Integrated Service Approach Results in Significant Cost Savings

Overview
Through our integrated service approach, TEAM provided cross-trained and highly-skilled technicians to assist with complementary tasks during a major turnaround. Due to the use of a blended crew, man hours were reduced and a significant cost savings achieved without sacrificing safety.

Project
Mechanical, inspection, and heat-treating services support a major turnaround effort

The Need and Challenge
A major operator was in need of mechanical, inspection, and heat-treating services to support a large turnaround effort at one if its integrated hydrocarbon processing complexes during peak season when resources were strained.

Solution and Outcome
The culture of TEAM is to supply the highest level of service to its customer through long established processes and procedures that allow for greater efficiencies related to executing services. TEAM’s initiative from the onset was to perform services with cross trained personnel and to provide savings for the operator with centralized coordination of services for the scope of work.

Prior to commencing work, a TEAM planner came on site pre-shutdown to participate in pre-meetings on scope and to evaluate additional equipment that may be required. TEAM placed equipment on site to increase productivity based on knowledge of the site.
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Solution and Outcome
During the turnaround, skilled line isolation technicians helped on synergistic tasks. High-level line isolation technicians were cross-trained to assist high-level heat treatment technicians and high-level line isolation/weld test technicians were cross-trained to assist multi-certified NDE technicians.

This approach ensured highly-specialized technicians were not sitting idle waiting on other vendors to complete a task or service but instead were fully utilized. One TEAM technician provided services traditionally performed by 2 or 3 individuals. Utilizing cross trained personnel for multiple tasks played a key role in minimizing manpower levels.

Analysis of a 15 sequential cut pipe job utilizing the blended crew during the turnaround project compared to traditional multi-contractor crews revealed:

+ Reduced durations and man-hours due to single accountability and communication / direction
+ Fewer overhead / indirect hours required, therefore reducing the daily / shift headcount
+ 75% lower overhead / indirect costs versus using multiple vendors based on a punch list review

<table>
<thead>
<tr>
<th></th>
<th>Blended Crew</th>
<th>Multiple Vendors Contracted</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Duration</td>
<td>46 Days</td>
<td>52 Days</td>
<td>12%</td>
</tr>
<tr>
<td>QC / QA Reports</td>
<td>One Source</td>
<td>Four Sources</td>
<td>75%</td>
</tr>
<tr>
<td>Hours Billed</td>
<td>1,245</td>
<td>1,797</td>
<td>31%</td>
</tr>
<tr>
<td>Per Diem / Lodging Days</td>
<td>237</td>
<td>432</td>
<td>46%</td>
</tr>
<tr>
<td>Purchase Orders</td>
<td>One</td>
<td>Four</td>
<td>75%</td>
</tr>
<tr>
<td>Supervisors</td>
<td>One</td>
<td>Four</td>
<td>75%</td>
</tr>
<tr>
<td>Time on Tools</td>
<td>Continuous</td>
<td>Three Crew Change Out Per Joint</td>
<td>—</td>
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</tbody>
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Additionally, the operator realized a reduction in labor costs associated with shared resources under one contract for the following positions:

Safety – Total savings per Shutdown $167,081.00
Tool Crib – Total savings per Shutdown $119,290.00
QA/QC – Total savings per Shutdown $202,565.00
Clerk – Total savings per Shutdown $22,942.50

All in all, utilizing an integrated service approach, TEAM helped the operator realize a total cost savings of $535,607.97 during its turnaround.