



4th Annual Sustainable & Scalable COST-EFFECTIVE WELL SITE FACILITIES ONSHORE 2017

September 26, 27 & 28, 2017 | Houston, TX



In advance of the **4th Annual Sustainable & Scalable Cost-Effective Well Site Facilities Onshore 2017**, Jan Kulmann, *Engineering Manager - Major Projects*, **Noble Energy** provides insight into her thoughts about the summit:

Jan, as operators begin to come out of the slowdown and start ramping up, particularly in the Permian Basin, new challenges and hurdles have surfaced. This year's Sustainable And Scalable Cost-Effective Well Site Facilities Onshore 2017, as the name suggests, focuses on driving efficiencies and cutting costs as much as possible, whether operators are scaling up or looking to sustain operations at current levels.

Jan, it's great that we have you with us at the event, but in the run-up to the event, what are your views on one of the biggest hurdles that operators are facing right now - and that is moving from strategic testing to development/execution mode? What are the biggest hindrances?

The world is a very different place than it was just a few years ago. We're looking at challenges in a new way that take into account not just efficiency and cost effectiveness but also public input and social responsibility. We're solving problems that exist for those that live near our facilities instead of just focusing on production value; things like noise, light and emissions reduction, strategic pipeline construction to eliminate truck traffic, and remote operations to add layers of safety. These things don't always help our bottom line but they do protect our social license to operate.

Now, current market conditions are demanding equipment which is more efficient, cheaper and less capital and operational cost intensive. Everyone is talking about optimizing production and maintenance. What is Noble's outlook?

In order to survive our future, we will always have to continue to be more efficient. Engineers like to tweak and this is another opportunity to get better by finding ways to do our business that are more efficient, more cost effective, and are more sustainable long term. Our operations teams don't have the luxury of large staff numbers so finding ways to use technology to help long term production and maintenance will be critical.

One of the things that's becoming more and more prevalent is emission requirements or emission control. How is Noble strategizing to stay within emissions limits?

Noble operates in many locations. One of the most strict areas for emissions control in the United States is in Colorado, also a large portion of Noble's onshore portfolio. Because of this, we've had to

find ways to not only design facilities that are more environmentally friendly but to also retrofit older facilities to maintain compliance. It's been a challenge but it's something that we've learned a lot from and are able to transfer knowledge across our other operating areas to help solve this issue. Using electric power when possible is a simple way to reduce onsite emissions but it can be costly and add significantly to the construction timeline. Using a variety of leaner burning fuels (natural gas or dual fuel) or updating emissions capture technology are other ways that we've found to more effectively manage emissions.

Who are you most looking forward to hearing from at the conference?

One of the benefits of this conference is the opportunity to network with others who have the same challenges that we face throughout our industry. Solving problems becomes a lot easier when we are able to bounce ideas off of each other in order to get better. I particularly enjoy talking with those that are seasoned as well as those new to the industry in order to gain the widest perspective.

You've been with us last year, and it's excellent to have you with us again. What in your opinion, are top reasons for why the industry should attend the 2017 conference in September, given the current climate and pace?

This is my 3rd year presenting at this conference. Each year I learn something new from my peers that I didn't know before. Each year we all have more challenges that we've overcome that we can share with others. Engineers love to improve and this conference gives us the opportunity to do just that.

At the **4th Annual Sustainable & Scalable Cost Effective Well Site Facilities Onshore 2017** in September, Jan will be presenting an exclusive presentation on Noble Energy's vision for the future. For more information, Visit: www.facilities-design-onshore.com

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