



Oil and Gas Company

A Rapid Solution Preserves Revenue & Reduces Costs

SCORECARD

- A recurring problem was eliminated by finding true cause and taking appropriate action
- Rapid resolution minimized lost revenues that could quickly surpass \$1 million
- A new maintenance process reduced bearing replacement costs by \$75,000

An initiative to control costs at this multibillion-dollar company's refineries and petrochemical plants included a management program designed to build issue resolution skills and embed a common problem solving process. The organization wanted to improve its effectiveness at performing root cause analysis and preventing recurring problems. Managers and engineers received Kepner-Tregoe (KT) Problem Solving and Decision Making training and began integrating the KT approach into issue resolution and improvement initiatives.

CHALLENGE: The opportunity to use the new KT approach arose at a plant when a recurring overheating problem developed in a compressor that fluidizes Cu-Al catalyst inside a reactor and recycles unconverted gases. The compressor was shutdown as a safety measure while the overheating problem was resolved.

SOLUTION: The troubleshooting team used KT Problem Analysis to focus on the relevant data. This revealed that a faulty bearing had caused the overheating. In the past, the preliminary response was to replace the dry gas seal, a \$75,000 process. This time, the team took only the necessary actions and used a new process to replace only the \$7,500 bearing. In addition, the team determined that bearing reliability is not only a function of bearing quality but also of bearing orientation within the compressor.

RESULTS: The compressor was brought online quickly, minimizing expensive downtime. Shutdowns can quickly reach \$1 million in lost revenues. This was the first of many successful applications of KT process that have proved valuable in avoiding costly recurring problems, pursuing ongoing improvements and making cost-saving modifications.

"The KT process tools allow for the effective management of available data in an orderly fashion. Only relevant data gets into the analysis, lengthy meetings are avoided, problems are solved more quickly, and it requires less manpower to do the analysis."

— Kepner-Tregoe Program Leader, Multibillion-Dollar Energy Company