



CASE STUDY | PROJECT OF THE YEAR WINNER

Success Through Collaboration and Planning Excellence

Delivering Value-Enhancing Practice with ECI-ACTIVE

In 2010 PROJEN were appointed to conduct a Front End Engineering Design study. Following Board Sanction of the full project in 2011, the execution programme was to commission a new burner to coincide with the completion of a planned plant shutdown in October 2012.

PROJEN were engaged on a collaborative bespoke EPCM contract, which included an equitable pain/gain mechanism designed to align the objectives with a high emphasis on SHEQ performance. The project was completed to the mutual satisfaction of both parties with an impeccable safety record.

All key project team members from across the supply chain were involved from the outset. The result of early involvement and collaboration was the development of critical documents, such as a clear User Requirements Specification, Agreed Project Objectives and Scope document, plus a detailed Assignment Execution Plan. An integrated project team, established at an early stage, included all those deemed as project critical suppliers, while **non-adversarial** NEC3 contracts were used to fully engage sub-contractors.

An important role on the project team was covered by the **client Project Sponsor**, who was responsible for chairing Project Steering Committee meetings throughout the project life cycle. The full-time PROJEN project manager was appointed at the start of the FEED Study and continued through to the final handover of the project.

Formal **Client and Design Kick-Off meetings** ensured the project started effectively, with roles and responsibilities clearly designed, understood and documented, supported by an Organisational Chart and RACI matrix. Effective stakeholder management was given a high priority throughout, with a full schedule of meetings established and maintained to ensure project objectives were shared and aligned.



PROJEN and Cabot worked with a collaborative, bespoke EPCM contract to deliver a complex project in a restricted space, right in the center of an operating chemical site. The final deliverables of project cost, schedule and quality were achieved to the satisfaction of both parties with an overall impeccable safety record achieved over 90,000 man hours of work.

Richard Anderton
General Manager - Cabot Carbon



PROJECT TITLE

Fumed Silica Expansion Project

LOCATION

Barry, South Wales

PROJECT DURATION

58 weeks

VALUE

£12 million

COMPANIES INVOLVED

ECI Member

PROJEN

Client

Cabot Corporation

Subcontractors

- Clancy Consulting
- Hewlett
- Laker Vent Engineering Ltd
- Lectec Services
- Lyndon Scaffolding plc
- Green Contract Services

PROJECT OVERVIEW

The objective was to design and build a fumed silica burner train, increasing capacity by 25%.

PROJEN's Scope of Work included full detailed design, plus specification of equipment and the project execution for:

- Burner/Cooling tube layout including PED clarification
- Main Unit Filter
- Feedstock, Air and Hydrogen supplies
- Environmental Emissions Abatement
- Process Utilities
- DCS migration from legacy system

A **safety incentive scheme** was introduced to promote safety, encouraging contributions from the key suppliers and also sub-contract organisations. Throughout the project, supply chain partners attended regular review meetings to ensure overall alignment of project objectives. Technical Query and Early Warning Systems were used to **formalise and increase the efficiency of communications**.

Information requirements, documentation and file formats were agreed early-on, and a document distribution register employed to define communication requirements and responsibilities. Risks that arose from formal project risk assessments and registers and were deemed unacceptable were **assigned to, and actioned by, the most appropriate organisation** to manage them.

Performance was measured at weekly progress meetings, and throughout the project lifecycle at Steering Committee meetings and through **benchmarking against the ACTIVE Principles and reviews**. An open approach to challenges from stakeholders was adopted and encouraged. Logs of improvement opportunities were recorded across the project to enable integration with the Close-Out Review and Lessons Learned exercises.

A high emphasis was placed on the Safety, Health and Environmental performance of the project with over 90,000 man hours recorded without a single reportable accident or incident. Underpinning this success was the **behavioural safety training** provided for all those engaged on the project.

The resulting project was delivered within 2 weeks of the original 58 week programme. It was successfully commissioned and put into full production with the expected capacity and product quality targets met within days of start-up. This was in-line with the key project objectives and critical success factors, which included:

- Zero reportable accidents/incidents.
- 25% increase in production capacity.
- Project delivery within the agreed overall Target Cost.
- Handover within the target month specified.
- Full handover of project documentation within 30 days of 'mechanical completion'.



It is a great honour and is testimony to the efforts and hard work of PROJEN's employees to maintain our exceptional health and safety record and professional culture and approach- as true followers of the ECI's Eight Active Principles.

PROJEN's key business driver is working with clients who share our business culture and Cabot's willingness to endorse a true teamwork approach on this project has promoted the innovation and ownership that is needed to deliver this project.

Martin Seabrook

Managing Director - PROJEN PLC



For further information on this project and the individuals involved, please contact the ECI Head Office on **+44(0)1509 222 620** or email eci@lboro.ac.uk



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