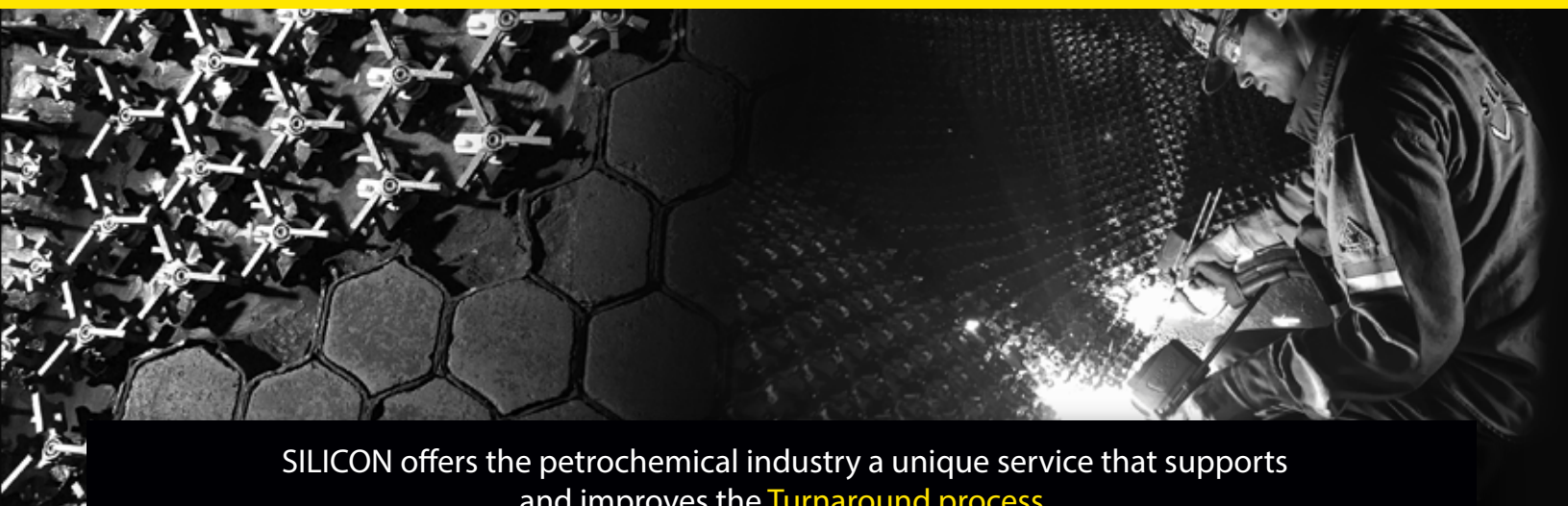


Pre-Turnaround Service:

Review - Planning - Quality Control



SILICON offers the petrochemical industry a unique service that supports and improves the **Turnaround process**.

Time is often consumed by deliberation and decision making of how to solve the issues that are discovered during the Turnaround. Getting the right people together in the same shift can also be a bottleneck in itself, even before any meeting is scheduled.

Because of this, SILICON is focused on offering the petrochemical industry a turnkey solution for refractory anchoring systems and Rapid Arc Welding technology. In order to properly support a scheduled or unscheduled Turnaround, SILICON offers the following services which should be part of any Turnaround budget. Experience has shown that such support drastically streamlines the Turnaround process and more attention can be given to the more critical areas.

1. Pre-Turnaround Review

SILICON's SMEs will review all drawings of FCC components, sub-components, and anchor specifications that are planned for work. During this review, the following items will be recommended:

- Anchor types
- Alloy types, both single and dual alloys
- Anchor quantities
- Review all WPS/PQR weld procedures

2. Discovery Planning

For potential discovery areas, SILICON can design pre-agreed anchoring solutions to avoid time consuming decision making and allowing for a smooth flow of the Turnaround. These can normally be made very quickly during the Turnaround itself.

3. SILICON Quality Control Technicians

Based on the scope of work for the Turnaround, SILICON will recommend the number of Quality Control Technicians, (QCT's) required for the project and number of days they should be on site.

4. Emergency Turnaround Services

- Dedicated line to our specialists for high quality urgent repairs
- Targeted consultations to mitigate future problems
- Priority manufacturing and shipping of refractory anchors and immediate mobilization of operators.

A pre-turnaround meeting should be held no later than 6 months prior to the planned Turnaround so that all anchors can be produced and shipped to the SILICON warehouse for staging. One month prior to oil-out, a follow up meeting should take place to identify any last minute changes or revisions.