Tabula Rasa Energy addresses tank protection with T205 tank blanketing regulators

RESULTS

- Increased personnel safety
- Tank protected from collapse during pump-out
- Oxygen kept out of tank to protect against combustion
- Reduced delivery uncertainty due to short lead time

APPLICATION

Tank blanketing liquid storage tanks with natural gas

CUSTOMER

Tabula Rasa Energy, LLC, in conjunction with Nicholas Consulting Group & Vinson Process Controls

Site – Seminole, Texas, USA (West Texas)

Tabula Rasa is engaged in the acquisition and development of mature oil fields with the goal of using carbon dioxide injection to realize an additional incremental oil wedge otherwise left stranded in ground. It has operations in New Mexico, Oklahoma, Texas, and the Permian basin. The company was founded in 2010.

CHALLENGES

Tabula Rasa's main goal for using tank blanketing is to protect their tank equipment. Specifically, they want to prevent tanks from collapsing during pump-out. All 29 tanks at the site can be pumped. By blanketing these tanks, sufficient pressure is maintained inside them, so that a vacuum cannot be created which would cause the tank to collapse. Another benefit of blanketing the tanks that is valued is that the process keeps oxygen out. The presence of oxygen could otherwise lead to combustion through the system's compressor.

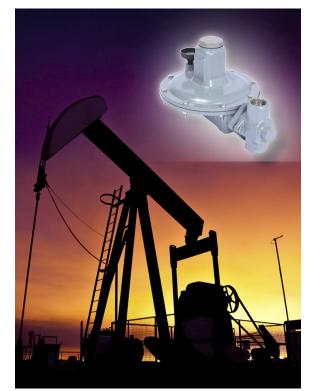
Other challenges included meeting the project's schedule requirements, and having a simple, economical solution. The short lead time and the direct-operated design of the T205 met both of these requirements well.



TANK MANAGEMENT

By blanketing its tanks, Tabula Rasa Energy maintains sufficient pressure inside them, so a vacuum cannot be created which would cause the tanks to collapse. This process increases safety.

Angel Valles Mechanical Engineer, Nicholas Consulting Group



Tabula Rasa Energy used the T205 tank blanketing regulator.



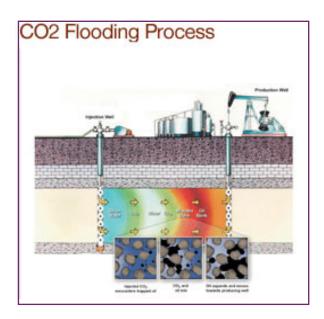






Figure 1. Tabula Rasa Energy focuses on the acquisition and development of mature oil fields, most often, under waterflood, with the ultimate goal of injection CO2 to realize an additional incremental oil wedge otherwise left stranded in ground. Its business strategy is to maximize near-term cashflow through revitalization and stimulation workovers accretive to oil production.All revitalization and stimulation projects are done with conscious effort in preparation for long-term production growth through CO2 flooding

Figure 2. CO2 injection is an attractive tertiary-flooding method because at certain temperatures and pressures the injected CO2 becomes mutually soluble with the reservoir crude, mobilizing an additional bank of recoverable oil. The general process of CO2 flooding usually involves the injection of an initial slug of gas to contact bypassed oil from a waterflood and mobilize the residual oil saturation through reductions in interfacial tension. Once the CO2 slug is injected, a Water-Alternating-Gas (WAG) process usually follows, helping maintain conformance and stability of the flood front thereby mitigating early gas breakthrough.



Emerson Process Management Regulator Technologies, Inc. Americas - Worldwide Headquarters Europe 3200 Emerson Way McKinney, Texas 75070 USA T: +1 800 558 5853 T: +1 972 548 3574

F: +1 972 542 6433

www.emersonprocess.com/regulators

T: +39 051 4190606

Asia Pacific T: +65 6770 8337

Middle East T: +971 4811 8100

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