

Meeting the Clean Fuels Challenge Requires More than Technology

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Prepared for presentation at the NPRA Clean Fuels Challenge

August 28, 2001 Houston, Texas

Published in Hydrocarbon Processing, February 2002

The clean fuels challenge is like no other challenge faced by the refining industry. It has the potential to be very costly, is extremely complex, cannot be solved by technology alone, and will require substantial change in culture, work process and enterprise management. Meeting this challenge will require taking a new approach to operations and maintenance, enterprise management, and the less tangible challenges posed by organizational and people issues.

Introduction

The problems associated with clean fuels are both complex and diverse – from the regulations themselves, covering gasoline and on-road diesel sulfur, toxics anti-backsliding, MTBE phase-out, and off-road diesel sulfur -- to phasing in the regulations, as well as such issues as fuel patents and new source review. In addition, there are market issues: Where is the current market for products? In the future, will it be better to stay in this market or move into other markets that provide better fit or greater opportunity? Which clean fuels problem to address first and with what technologies? Which recipes to blend to? How much to spend? Whether to build new or revamp? And finally, there is the need to assess risk from making decisions in an environment where the regulatory and market issues are continuously in flux

Today's problems are far more complex than phasing out lead or making reformulated gasoline. Solutions will not only be more costly to implement, but also technically and organizationally more complex. Lead phase-out, for example, was solved predominantly by several new technologies that became available at that time. With RFG the problem became more complex. Not only were additional technologies required, but a tremendous effort in blending and planning was necessary as well.

But, meeting the new clean fuels challenge will require even greater effort. Individual technologies and better planning and blending alone will not necessarily lead to success. Today's

challenges require a more integrated approach. Technology solutions must be combined with programs to achieve operational excellence and to improve enterprise management. Clean fuels will likely require change across the entire refining and marketing enterprise.