http://www.tulsaworld.com/business/tulsabusiness/zeeco-calls-its-new-direct-flare-monitoring-technology-a-game/article_39ac7da3-f6f6-5015-b2c6-69b43f34d632.html

Zeeco calls its new direct flare-monitoring technology a 'game-changer'

By Rhett Morgan For the TB&LN Aug 1, 2017

Zeeco Inc. employee Garret Midgley turns a valve on the multi-point ground flare Wednesday at the company's 250-acre campus in Broken Arrow. IAN MAULE/Tulsa World

BROKEN ARROW — A global manufacturer of combustion and environmental equipment is taking the guesswork out of combustion efficiency.

Zeeco Inc., headquartered on a 250-acre campus in Broken Arrow, recently launched a new system for real-time industrial flare monitoring called The FlareGuardian.

The direct flare-monitoring technology meets key U.S. Environmental Protection Agency requirements for ensuring that flares such as those used in a typical petroleum refinery meet mandated emission standards and operate at peak efficiency.

"In terms of moving the needle, it's a game-changer," said Brian Duck, Zeeco's global business manager of flare systems, in an interview last week at the company's facility in Broken Arrow. "It's the first device of its kind. There is no other way to monitor combustion efficiency remotely continuously."

This new method for flare monitoring has been proven accurate through a series of large-scale validation tests. The technology, known as Video Imaging Spectro-Radiometry, is an advanced, multi-spectral infrared imager that in addition to measuring combustion efficiency, also measures and reports the level of smoke in the flame day or night, resulting in less assist fuel consumption, more efficient combustion and lower overall flare emissions.

Previously, flare operators have been limited to indirect flare monitoring options. Cost savings vary depending on the current indirect monitoring method employed, but, in many cases, can save more than 50 percent of the capital, operation and maintenance costs over the life of the equipment, Zeeco said.

Unburnt hydrocarbons react with sunlight and other pollutants to form ozone, which is a main component of smog.

“The EPA says you can’t (emit) smoke from more than five minutes in any two-hour period,” Duck said. “So companies have actually hired people to look at the monitor just to see if there is smoke. If it does (have smoke), they have to self-report themselves to their local environmental authority.

“So with this, because it reads out and documents the smoke level, you don’t have to sit there and look at it. You can go back and look at the history of the readout of this device.”

Initially, Zeeco is focusing the technology on the U.S. and Canadian markets, he said. The first FlareGuardian is being installed for a Texas customer in the liquefied natural gas industry.

“The LNG industry has been big over the last few years because all the shale gas that’s available,” Duck said.

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About Zeeco Inc.

WHAT: Zeeco makes advanced combustion and environmental systems for the refining, production, petrochemical, LNG (liquefied natural gas), power, pharmaceutical, marine and offshore and biogas industries.

FOUNDED: 1979

CORPORATE HEADQUARTERS: 100,000-square-foot manufacturing facility sits on 250-acre campus in Broken Arrow.

EMPLOYEES: 650 in Broken Arrow, 1,300 worldwide.

GLOBAL FOOTPRINT: Zeeco has more than 20 international offices and has installed systems in more than 100 countries.

Staff Writer Rhett Morgan

Son of a Missouri High School Journalism Teacher of the Year, Rhett is in his fourth decade as a reporter. He joined the Tulsa World in 1992 after spending five years with the Tulsa Tribune and two years with the Jackson (Tenn.) Sun. Phone: 918-581-8395