

Getting maximum hydroprocessing unit performance with minimum investment calls for experienced engineers, well-defined survey objectives, focused efforts, and a tight timeline.



Call on us.

Achieving multi-million dollar results does not need to cost millions of dollars in consulting fees. It just takes a focused effort by experienced Carmagen engineers – engineers who have done this before and know how to achieve maximum results from your investment.

Objective





The objective is to identify operational changes and low cost, high impact projects to achieve world-class hydroprocessing unit performance excellence. The specific objectives of the surveys are always set consistent with the requirements of refinery management.

Units Included in Surveys

Hydroprocessing units treating alkylation plant feeds, reformer feeds, jet kerosene, diesel, heating oil, atmospheric and vacuum residua, and FCC feeds; hydrocracking units; and all other fixed-bed hydrotreating units.

Survey Methodology

A small team of Carmagen Engineering, Inc. process and engineering technology specialists together with the refinery-designated contacts conduct a site survey. The survey builds on existing information such as equipment drawings, maintenance history, operational and reliability issues, catalyst performance data, hydrogen balances, and focuses on the following areas:

-  Product yield and quality improvements and low cost capacity expansion opportunities.
-  Operating cost reduction – hydrogen consumption, catalyst selection and replacement frequency, energy conservation opportunities, etc.
-  Reliability improvement – equipment fouling mitigation, catalyst contacting efficiency, hot spots, unit performance monitoring, etc.
-  Inter-process synergies – opportunities for optimizing FCCU and FCCU feed pretreatment operations, reformer and reformer feed pretreatment operations, etc.






All the right people in all the right places.™

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Survey Results

A close out presentation is made to refinery management for final acceptance of the survey results. Final documentation of the results follows shortly thereafter and typically includes the following:

-  Specific action plans to implement improvements in product yields and qualities, including improvement targets and measures of success. Low cost capacity expansion opportunities.
-  Highest pay-out operating cost reduction opportunities including priority action plans.
-  Short-term and long-term steps for improving operations, reliability and maintenance. Specific hardware items where upgrades would be beneficial.
-  A strategy for capturing inter-process synergies.
-  Areas where Carmagen Engineering, Inc. could further contribute to hydroprocessing profitability.

Survey Cost

The cost depends on the number and complexity of the hydroprocessing units to be surveyed. Generally, a two-week site visit is sufficient to achieve the survey objectives. We will work within your budget to ensure maximum results with minimum investment.

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