



aspentONE Advanced Process Control for Polymers Solution Delivers Major Performance Improvements at PetroChina Polyethylene Plant

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AspenTech nonlinear control solution delivers shorter grade transition times, increased production and reduced usage of consumables on Mitsui high density polyethylene unit in Daqing, China

BURLINGTON, Mass.--(BUSINESS WIRE)--Oct. 30, 2007--Aspen Technology, Inc. (Nasdaq: AZPN) today announced that PetroChina has achieved significant financial and operational benefits from implementing AspenTech's aspentONE Advanced Process Control for Polymers solution on its Mitsui high density polyethylene (HDPE) unit in Daqing, China. The solution has delivered annual savings of \$640,000 -- equivalent to \$8 per tonne -- through increased yield and reduced usage of key reactor consumables. These savings, combined with a 28 percent decrease in off-specification material produced during grade transitions, have provided PetroChina with a rapid return-on-investment.

"We are delighted with the performance improvements achieved using the aspentONE advanced process control solution," said Mr. Cao Jingliang, Chief Engineer of the PetroChina Daqing polyolefin plants. "AspenTech's unique control technology coupled with the domain expertise of its polymers specialists were key contributors to the success of this project. Being able to automate even the most complex of transition strategies, such as a reactor configuration change, is a significant breakthrough and has enhanced our competitive position."

The aspentONE solution formed the basis of a comprehensive optimization strategy on the 80kt/yr HDPE unit. PetroChina's project objectives were to maximize production yield and production rate, stabilize the reactor operation, reduce catalyst consumption, minimize venting and reduce the amount of off-specification product manufactured during product grade transitions. A key requirement was to automate and optimize the challenging product transitions which are typical of the Mitsui HPDE process.

The solution was implemented by advanced process control consultants from AspenTech's Professional Services group. Following completion of the project, PetroChina Daqing has realized significant performance benefits including successfully optimizing transitions involving a parallel-to-series reactor configuration change. The measured benefits include:

- Increased production capacity by 2.9 percent
- Reduced transition off-specification material by 28 percent
- Reduced catalyst consumption by 6 percent
- Reduced hydrogen consumption by 22 percent
- Reduced ethylene loss by 3kg/tPE

"China is now a major producer and consumer of polyolefins, and PetroChina is investing in innovative technology to maintain its position as a leading player in this highly competitive marketplace," said Blair Wheeler, Senior Vice President at AspenTech. "With its unique ability to optimize even the most complex product transitions, the aspentONE Advanced Process Control for Polymers solution is delivering significant operational benefits and a fast return on investment for a rapidly growing number of polymer producers worldwide."

PetroChina deployed AspenTech's aspentONE for Polymers advanced process control suite which includes a full nonlinear model predictive controller, comprehensive recipe management and full process sequencing capability. The controller remains on-line at all times, delivering fully automated and optimized product transitions.

About PetroChina

PetroChina, one of the largest companies in the People's Republic of China in terms of sales, is engaged in a broad range of activities related to its exploration and production, refining and marketing, chemicals and natural gas businesses. Daqing Petrochemical is one of China's largest chemical plants, and produces many kinds of chemical products. For more information, visit www.petrochina.com.cn.

About AspenTech

AspenTech is a leading provider of award-winning process optimization software and services. AspenTech's integrated aspentONE solutions enable manufacturers to reduce costs, increase capacity, and optimize operational performance end-to-end throughout the engineering, plant operations, and supply chain management processes, resulting in millions of dollars in cost savings. For more information, visit www.aspentech.com.

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