Serving the energy industry across the Middle East

Pipeline MAGAZINE

INTERVIEWS >> Peter Griffin

March 2004

Peter Griffin is the Vice President of International Projects for Gas Liquids Engineering (GLE) based in Calgary , Canada . GLE are one of the world's leading solution providers of engineering and project management services for natural gas treating and liquids recovery.

Richard Price recently discussed issues relating to sour hydrocarbon processing with Peter.

Peter Griffin
Gas Liquids Engineering, Vice President International Projects

Before we discuss the specific issues of sour gas in the Middle East, your company has undertaken projects throughout the world, how do you view sour gas processing from a global viewpoint?

As you are aware sour gas processing requires the total removal of hydrogen sulphide and the reduction of carbon dioxide to levels acceptable in the sales stream. Natural gas fields containing in excess of 35% H 2S are in production in Canada and although the corrosive and toxic nature of H 2S is well known, many companies are experienced in the design, fabrication and construction of such facilities. In some parts of the world, handling sour gas is a new challenge but in Canada it is a routine component of our daily business.

On a global basis what are the main challenges of sour gas processing at present?

Technology for the removal of H 2S and CO 2 from natural gas is well established although development and improvement of the processes is continuing. The main challenge at present is the disposal or utilization of the by-products. General environmental concerns restrict the flaring of these waste acid gas streams depending on local regulations and, although these regulations vary extensively across the world, all countries are under pressure to reduce gas flaring.

Global warming concerns have increased the impetus to eliminate CO 2 venting, so that the use of CO 2 for pressure maintenance or enhanced recovery may have extra environmental benefit.

The primary market for H 2S is the production of sulphur. In most locations the ability to produce sulphur from natural gas exceeds the current demand therefore we must look at disposal of H 2S or alternative uses. Disposal of H 2S into deep aquifers or depleted reservoirs, which is known as acid gas injection, has become a relatively common activity in Canada over the last ten years. The use of injected H 2S for enhanced oil recovery is also now actively being studied.

What is currently happening in the Gulf region on sour hydrocarbon matters?

I believe that all producing countries in the Middle East are increasing their familiarity with sour gas processing schemes and opportunities. In the past, Middle East hydrocarbon production was primarily focussed on oil production and much of the associated gas was flared. In the last ten years the recovery of liquids from the gas and utilization of the gas for energy generation has increased. Implementation of gas processing on the simplest streams i.e. sweet gas has been completed or is underway. The focus is now moving towards processing of associated and non-associated sour gas to recover liquids and sweet natural gas.

What is your most exciting technical challenge on these projects in the Middle East?

One of the most exciting opportunities is the high interest in H 2S injection. This is new but established technology in Canada, however the injection rates are generally less than 5 MMSCFD. Gas processing plants are generally much larger in the Middle East and on projects that GLE is currently undertaking the injection volumes can easily be 100 MMSCFD. This higher volume and frequently higher pressures will require new application of compression equipment, reservoir and wellbore studies, and process design with a very high level of personnel safety.

This technology is well established in Canada. How can it be implemented in the Middle East?

GLE is currently undertaking the design of a major acid gas injection facility in the region. Preliminary studies for similar large projects have also occurred with ADNOC and Saudi Aramco, and for projects in the

Caspian region. I expect that we will start seeing these large acid gas injection projects move from design to construction within the next 24 months.

I understand you are supporting an international seminar to be held locally to debate some of these issues.

Our company strongly believes that sharing of information, tech nology and experience on sour gas processing and acid gas injection is key optimum development of the regions sour gas resources. We believe that an exchange of views and experiences in a discussion seminar format will benefit all participants. We support the 'Sour Oil and Gas Advanced Technology (SOGAT) seminar initiative scheduled to take place in Doha and intend to participate in the event.

HOME | NEWS | FEATURES | REGULARS | COUNTRY FOCUS | MEDIA DETAILS | SUBSCRIBE | CONTACT US

Pipeline Magazine, PO Box 53777, Dubai Media City, Dubai, UAE
Tel: +971 4 3910 830 | Fax: +971 4 390 4570 | E-mail - info@pipelinedubai.com