

SLIPSTREAM® TECHNOLOGY TURNS VENT GAS EMISSIONS INTO FUEL

Challenge Targa Resources voluntarily initiated a SlipStream® technology project to evaluate the system as a means of reducing/eliminating reciprocating compressor packing vent gas.

The purpose of the project was to reduce the amount of vented emissions at the Targa – Chico Gas Plant. Internal operational goals were set to identify potential air emission sources. With the use of an infrared camera, reciprocating compressor leaks became more apparent as a vented emission source. The standard maintenance practices for rod packing changes were followed, but it was determined during an infrared camera survey of the facility that reciprocating rod packing vent gas was being emitted.

Solution Targa worked with representatives from T.F. Hudgins, Incorporated, to evaluate the SlipStream gas/fuel recovery system, which is designed to capture vented hydrocarbons and reuse them as an alternative fuel source for natural gas engines.

The SlipStream design includes a computer control system, valve train to control vent gas header pressure, and a flow controller to limit vent gas flow to the engine. The valve train incorporates the same thermal mass flow technology found in the TFH 3000 flowmeter. It provides data to the control algorithm and records the amount of vented gases captured and sent to the engine as fuel. The SlipStream control system maintains a data log of captured rod packing gas, which is used to calculate greenhouse (GHG) emissions and fuel gas savings. Warning/alarm notifications of flow rates allow improved scheduling of rod packing maintenance.

The SlipStream system was initially installed on a White 8GTL-825/Superior MW-64, 4- throw compressor.

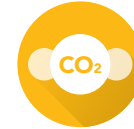
Results After the SlipStream system was installed, infrared camera inspection of the vent header confirmed that no rod packing gases were being vented to atmosphere.

From an environmental standpoint, Targa has achieved their goal of reducing VOC and methane emissions. So far, the system has documented 3.1496 MMSCF of captured rod packing emissions, which equates to 1,421 tons of carbon dioxide equivalent that has been prevented from venting to the atmosphere.

For more details and information about this project and the solutions expertise available from T.F. Hudgins, Incorporated, visit www.tfhudgins.com.



Captured Rod Packing Emissions
3.1496 MMSCF



Carbon Dioxide Equivalent Contained
1,421 Tons



Fuel Savings
\$17,905



From an economic perspective, Targa operations are benefiting from improved fuel efficiency and lower maintenance costs. To date, cumulative fuel savings amount to \$17,905. The facility has also benefited from reduced frequency of rod packing changes.

Based on results from the project, Targa Resources received the Environmental Excellence Award from the Gas Processors Suppliers Association. SlipStream systems have now become a standard feature at Targa North Texas facilities.

