Critical Data. Real Time.

Loading Terminal Measurement

Introduction

Liquid hydrocarbons have been output from gathering systems for years and been handled in a variety of ways. However, the increase in production of high gravity, lighter crudes from the shale formations, has brought a new need to measure and manage the volatility of these products. In addition, the increasing need to utilize rail and roads to bring product to market has elevated the focus on the safe handling of Crude and Condensate. Between 2008 and 2013, the number of crude oil originated rail car loads increased from 9,500 to almost 400,000, according to AAR (www.aar.org).

This huge increase in product movement on road and rail has strained the existing terminal loading infra-structure. Today, product must be on- or off-loaded safely, accurately and as quickly as possible. However, traditional methods of measuring product volatility, or Vapor Pressure, are necessarily slow and require extensive sampling system or, worse, manual sampling to effectively operate. In addition, in order to accurately follow existing methods for RVP (D323) and VPCR (D6377), the product must be brought to 100F, which often causes clogging of the sampling apparatus, and thereby renders traditional vapor pressure analyzers useless while further increasing maintenance and operating costs.

Rail Loading Terminal

Solutions

With NIR-based optical technology, which is new to the oil and gas industry, operators can now measure vapor pressure in-line, at pressure, with no sampling required. Developed specifically to measure the volatility of crude oil, NGL and condensate, the Verax VPA™ provides real-time measurement of vapor pressure during loading operations. This new technology not only increases economic efficiency but also reduces the level of risk during transportation.

By measuring with probes directly in the pipeline at operating pressure and temperature, the Verax VPA eliminates any concern of paraffin clogging, which is often associated with measuring vapor pressure. The VPA returns a measurement every few seconds to ensure that the product being loaded or unloaded meets vapor pressure specifications from start to finish.

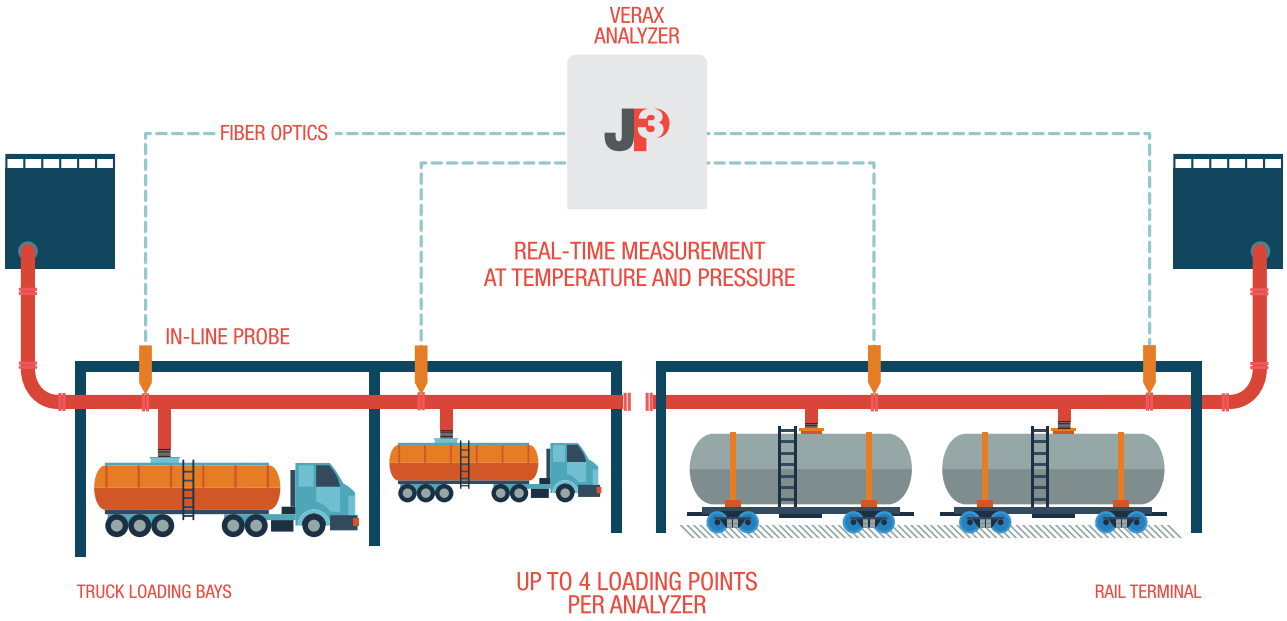
Verax VPA is currently in use at midstream facilities, loading/unloading terminals and on pipelines across most of the major oil & gas basins in the United States.

Verax™ VPA Installation

Verax Cost Advantage Calculator

	Verax™	Traditional Analyzer	Verax $$ Benefit
Response Time	Seconds	7.5 Minutes	
Sample System	None	Required	
Analyzer House	None	Required	
Maintenance Costs	Very Low	High	
Consumables	None	Yes	
Uptime	99%		
Waste Product	None	Yes	
		Net Verax Advantage	

Verax Loading Diagram



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