants
- Unique and refined consulting approach tailored to the client's specific needs
- Practical, hands-on methodology, offering maximum efficiency

Benefits

- Achieved maximum functional safety for all systems in the facility
- Enhanced staff safety, plant integrity, and productivity
- Complies with all the strictest standards and regulations
- Provided a blueprint for future planned projects

HIMA Products and Services

- SIL assessments
- SIL verification
- Functional Safety Assessment (FSA)
- Customized training for operators and maintenance staff