APPENDIX 2 – MEDIA COVERAGE OF FIST 2019 WORKSHOPS

Workshops examine ways to mitigate flaring

By Mella McEwen

Reducing emissions would improve environment, boost producers' bottom line

At the University of Colorado at Boulder on April 23 and at a later date a Unico Marcellus workshop coordinated by West Virginia University and the Petroleum Technology Transfer Council. Hunt said an updated white paper will be released following the final workshop later this year.

"The objective is to look at flaring mitigation," said Hunt. "The question is how much did we flare yesterday and how much do we do about it today?"

One benefit of the workshop is that industry representatives get together and talk with each other and create a synergy to better address flaring solutions, said Andrea Wilcox, research scientist, energy production, with HARC.

"Part of the barrier is an issue with infrastructure," said Mike McMahon, chief executive officer of EcoVapor Recovery Systems. "Either there’s not a pipeline to carry the natural gas away or it’s full."

McMahon’s company worked with Shell to reduce flaring in the Permian Basin and he credited the major operator with displaying global environmental leadership. He said Shell wants zero-emissions wells sites, and while they’re down 80 percent, he said their desire is to reduce flaring 99 percent.

That is an illustration of how companies have evolved, he said.

"It’s not enough to be environmentally compliant; they want to have an impact on greenhouse gases, they want to be more and more environmentally friendly. They’re seeing the issue as important," said Hans Munster, EcoVapor’s chief technology officer, accompanied McMahon to Midland for the workshop. He said the company is working with more than 20 producers.

Munster likened the technology to catalytic converters in automobiles.

"Our technology removes oxygen from the natural gas and allows operators to eliminate their emission prolific and boosts their bottom line," he said. "That’s further helping the economy. By eliminating emissions, operators can put more wells on a facility without violating their air permit. They can be more efficient with their operations. They can put eight wells instead of two on a pad, use the same road, the same infrastructure, spread the costs. Everyone gets more, from the state to the royalty owner to the producer."

Capturing that natural gas is an opportunity that’s not being realized, he said.

"The gas in those tanks is the richest gas stream on location — three or four times the value of regular natural gas. Opportunity has been staring us in the face this whole time, but it’s been veiled and there hasn’t been an emphasis on solving the issue."

Technology has not been an issue, said Jeff Veonitis, regulatory engineer with Hy-Bon.

"The resistance is, is it economically feasible to cut flaring?" he said. "It’s technically feasible; the question is, is it economically feasible? We’re wanting more natural gas that Texas could use, that California could use."
THE FLARING ISSUES SOLUTIONS AND TECHNOLOGIES WORKSHOP IS LOOKING AT WAYS TO MITIGATE FLARING, CAPTURE THAT GAS AND SELL IT......
Ways To Reduce Or Stop Natural Gas Venting, Flaring Remain A Central Focus

In March, the Houston Area Research Center (HARC) in partnership with Shell hosted a workshop titled, “Flaring Issues, Solutions and Technologies,” which examined flaring and considered cost-effective ways to utilize natural gas at the wellhead. Led by a panel of industry representatives from a number of various-sized operators, the group looked at specific flaring issues and sought to identify technologies that were working and, perhaps more importantly, technologies that were both working and affordable. The group reviewed major plays and worked to identify technologies designed to monetize stranded gas and reduce or eliminate gas flaring and methane emissions associated with production. The work is part of a recently approved HARC funding proposal to the U.S. Department of Energy to address flaring issues.

More than 50 participants turned out for the day’s events, which began with the operators’ panel discussion. The group went on to present case studies on topics including benzene, toluene, ethylbenzene and xylene destruction; flare gas conditioning for power generation; microturbines; and vapor recovery with oxygen removal. Additional topics included a review of technologies designed to unlock the value of stranded gas, how to best use thermal energy from wellhead gas, and how to meet the beneficial use requirements of flare-gas-to-power while reducing emissions.

In 2014, HARC’s Environmentally Friendly Drilling Systems (EfD) program conducted a thorough review regarding flaring mitigation and reduced emissions. This was followed by a series of workshops across the country that drew participation from operators, service providers and a broad audience of stakeholders that included academia, regulators and nongovernmental organizations. These workshops explored specific needs and issues related to operations to monetize natural gas at the wellhead. The discussion centered on opportunities and technologies, as well as barriers to adoption. The overall objective was to identify technologies to monetize stranded gas and reduce or eliminate gas flaring and methane emissions associated with production.

In 2015, HARC published the white paper “Recommendations to Address Flaring Issues, Solutions and Technologies.” Funded in part by DOE, the paper provided information, shared recommendations, and summarized technologies as new state and federal regulations were being promulgated to reduce natural gas flaring and venting. The report also identified regulator barriers and opportunities to monetize low-volume stranded and/or flared gas.

As new regulations have been implemented, commodity prices have fluctuated and oil and gas operations’ emissions have dropped. However, the gas-to-oil ratio has increased in some plays. As oil production has increased, infrastructure bottlenecks have created a need for additional natural gas solutions. The volume of gas that is used for electrical generation, along with the available practices, technologies and other alternatives to flaring makes it necessary to update the 2015 white paper.

HARC’s Flaring Issues Solutions and Technologies—2019 research project and subsequent updated white paper will enable stakeholders to identify cost-effective technologies that address flaring mitigation and enable operating companies to further boost U.S. production.

HARC’s Flaring Issues Solutions and Technologies—2019 research project and subsequent updated white paper will enable stakeholders to identify cost-effective technologies that address flaring mitigation and enable operating companies to further boost U.S. production. It also will provide regulators and policymakers with vital information. Results from the program possibly may be used by the National Energy Technology Laboratory to focus research, development and deployment efforts to increase resiliency within the upstream and midstream oil and gas industry in areas including safety and efficiency.

HARC is a nonprofit research organization that provides independent analysis on energy, air and water issues to people seeking scientific answers. Founded with the help of Houston oilman, real estate developer and philanthropist George P. Mitchell, HARC was established in 1982 as a university consortium that could act as a technology incubator to bridge basic research and market applications. In 2001, HARC realigned its mission to focus its research on sustainable development. HARC’s EFD program—which provides unbiased science to identify, develop and test new technologies, processes and systems to address environmental aspects associated with oil and gas activities, from well site selection through natural gas compression—was instrumental in organizing the workshop.

The Flaring Issues, Solutions & Technologies—2019 project’s overall objective is to evaluate the current state of technologies addressing natural gas flaring at well sites. If you missed the workshop in Houston, HARC and EfD are holding a series of additional workshops to identify the most applicable current practices to mitigate flaring and maximize the value of natural gas at the wellhead, as well as review barriers that prevent these practices from being applied. Workshops are scheduled to take place in Midland on April 17, in Colorado on April 23, and at a location in the Utica/Marcellus region to be announced later this spring.

Jeremy Viscomi is a strategic marketing expert for the oil and gas industry. Among his many roles, he serves as the Mid-Continent regional lead for the Petroleum Technology Transfer Council, providing independent operators with access to emerging technology aimed at reducing risk and growing profits.

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