



The application of Sloan's TriCip lubrication system has provided new perspectives on the impacts its technology can have downstream and on the climate.

Sloan Lubrication studying effects lube systems can have on equipment, pipelines and the environment.

By Mike Brezonick

A longer look at lubrication

Often when a company develops a new product, the main effect is hopefully a positive impact on the manufacturer's bottom line. There are times, however, when developing something new leads to a whole different way at looking at how a technology can impact a market segment – and even the world at large.

Sloan Lubrication Systems has discovered that through the development and launch of its TriCip lubrication system. Unveiled in late 2018, TriCip combines a proprietary lubricating fluid with a precision delivery system and advanced controls and monitoring to achieve up to a 90% reduction in compressor lube rates to address over-lubrication. More than 150 units were in operation as of the end of 2020, the company said.

Yet as TriCip has made its way into the field, it has given the Freeport, Pa.-based lube system specialist new perspectives on how lubrication issues can have an impact far beyond what has been understood before.

"What we've learned through the experience we've had with TriCip is that lube systems have a much broader effect on the overall pipeline and gas quality and operations than we'd ever really considered," said Eric Sloan, marketing manager at the family-owned manufacturer.

"Some of the issues that our customers are dealing with – contamination of the gas stream, metering station contamination, excess oil build-up in pipelines, etc. – are very big issues. TriCip is a cost-effective solution versus available options to remove excess oil after it is already in the pipeline."

Advanced control system

TriCip also offers significant benefits on the power side of integral compressors, where over-lubrication is common and problematic, Sloan said. The system's advanced control system can be utilized to automatically adjust lubrication rates based on varying engine speeds (rpm) and horsepower.

"The problem is that the gas stream isn't always the same," Sloan said. "The ethane content varies and as that changes, the rated horsepower is altered as well. If you don't adjust the lubrication rate, you're going to be over-lubricating the engine."

"That oil is either burned, which contributes directly to the emissions, or it fouls the catalysts, or it ends up in the stack getting dispersed around the site or creates a carbon buildup."

The company will be describing those issues more completely in a paper it will present at GMRC's upcoming Engine Analyzer & Reliability Workshop, to be held July 19-21

in Louisville, Ky.

"What we have learned has helped us look at it from more of a pipeline-wide perspective," Sloan said, "and understand the effects that the lubrication system can have on the entire pipeline versus just on the individual compressor or at the individual compressor station."

"I think at this point, in 2021, TriCip is saving somewhere between 35,000 and 75,000 gal. of lube oil that would otherwise end up in a pipeline. All of that does contribute directly to carbon emissions and we're trying to pivot toward thinking about what does this all mean in terms of a company's carbon impact?"

"Energy companies are setting really ambitious goals and it's made us consider how we can have a significant impact on those goals. We're starting to look at it from the perspective of how we can help our customers meet the ambitious climate goals that they're setting."

Part of the solution

In support of this new way of thinking, Sloan Lubrication Systems is in the process of addressing its own climate impacts. Beginning with a strategic planning initiative in early 2021, the company has revised its mission statement, highlighting sustainability, with a goal of implementing a defined ESG strategy by the end of the year.

"Watching the fast pace of change in our industry in response its growing understanding of long-term impacts has been fascinating. The real solutions will come from the efforts and innovation in our industry, and we want to be a part of that."