

Fired Heater Case Study

Adding Value with Strategic Partnerships

In today's fiercely competitive industry, clients are often inundated with contractors touting various special offers, introductory incentives and seemingly attractive cost-saving measures. However, choosing a contractor based solely on the lowest bid for individual projects can often lead to unforeseen expenses that far outweigh any perceived initial savings. The frequent switch between contractors often results in a lack of continuity, inefficiencies and increased overall costs.

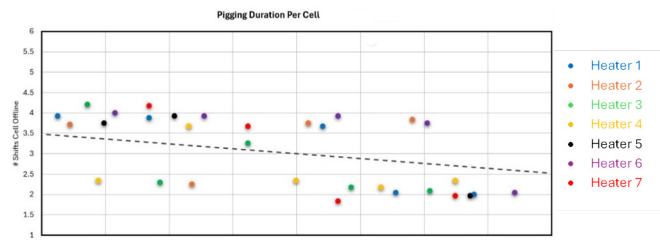
At HPC Industrial, we adopt a distinct approach that emphasizes long-term value and strategic partnerships over transient, headline-grabbing savings. Our extensive industry experience and management expertise enable us to partner closely with clients, delivering superior service and optimizing on-site performance. A prime example of this approach is demonstrated through a recent pigging project with a client in our Fired Heater and Pipeline division.

Our Approach

In contrast to the reactive methods commonly employed by other contractors, HPC's team engaged in meticulous pre-planning and thorough analysis well before the project commenced on-site. This proactive strategy aimed to address potential issues before they could impact performance, ensuring a more efficient and cost-effective operation.

Our comprehensive strategy included the following key components:

- **Data Monitoring and Analysis:** Heater data provided by the client was meticulously recorded with multiple data points related to the heater's performance throughout its operational cycle. This data collection was crucial in forecasting potential fouling issues and other performance metrics.
- **Predictive Forecasting:** Through heater familiarization, our analysis extended to forecasting expected fouling levels, determining appropriate pig sizing, hardness, and pin requirements. We used this and the collected data to estimate the number of decoking runs necessary and assess critical factors such as coke hardness, density and susceptibility to collapse.
- **Efficiency Review:** In addition to the technical aspects, we evaluated and optimized several efficiency factors including heater handover timing, setup procedures, changeover processes and breakdown procedures. This comprehensive review helped streamline operations and reduce unnecessary delays.



Results and Benefits

The results of our approach were extensive. By closely collaborating with the client and engaging in thorough pre-planning, we achieved a significant reduction in downtime associated with decoking operations. The streamlining of communications before taking the heater offline led to considerable time savings from handover to the initiation of the decoking process.

Our comprehensive understanding of the heater's unique characteristics enabled us to refine best practices in decoking. This included optimizing pig size changeout frequencies, adjusting the number of runs per size and proactively addressing risks associated with coke collapse including how best to recognize "elevated risk" and what actions and support HPC could have in place should the event ever occur.

Looking at the downtime for a coker operating at an average 40,000 barrels per day, our efforts led to a twelve-hour reduction in time per cell, translating into impressive cost savings in the region of \$150,000 per decoking event. This substantial financial benefit far exceeds any minimal cost advantage that can be offered by introductory bids from competitors.

Optimized Performance, Exceptional Results

This case study illustrates the tangible benefits of partnering with HPC for fired heater and pipeline operations. Our data-driven approach and thorough understanding of the intricacies of fired heaters underscore the value of long-term strategic partnerships. By leveraging our industry leading experience and resources, HPC delivers solutions that not only meet but often exceed client expectations. Our commitment to long-term value and excellence demonstrates that true benefits and cost savings are realized through enduring partnerships rather than short-term, superficial savings.

Choosing HPC means opting for a partner dedicated to optimizing performance and delivering exceptional results, showcasing that true value lies in fostering and maintaining strategic, long-term relationships.