
A photograph of a large industrial refinery tower with complex piping and scaffolding.

**Project : Amine Fuel Gas Contactor Unit**  
Montreal, (Québec), Canada

**Client : Petro-Canada**

**Project Description :**

A photograph showing several hands holding and reviewing documents on a table.

Petro-Canada's Montreal-East refinery HP DEA fuel gas contactor was scheduled for replacement due to corrosion concerns and severe hydrogen blistering. Making use of the situation, Petro-Canada decided to increase the tower's fuel gas handling capacity from 14 to 20 MMSCFD. The tower operated at 175 psig, and was 5' – 6" in diameter.

Ultragen was mandated to perform the preliminary and detailed engineering for the design of the new amine tower and to carry-out the revamping of all auxiliary facilities including the flare system, amine, sour, and lean gas piping systems. The new DEA contactor tower, conceptualized by Ultragen, made use of a semi rich amine stream and a clean lean amine stream. The amine flow rate was set at 300 USGPM of lean and 500 USGPM of semi-rich.


In spite of the challenges that were faced during the design, such as the removal of  $H_2S$ , the tight project timeline, and layout limitations, Ultragen was able to achieve the desired capacity increase within the allocated time restrictions and without replacing any of the existing exchangers or pumps.

**Refining**

**Year of realization : 2006**  
**Project Value : 3.2 M\$**

**Services offered by Ultragen :**

- Project Management
- Project cost estimation and scheduling
- Process simulation and design of new amine fuel gas contractor unit
- Specification and design of new contactor tower (ASME)
- 3D modeling and design of auxiliary piping systems
- On-site technical support throughout the construction phase
- Start-up support

A photograph of a refinery tower with yellow safety railings and scaffolding.

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