

Optimising gas metering and pressure reduction for a leading salt business

Managing stakeholders to deliver new gas metering and pressure reduction skid

Background

A leading salt business within the chemicals industry, with a strategic national importance and a focus on the production of chlorine, caustic soda, chlorinated derivatives, sulphur chemicals, and salt for industrial customers.

The production site, one of the largest in Europe, is located in Weston Point, Runcorn, Cheshire, covering approximately 15 acres.

The brief

The existing gas metering and pressure reduction skid at the Runcorn site was oversized and unable to accurately measure gas flow to the plant. This inefficiency posed potential risks to production accuracy and energy management.

The project aimed to address this issue by designing and installing a new purpose-built skid capable of reducing pressure to 1.5 barg, accurately measuring gas flow, providing overpressure protection, and supplying up to 3 MW of gas to the salt plant.

The project

The project involved multiple stakeholders and was divided into several key responsibilities. This included the design, procurement, and delivery of the new high pressure module, decommissioning of the existing module, installation and testing of new equipment, E&I design and commissioning, and management of the downstream system.

This comprehensive approach ensured that all aspects of the gas management system were addressed.





Skid reduces gas pressure to 1.5 barg



Improved accuracy of gas flow measurement



Peak hourly load of 211 sm³/hr

Challenges

The project faced challenges due to the strict internal procedures and permitting system at the top-tier COMAH site, leading to frequent delays in on-site projects. Additionally, due to the complex nature of the project the team needed to manage varying expectations.

A key challenge in this project was managing four stakeholders, ensuring that everything was coordinated and communicated effectively.

Furthermore, labour constraints and commissioning delays were mitigated by allocating additional resources and implementing enhanced management processes.

Outcomes

Despite the challenges, the project successfully installed and commissioned the new gas metering and pressure reduction skid. This resulted in improved accuracy of gas flow measurement and enhanced overall efficiency of the Salt plant's gas management system.

The team's ability to navigate complex issues strengthened relationships with clients and contractors while gaining valuable knowledge in E&I design and construction.

Next steps

Moving forward, the team plans to implement shared inspection and maintenance programs, replace any identified faulty components, and complete the commissioning of telemetry units.

A senior management site visit is scheduled to review the project's success and discuss future opportunities for improvement and collaboration.



To discuss how we can assist you with your metering, contact one of the team at

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